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# AP<sup>®</sup> Macroeconomics

## Sample Student Responses and Scoring Commentary

### Set 1

#### **Inside:**

#### **Free Response Question 2**

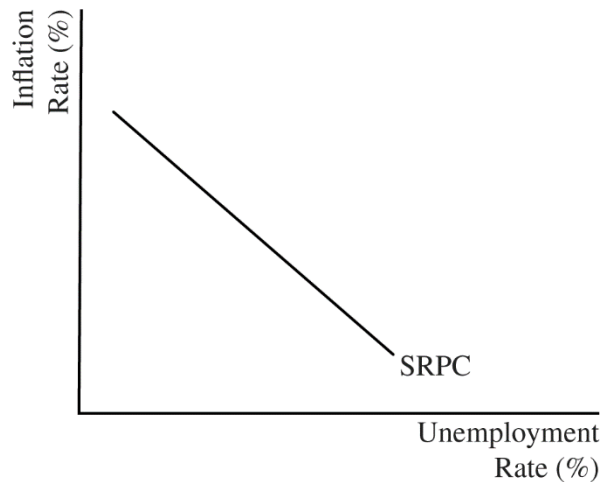
- Scoring Guideline**
- Student Samples**
- Scoring Commentary**

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2019 SCORING GUIDELINES**

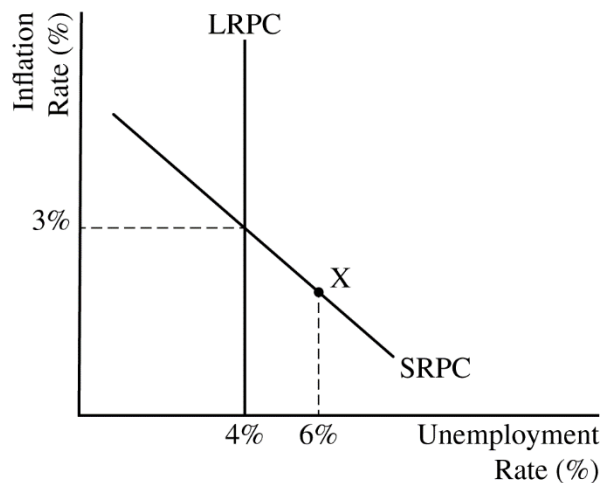
**Question 2**

**5 Points (2 + 1 + 1 + 1)**

**(a) 2 points**



- One point is earned for drawing a correctly labeled graph showing the short-run Phillips curve (SRPC).



- One point is earned for drawing the long-run Phillips curve (LRPC) showing the short-run equilibrium, labeled as point X, on the SRPC to the right of the LRPC, and for plotting the numbers in the correct places on the graph.

**(b) 1 point**

- One point is earned for stating that the actual inflation rate is less than the expected inflation rate.

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**Question 2 (continued)**

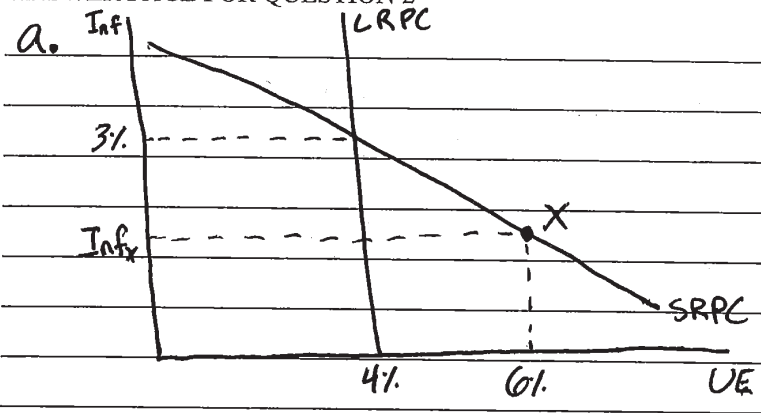
**(c) 1 point**

- One point is earned for stating that lenders will be better off and for explaining the real value of the loans that will be repaid will be higher than expected **OR** for explaining the relationship between the nominal and the real interest rates using the Fisher equation.

**(d) 1 point**

- One point is earned for stating that the natural rate of unemployment will not change in the long run.

ANSWER PAGE FOR QUESTION 2



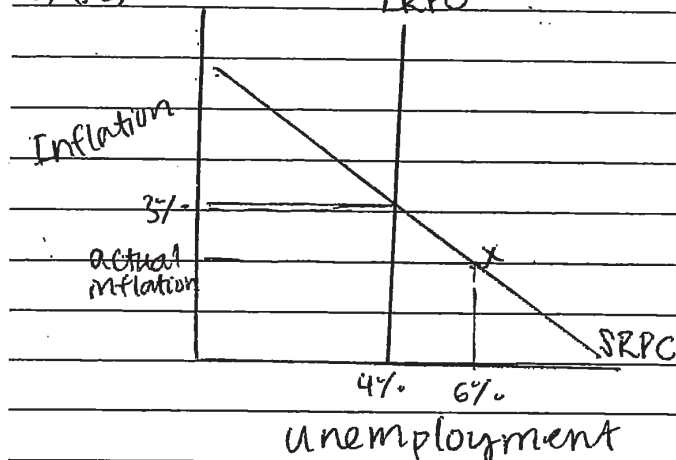
b. The actual inflation rate is less than the expected inflation rate of 3%. This is because <sup>current</sup> unemployment is higher than the natural rate of unemployment and unemployment and inflation have an inverse relationship.

c. Lenders will be better off due to the inflation rate being lower than expected. This is because they will be paid back in money that is more valuable than they initially expected.

d. In the long run, the natural rate of unemployment will remain the same and the current rate of unemployment will decrease back to the natural rate.

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ANSWER PAGE FOR QUESTION 2

2) a) Phillips Curve  
LRPC

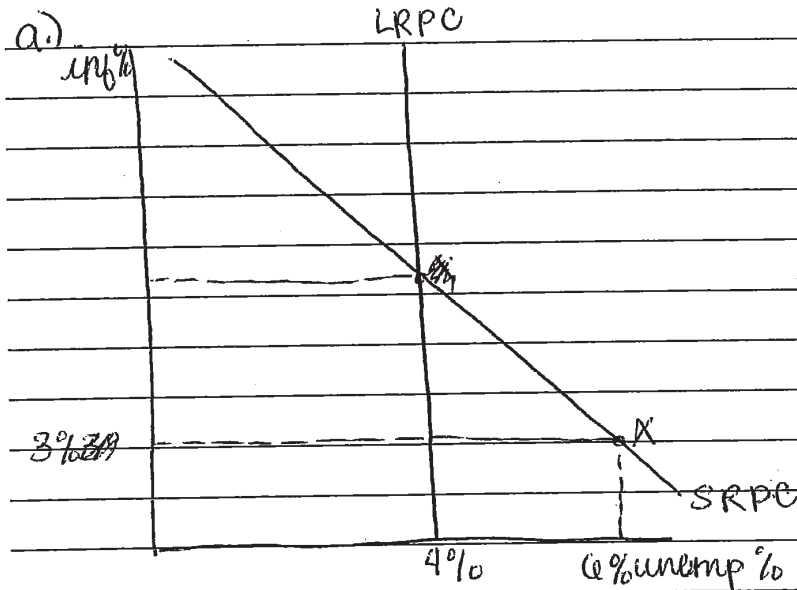
b) The actual inflation rate is less than the expected inflation rate of 3%.

c) Lenders will be worse off because they expected borrowers to have to pay them more than the borrowers were lent (the lenders took into account the expected inflation). However, because actual inflation is less than expected, the borrowers will pay less than projected and the lenders will be worse off than if the actual inflation was equal to or greater than the expected inflation.

d) Natural unemployment will increase because expected inflation for the future will take into account past actual inflations and because inflation was less than expected, according to the SRPC, the natural unemployment rate (LRPC will shift to the right) will increase.

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ANSWER PAGE FOR QUESTION 2



b.) ~~is in a possible recessionary gap.~~  
 greater than.  
~~a decrease in inflation~~  
~~rate would be~~  
~~the economy would~~  
~~be in a recessionary~~  
~~gap.~~  
 the graph shows  
 that the economy

c.) Lenders would be worse off since the actual inflation rate is higher than expected, which means that they would also lose more money than expected.

d.) b.) (CONTINUED) is in a possible recessionary gap. To fix the gap and return to equilibrium, ~~the~~ actual inflation rate should be higher than expected.

d.) It would probably change ~~as~~ because as inflation increases, frictional + structural unemployment would be more prevalent in the economy as purchasing power decreases.

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## 2019 SCORING COMMENTARY

### Question 2

**Note:** Student samples are quoted verbatim and may contain spelling and grammatical errors.

#### Overview

The question examined students' understanding of the short-run and long-run Phillips curve models, as well as their understanding of the relationship between real and nominal values. In the prompt students were asked to assume that the expected inflation rate was 3%, the current unemployment rate was 6%, and that the natural rate of unemployment was 4%. In part (a) students were asked to draw a correctly labeled graph of the short-run Phillips curve (SRPC) and the long-run Phillips curve (LRPC). Furthermore, students were asked to use the information from the prompt to label a point X to indicate the short-run equilibrium in the economy. Part (b) asked students to identify whether the actual inflation rate was greater than, less than, or equal to the expected inflation rate of 3%. Then, given the expected inflation rate of 3%, part (c) asked students to explain whether lenders would be better or worse off after realizing the actual inflation rate that had been identified in part (b). Finally, part (d) asked students to consider the relationship between actual and expected inflation by determining what would happen to the natural rate of unemployment given the state of the economy depicted in part (a).

#### Sample: 2A

**Score: 5**

The student answers all parts of the question correctly and earned all 5 points.

#### Sample: 2B

**Score: 3**

The student did not earn 1 point in part (c) for incorrectly stating that lenders will be worse off when the actual inflation rate is less than the expected inflation rate. The student did not earn 1 point in part (d) for stating that the natural rate of unemployment will increase.

#### Sample: 2C

**Score: 1**

The student earned 1 point in part (a) for drawing a correctly labeled graph showing the SRPC.