
AP[®] Macroeconomics

Sample Student Responses and Scoring Commentary Set 2

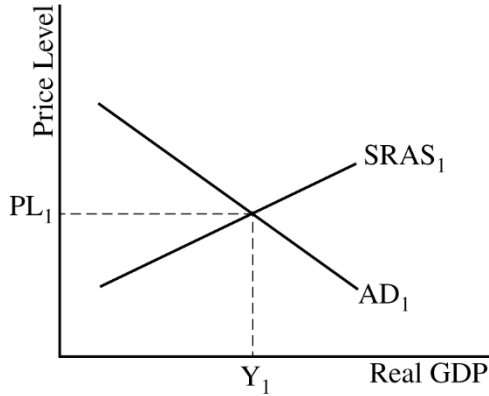
Inside:

Free Response Question 1

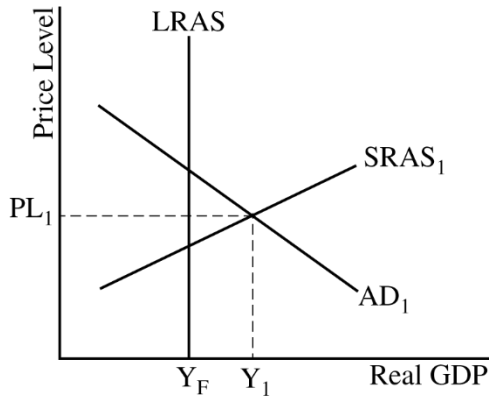
- Scoring Guideline**
- Student Samples**
- Scoring Commentary**

Question 1: Long **10 points**

- (a) Draw a correctly labeled aggregate demand–aggregate supply graph that shows PL_1 and Y_1 at the intersection of AD_1 and $SRAS_1$. **1 point**

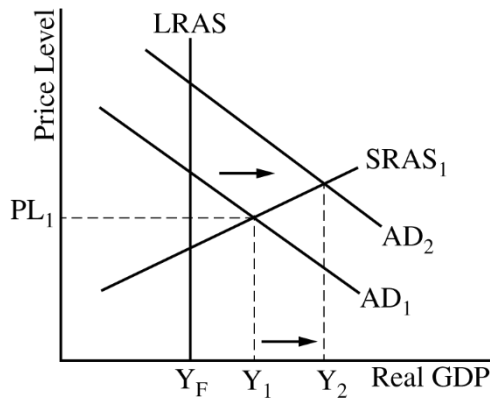


For the second point, the graph must show a vertical $LRAS$ curve to the left of Y_1 and label the full employment output Y_F . **1 point**

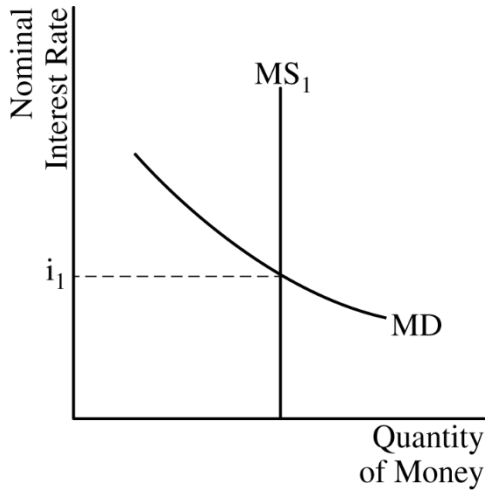


Total for part (a) 2 points

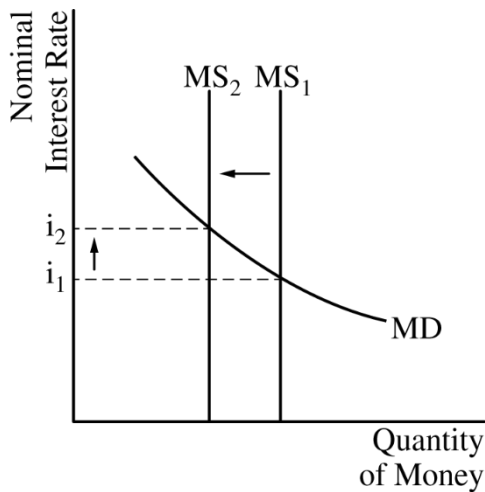
- (b) On the graph from part (a), show the impact of the government’s action with a rightward shift of the AD curve and an increase in short-run equilibrium real output labeled Y_2 . **1 point**



- | | | |
|---------------------------|--|-----------------|
| (c) (i) | State that the natural rate of unemployment will not change. | 1 point |
| (ii) | State that nominal interest rates will increase and explain that this is because the increase in real output will increase the demand for money. | 1 point |
| Total for part (c) | | 2 points |
| (d) | State that the central bank should sell bonds. | 1 point |
| (e) | Draw a correctly labeled graph of the money market. | 1 point |



For the second point, the graph must show a leftward shift in the money supply curve, resulting in a higher nominal interest rate. **1 point**



Total for part (e) 2 points

- | | | |
|-----|---|----------------|
| (f) | State that Smithland’s currency will appreciate and explain that this is because there will be financial capital inflows as foreign investors seek higher returns in Smithland, which will increase the demand for Smithland’s currency or decrease the supply of Smithland’s currency. | 1 point |
|-----|---|----------------|

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- (g)** State that Smithland’s imports will increase and explain that this is because the appreciation of Smithland’s currency means that foreign goods will be relatively less expensive. **1 point**

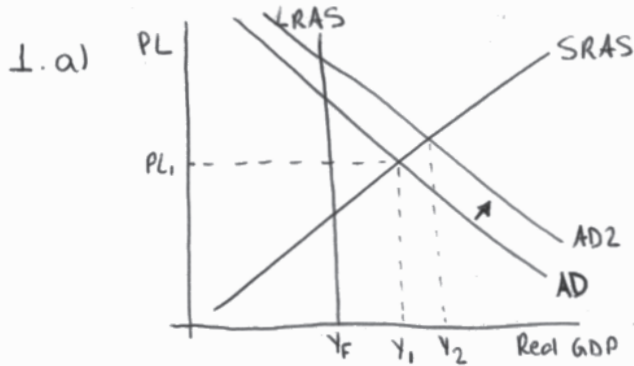
Total for question 1 10 points

Q1 Sample A Page 1 of 1

Question 1 Question 2 Question 3



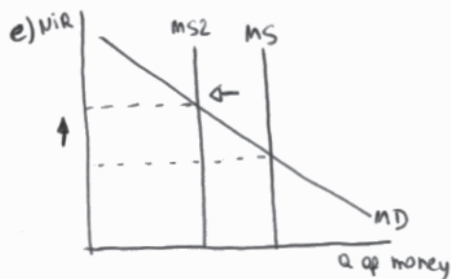
Begin your response to each question at the top of a new page.



c) i) the natural rate of unemployment will stay the same.

ii) the nominal interest rate will increase because the increase in aggregate demand will increase the demand for money, therefore, increasing the nominal interest rate.

d) the central bank should sell bonds to correct an inflationary gap.



f) the international value of Smithland's currency will be higher because the currency of Smithland's will appreciate as an increase in nominal interest rates attracts more savers from other countries to save at Smithland's.

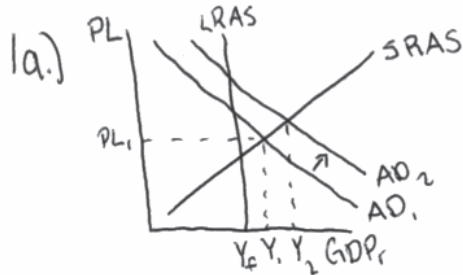
g) Smithland's imports will increase because Smithland's currency will be appreciated which causes foreign goods to be cheaper, ~~so~~ consequently, causing an increase in the purchase of those goods (increase in imports).

Q1 Sample B Page 1 of 2

Question 1 Question 2 Question 3



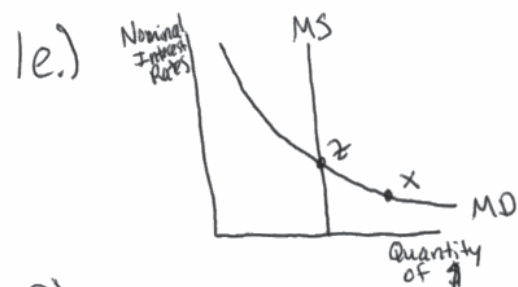
Begin your response to each question at the top of a new page.



1b.) on graph

1c.) The natural rate of unemployment will decrease because more people will have jobs due to the cut on taxes and they will want to work. Nominal interest rates will ~~decrease~~ decrease because inflation is so high people should not ~~be~~ be putting money in banks

1d.) ~~Buy~~ Sell bonds



Nominal interest rates will increase from point ~~X~~ X to Z.

1f.) The value of Smithlands currency will appreciate because people will want it to invest money

Q1 Sample B Page 2 of 2

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page.

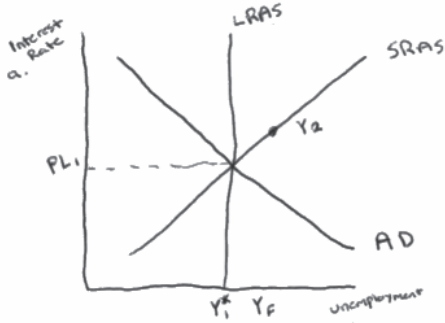
1g.) Smithlands imports will decrease because the currency is valuable and will be more expensive for other countries.

Q1 Sample C Page 1 of 1

Question 1 Question 2 Question 3

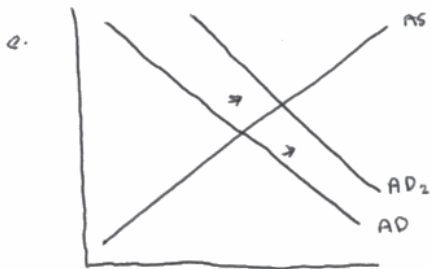


Begin your response to each question at the top of a new page.



- c. increase
- cii. They will increase because the equilibrium is shifting right along the SRAS curve.

d. Sell government bonds.



f. It will appreciate, this is due to inflation reducing.

g. Smithland's imports will increase due to their money appreciating.

Question 1

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

Overview

The question examined students' understanding of the aggregate demand/aggregate supply (AD/AS) in an inflationary gap in Smithland, and the link to fiscal and monetary policies, the natural rate of unemployment and the nominal interest rate, and the effect of the policies on the foreign exchange market. Part (a) required students to identify the short-run aggregate demand, the long-run aggregate supply and the aggregate demand curves in a graph, show the current equilibrium real output, the price level, and the full-employment output level. In part (b), students were asked to assume that the government in Smithland cuts individual income taxes and to show and label the short-run effects on equilibrium real output in the graph in part (a). In part (c), based solely on the change in real output in part (b), students were asked to indicate what will happen to the natural rate of unemployment in the short-run and what will happen to the nominal interest rate and to explain why the nominal interest rate changed. In part (d), students were asked to assume instead that the central bank intervenes to correct the inflationary output gap and indicate what open-market operation action the central bank will take. In part (e), students were asked to draw a correctly labelled graph of the money market and show the effect of the open market operation identified in part (d) on the nominal interest rate. Part (f) required students to use the effect on interest rate identified in part (e) to show and explain what will happen to the international value of Smithland's currency in the foreign exchange market. Finally, in part (g), based solely on the change in the foreign exchange rate identified in part (f), students were asked to indicate and explain, whether the hypothetical economy's imports will increase, decrease, or stay the same.

Sample: 1A

Score: 9

- The response earned 1 point in part (a)(i) for drawing a correctly labeled aggregate demand-aggregate supply graph showing Y_1 and PL_1 .
- The response earned 1 point in part (a)(i) for correctly showing a vertical LRAS curve to the left of Y_1 and labelling the full employment output Y_f .
- The response earned 1 point in part (b) for correctly shifting AD to the right and showing an increase in real output labeled Y_2 .
- The response earned 1 point in part (c)(i) for stating that the natural rate of unemployment is unchanged.
- The response earned 1 point in part (c)(ii) for stating that nominal interest rates will increase because of the increase in the demand for money that results from the increase in aggregate demand.
- The response earned 1 point in part (d) for stating that the central bank should sell bonds.
- The response earned 1 point in part (e) for drawing a correctly labeled graph of the money market and earned 1 point for correctly shifting money supply to the left and showing an increase in the nominal interest rate.
- The response did not earn the point in part (f) because the explanation of Smithland's currency appreciation does not tie the increase in financial capital inflows to the increase in demand for the currency.
- The response earned 1 point in part (g) for stating that Smithland's imports will increase because foreign goods will become relatively cheaper.

Question 1 (continued)**Sample: 1B****Score: 5**

- The response earned 1 point in part (a)(i) for drawing a correctly labeled aggregate demand-aggregate supply graph showing Y_1 and PL_1 .
- The response earned 1 point in part (a)(i) for correctly showing a vertical LRAS curve to the left of Y_1 and, it labels the full employment output Y_f .
- The response earned 1 point in part (b) for correctly shifting AD to the right and showing an increase in real output labeled Y_2 .
- The response did not earn the point in part (c)(i) for stating that the natural rate of unemployment will decrease.
- The response did not earn the point in part (c)(ii) for stating that nominal interest rates will decrease.
- The response earned 1 point in part (d) for stating that the central bank should sell bonds.
- The response earned 1 point in part (e) for drawing a correctly labeled graph of the money market and did not earn the second point for not showing a leftward shift of the money supply.
- The response did not earn the point in part (f) because the explanation of the appreciation is not tied to capital inflows and the demand for the currency.
- The response did not earn the point in part (g) for stating that Smithland's imports will decrease.

Sample: 1C**Score: 1**

- The response did not earn the point in part (a)(i) because of the incorrect labeling of axes.
- The response did not earn the point in part (a)(ii) because LRAS is not to the left of Y_1 .
- The response did not earn the point in part (b) because the increase in real output is not shown on the graph.
- The response did not earn the point in part (c)(i) for stating that the natural rate of unemployment will increase.
- The response did not earn the point in part (c)(ii) because the explanation is not tied to an increase in money demand.
- The response earned 1 point in part (d) for correctly stating that the central bank should sell bonds.
- The response did not earn the 2 points in part (e) because the money market is not correctly drawn.
- The response did not earn the point in part (f) because the explanation of the appreciation is not tied to capital inflows and to the demand for the currency.
- The response did not earn the point in part (g) because the explanation does not refer to foreign goods being relatively less expensive.