CollegeBoard
Advanced Placement Program

AP® Macroeconomics
2009 Free-Response Questions

The College Board

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. Assume that the United States economy is in long-run equilibrium with an expected inflation rate of 6 percent and an unemployment rate of 5 percent. The nominal interest rate is 8 percent.

   (a) Using a correctly labeled graph with both the short-run and long-run Phillips curves and the relevant numbers from above, show the current long-run equilibrium as point A.

   (b) Calculate the real interest rate in the long-run equilibrium.

   (c) Assume now that the Federal Reserve decides to target an inflation rate of 3 percent. What open-market operation should the Federal Reserve undertake?

   (d) Using a correctly labeled graph of the money market, show how the Federal Reserve's action you identified in part (c) will affect the nominal interest rate.

   (e) How will the interest rate change you identified in part (d) affect aggregate demand in the short run? Explain.

   (f) Assume that the Federal Reserve action is successful. What will happen to each of the following as the economy approaches a new long-run equilibrium?

      (i) The short-run Phillips curve. Explain.

      (ii) The natural rate of unemployment

2. Assume that as a result of increased political instability, investors move their funds out of the country of Tara.

   (a) How will this decision by investors affect the international value of Tara's currency on the foreign exchange market? Explain.

   (b) Using a correctly labeled graph of the loanable funds market in Tara, show the impact of this decision by investors on the real interest rate in Tara.

   (c) Given your answer in part (b), what will happen to Tara's rate of economic growth? Explain.

GO ON TO THE NEXT PAGE.

3. Assume that the reserve requirement is 20 percent and banks hold no excess reserves.

   (a) Assume that Kim deposits $100 of cash from her pocket into her checking account. Calculate each of the following.

      (i) The maximum dollar amount the commercial bank can initially lend

      (ii) The maximum total change in demand deposits in the banking system

      (iii) The maximum change in the money supply

   (b) Assume that the Federal Reserve buys $5 million in government bonds on the open market. As a result of the open market purchase, calculate the maximum increase in the money supply in the banking system.

   (c) Given the increase in the money supply in part (b), what happens to real wages in the short run? Explain.

STOP

END OF EXAM