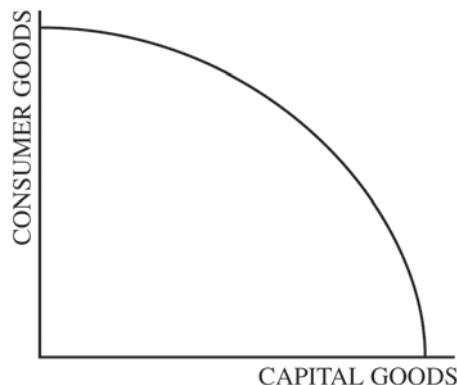


## **2013 AP<sup>®</sup> MACROECONOMICS FREE-RESPONSE QUESTIONS**

2. Assume that the country of Fischerland produces only consumer goods and capital goods.



- (a) The graph above shows the production possibilities curve for Fischerland. The production of which of the following exhibits increasing opportunity costs: consumer goods only, capital goods only, both goods, or neither good?
- (b) Redraw the graph given above. Show a point that represents fully employed and efficiently used resources on the redrawn graph and label it A.
- (c) Assume there is a recession in Fischerland. On your graph in part (b), label as C a point representing the recession.
- (d) Identify a fiscal policy action that the Fischerland government can take to address the recession.
- (e) Assume instead that no discretionary policy actions are taken. Will short-run aggregate supply increase, decrease, or remain the same in the long run? Explain.

- 
3. Inflation and expected inflation are important determinants of economic activity.

- (a) Draw a correctly labeled graph of a short-run Phillips curve.
- (b) Using your graph in part (a), show the effect of an increase in the expected rate of inflation.
- (c) What is the effect of the increase in the expected rate of inflation on the long-run Phillips curve?
- (d) Given the increase in the expected rate of inflation from part (b),
- (i) will the nominal interest rate on new loans increase, decrease, or remain unchanged?
  - (ii) will the real interest rate on new loans increase, decrease, or remain unchanged?
- (e) Assume that the nominal interest rate is 8 percent. Borrowers and lenders expect the rate of inflation to be 3 percent, and the growth rate of real gross domestic product is 4 percent. Calculate the real interest rate.

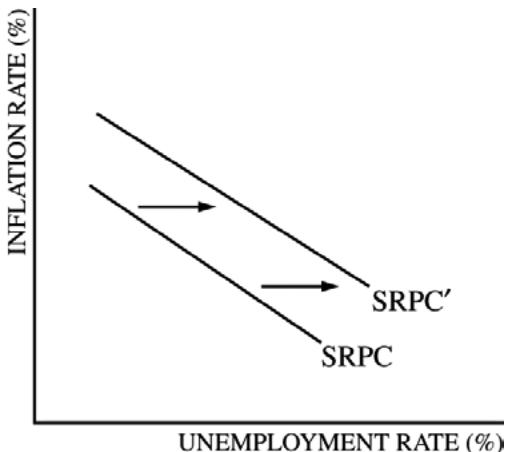
**STOP**

**END OF EXAM**

**AP<sup>®</sup> MACROECONOMICS  
2013 SCORING GUIDELINES**

**Question 3**

**6 points** (1 + 1 + 1 + 2 + 1)



(a) 1 point:

- One point is earned for drawing a correctly labeled graph of the short-run Phillips curve.

(b) 1 point:

- One point is earned for shifting the short-run Phillips curve to the right.

(c) 1 point:

- One point is earned for stating that the increase in expected inflation does not affect the long-run Phillips curve.

(d) 2 points:

- One point is earned for stating that the nominal interest rate will increase.
- One point is earned for stating that the real interest rate will remain unchanged.

(e) 1 point:

- One point is earned for calculating the real interest rate:  $8\% - 3\% = 5\%$ .