



**AP<sup>®</sup> Macroeconomics  
2010 Free-Response Questions  
Form B**

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**2010 AP<sup>®</sup> MACROECONOMICS FREE-RESPONSE QUESTIONS (Form B)**

**MACROECONOMICS**

**Section II**

**Planning Time—10 minutes**

**Writing Time—50 minutes**

**Directions:** You have 50 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. Use a pen with black or dark blue ink.

1. A country's economy is in a short-run equilibrium with an output level less than the full-employment output level. Assume an upward-sloping aggregate supply curve.
  - (a) Using a correctly labeled aggregate demand and aggregate supply graph, show the following.
    - (i) Full-employment output, labeled as  $Y_F$
    - (ii) Equilibrium real output and price level, labeled as  $Y_E$  and  $PL_E$ , respectively
  - (b) Assume that the country's government increases domestic military expenditures. On the graph from part (a), show how the increased military expenditures affect the following in the short run.
    - (i) Aggregate demand
    - (ii) Equilibrium real output and price level, labeled as  $Y_2$  and  $PL_2$ , respectively
  - (c) Using a correctly labeled graph of the short-run Phillips curve, show the effect of the increased military expenditures in the short run, labeling the initial point as A and the new point as B.
  - (d) Assume that the increased military spending is financed through government borrowing. What will happen to the real interest rate? Explain.
  - (e) Assume that the economy produces only two goods: military goods and civilian goods. Using a correctly labeled production possibilities curve, show the effect of the increase in military expenditures from part (b), labeling the initial point as C and the new point as D.

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2. The central bank of the country of Sewell sells bonds on the open market.
- (a) Assume that banks in Sewell have no excess reserves. What is the effect of the central bank's action on the amount of customer loans that banks in Sewell can make?
  - (b) Using a correctly labeled graph of the money market, show the effect of the central bank's action on the nominal interest rate in Sewell.
  - (c) What is the effect of the central bank's action on each of the following in Sewell?
    - (i) Price level
    - (ii) Real interest rate. Explain.
  - (d) Given your answer in part (c)(ii), how is the international value of Sewell's currency, the ono, affected? Explain.
3. How does each of the following changes affect the real gross domestic product and price level of an open economy in the short run? Explain each.
- (a) An increase in the price of crude oil, an important natural resource
  - (b) A technological change that increases the productivity of labor
  - (c) An increase in spending by consumers
  - (d) The depreciation of the country's currency in the foreign exchange market

**STOP**

**END OF EXAM**