Student Performance Q&A:

2006 AP® Macroeconomics Free-Response Questions

The following comments on the 2006 free-response questions for AP® Macroeconomics were written by the Chief Reader, Arthur Raymond of Muhlenberg College in Allentown, Pennsylvania. They give an overview of each free-response question and of how students performed on the question, including typical student errors. General comments regarding the skills and content that students frequently have the most problems with are included. Some suggestions for improving student performance in these areas are also provided. Teachers are encouraged to attend a College Board workshop to learn strategies for improving student performance in specific areas.

Question 1

What was the intent of this question?

This question tested students' understanding of aggregate economic analysis, including short-run equilibrium, full employment, the effects of an adverse supply shock, and the effect of aggregate economic changes on the foreign exchange market. Part (a) of the question required students to demonstrate a less-than-full-employment equilibrium. Part (b) asked them to draw a graph to show the effect of an increase in the price of oil on short-run aggregate supply and the equilibrium output and price level. Part (c) required an explanation of the connection between the changes in part (b) and unemployment in the short run. In parts (d) and (e) students were required to show the effect of a lower output level on the supply of dollars in the foreign exchange market and the resulting change in the dollar exchange rate.

How well did students perform on this question?

Student performance was quite good. The mean score was 5.99, which is about 55 percent of the maximum possible score of 11 points. The question about the connection between output and the supply of United States dollars in the foreign exchange market in part (d) was clearly the most troublesome for students.

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What were common student errors or omissions?

The most common error was the inability to establish the connection between falling output (income) and decreased imports, which leads to a decrease in the supply of dollars on the foreign exchange market. The next most common error was the failure to draw a properly labeled graph of the foreign exchange market. Finally, in part (c) students were often unable to connect falling output with an increase in the unemployment rate.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

It is essential to emphasize a proper foreign exchange diagram, with the variables being measured on the vertical and horizontal axes, as well as the supply and demand functions. Because the equilibrium value of foreign exchange can be shown as equilibrium between dollar supply and demand, or equilibrium between foreign currency supply and demand, it is useful to develop both frameworks. Equally important is the effect of changes in macro variables like interest rates, output, and income levels on the supply of and/or demand for dollars (and foreign currencies).

Question 2

What was the intent of this question?

The question assessed students' ability to use the money demand/money supply framework to show changes in the equilibrium *nominal* interest rate and the loanable funds framework to show changes in the *real* interest rate. The last part of the question asked students to determine the effect of a change in expected inflation on the real and nominal interest rates.

How well did students perform on this question?

Student performance on this question was relatively low. The mean score of 2.78 was about 35 percent of the maximum possible score of 8 points.

What were common student errors or omissions?

In part (a) students generally did not understand that an increase in income will increase money demand. (Many incorrectly increased the money supply.) In part (b) students demonstrated a general unfamiliarity with the loanable funds explanation of the real interest rate. In part (c) the most common error was the inability to understand the effect of an increase in expected inflation on the nominal interest rate.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

It is important to establish that the money supply/money demand framework is the easiest way to explain the equilibrium nominal interest rate and that the loanable funds framework is the easiest way to explain the equilibrium real interest rate. Students must be familiar with both frameworks. It must also be established that the expected rate of inflation is the link between the nominal interest rate and the real interest rate.

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Question 3

What was the intent of this question?

The question tested students' knowledge of the natural rate of unemployment and the construction of the official unemployment rate.

How well did students perform on this question?

Student performance was good. The mean score was 3.25, constituting about 47 percent of the maximum possible score of 7 points.

What were common student errors or omissions?

The most common error was students' inability to draw a properly labeled graph of the long-run Phillips curve and interpret how a change in the natural rate of unemployment affects the long-run Phillips curve. In addition, students had trouble with the concept and determinants of the natural rate of unemployment.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

Students should understand that the long-run Phillips curve is vertical at the natural rate of unemployment, and they should be aware of the factors that determine the natural rate of unemployment.

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