

2021

AP[®]

 CollegeBoard

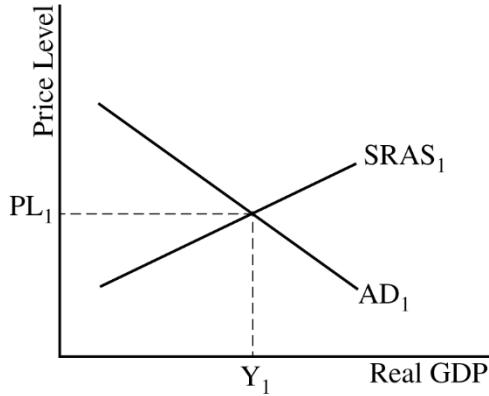
AP[®] Macroeconomics

Scoring Guidelines

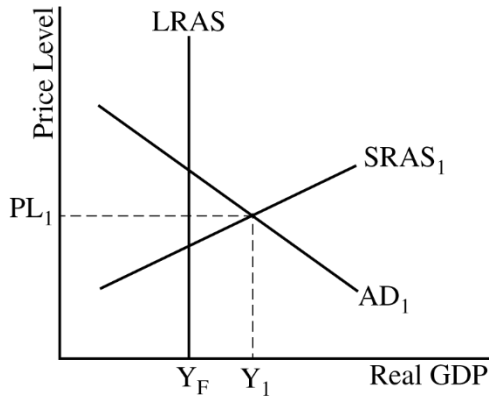
Set 2

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**

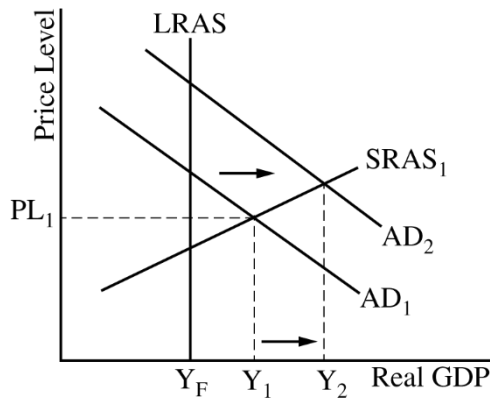


- For the second point, the graph must show a vertical LRAS curve to the left of Y_1 and label the full employment output Y_F . **1 point**

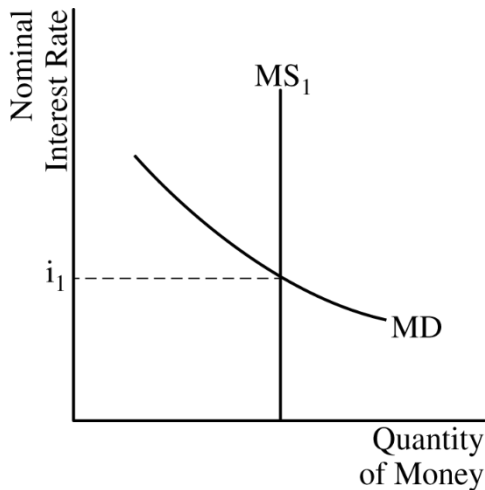


Total for part (a) 2 points

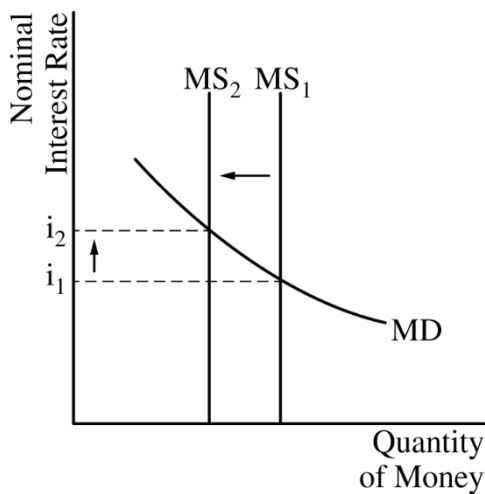
- (b) On the graph from part (a), show the impact of the government’s action with a rightward shift of the AD curve and an increase in short-run equilibrium real output labeled Y_2 . **1 point**



(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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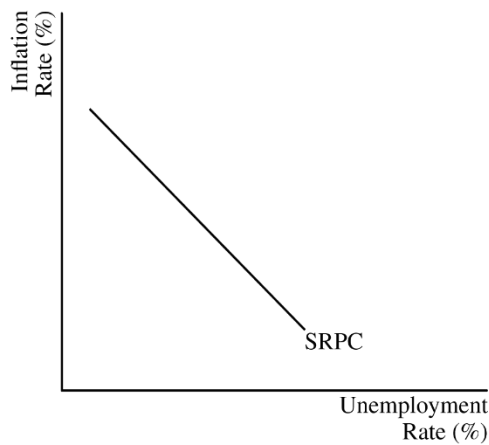
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- (g)** State that Smithland’s imports will increase and explain that this is because the appreciation of Smithland’s currency means that foreign goods will be relatively less expensive. **1 point**
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Total for question 1 10 points

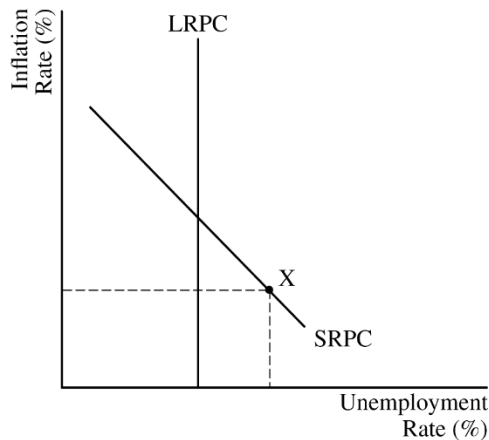
Question 2: Short

5 points

(a) Draw a correctly labeled graph of the SRPC. **1 point**



For the second point, the graph must include a correctly labeled LRPC and show point X on the SRPC to the right of the LRPC. **1 point**



Total for part (a) 2 points

(b) (i) Calculate the minimum change in government spending as \$150 billion and show your work. **1 point**

$$\frac{\text{Change in GDP}}{\text{Spending Multiplier}} = \frac{\$600 \text{ billion}}{1/(1 - 0.75)} = \frac{\$600 \text{ billion}}{4} = \$150 \text{ billion}$$

(ii) Calculate the minimum change in taxes as \$200 billion and show your work. **1 point**

$$\frac{\text{Change in GDP}}{\text{Tax Multiplier}} = \frac{\$600 \text{ billion}}{-0.75/(1 - 0.75)} = \frac{\$600 \text{ billion}}{-3} = -\$200 \text{ billion}$$

Total for part (b) 2 points

(c)	Explain that SRAS will increase in the long run due to a decrease in nominal wages, input prices, or inflationary expectations.	1 point
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Total for question 2 5 points

Question 3: Short**5 points**

(a) (i) State that the government budget will move into deficit in the short run and explain that tax revenues (T) will decrease and transfer payments (TR) will increase. **1 point**

(ii) State that the government debt will increase. **1 point**

Total for part (a) 2 points

(b) Identify an increase in taxes or a decrease in government spending. **1 point**

(c) State that the actual unemployment rate will increase in the short run and explain that aggregate demand will decrease, which will decrease real output. **1 point**

(d) State that the government’s efforts to maintain a balanced budget made Geeland’s recession more severe in the short run and explain that in order to maintain a balanced budget, the government had to implement contractionary fiscal policy during a recession. (It is also acceptable to explain that the government’s efforts to maintain a balanced budget will decrease real output or aggregate demand and that unemployment will increase.) **1 point**

Total for question 3 5 points