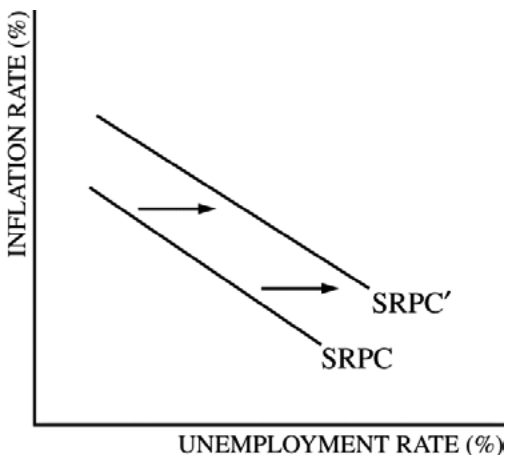


**AP[®] MACROECONOMICS
2013 SCORING GUIDELINES**

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:

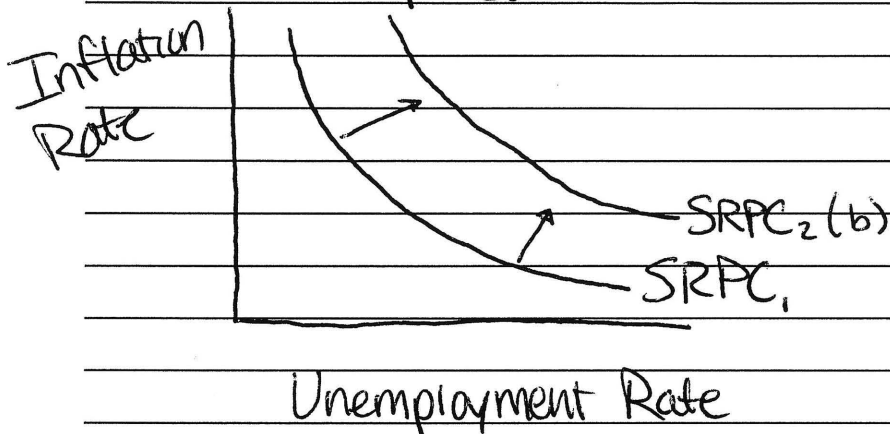
- One point is earned for stating that the nominal interest rate will increase.
- One point is earned for stating that the real interest rate will remain unchanged.

(e) 1 point:

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

ANSWER PAGE FOR QUESTION 3

a) Phillips Curve



c) There is no effect to the long run Phillips Curve due to the expected increase in inflation.

d) i) Nominal interest rates will increase ~~decrease~~ due to increase of expected inflation.

ii) Real interest rates will not change due to the increase of the expected inflation rate.

e) Nominal = 8%

Inflation = 3%

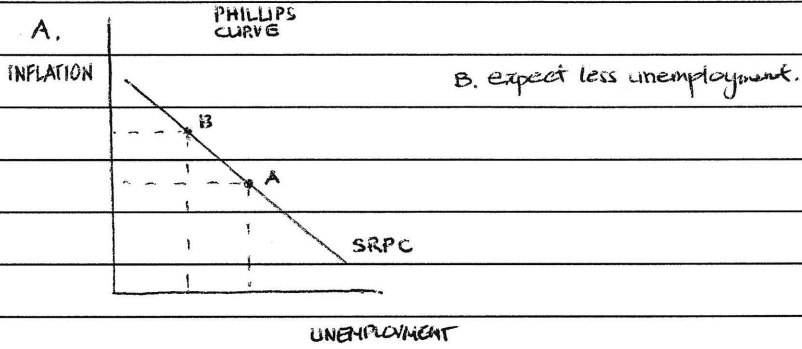
Real Interest Rate = Nominal Interest Rate - Inflation Rate

Real Interest Rate = 8% - 3%

Real Interest Rate = 5%

GO ON TO THE NEXT PAGE.

ANSWER PAGE FOR QUESTION 3



C. NO EFFECT

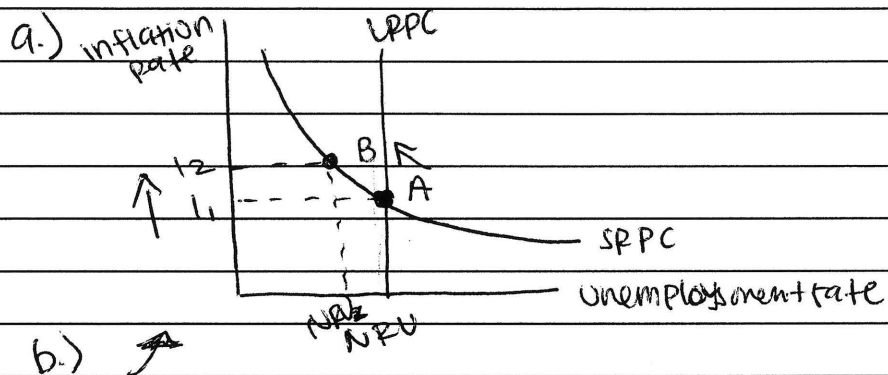
D. i. increase

ii decrease

E. $8\% - 3\% = 5\%$ (REAL i)

GO ON TO THE NEXT PAGE.

ANSWER PAGE FOR QUESTION 3



c.) There is no effect on the LRPC.

d.) Nominal interest rates will decrease.
 real interest rates will also decrease.

e.) ~~Nominal~~
 nominal - inflation = real.
 $8 - 4 = 4$
 4% = real I.R.

GO ON TO THE NEXT PAGE.

**AP[®] MACROECONOMICS
2013 SCORING COMMENTARY**

Question 3

Overview

Part (a) examined the students' ability to draw a short run Phillips curve diagram. Part (b) tested the students' ability to show the effect of an increase in inflationary expectations on their diagram from part (a). Part (c) assessed the students understanding of the effect of an increase in inflationary expectations on the long run Phillips curve. Part (d) tested students' ability to identify the effect of this increase in inflationary expectations on the nominal interest rate and the real interest rate. Part (e) tested students' ability to calculate the real interest rate from the data given.

**Sample: 3A
Score: 6**

The student answers all parts of the question correctly and so earned 6 points.

**Sample: 3B
Score: 4**

The student lost 1 point in part (b) for failing to shift the short-run Phillips curve to the right. In part (d)(ii), the student lost 1 point for incorrectly concluding that the real interest rate will decrease.

**Sample: 3C
Score: 2**

The student earned 1 point in part (a) for drawing a correctly labeled graph of a short-run Phillips curve. The student earned 1 point in part (c) for concluding that there is no effect on the long-run Phillips curve.