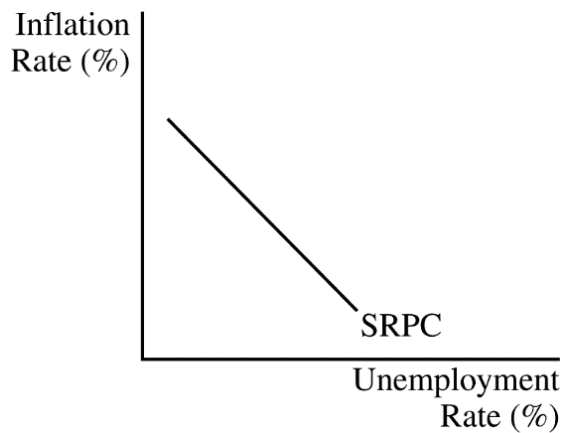
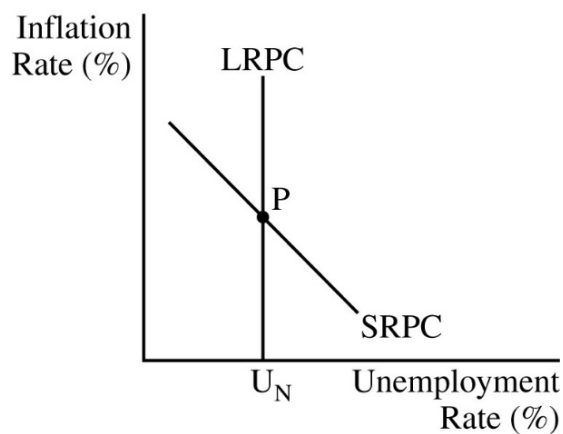


Question 1: Long**10 points****A** Draw a correctly labeled graph of the short-run Phillips curve (SRPC).**1 point**

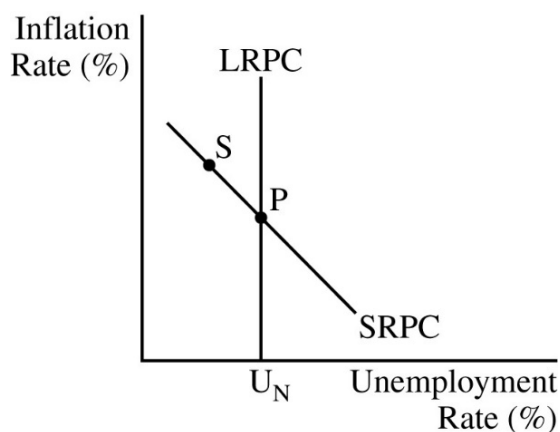
Point 1



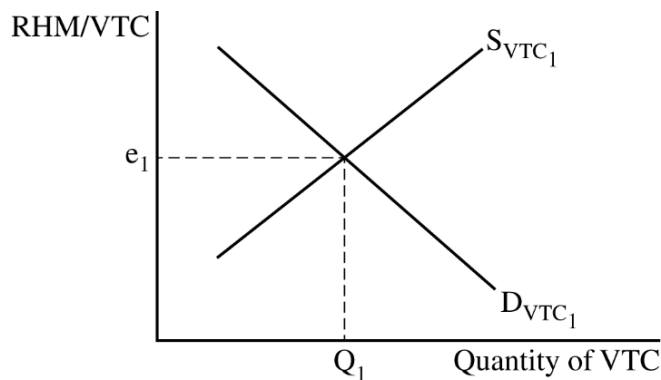
Point 2 The graph must include a correctly labeled long-run Phillips curve (LRPC) and show a point labeled P at the intersection of the short-run and long-run Phillips curves.

1 pointPoint 3 **B (i)** State that real output will increase and explain that the new residential construction projects increase investment spending, which increases aggregate demand.**1 point****(ii)** On the graph from part A, show a point labeled S on the SRPC to the left of point P.**1 point**

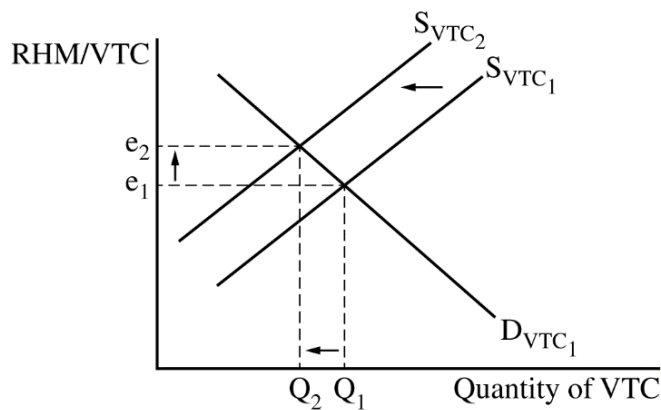
Point 4



- C** Draw a correctly labeled graph of the foreign exchange market for the Vortanian crown. **1 point**
Point 5



- Point 6 The graph must show a leftward shift in the supply curve of the Vortanian crown, resulting in an appreciation of the Vortanian crown. **1 point**



- D** State that Vortania's net exports will decrease. **1 point**

Point 7

- E (i)** State that the capital and financial account (CFA) balance in Vortania will move into surplus and explain that the current account (CA) moved into deficit and the balance of payments must balance ($CA + CFA = 0$). **1 point**
Point 8

- (ii)** State that employment in Vortania will decrease. **1 point**

Point 9

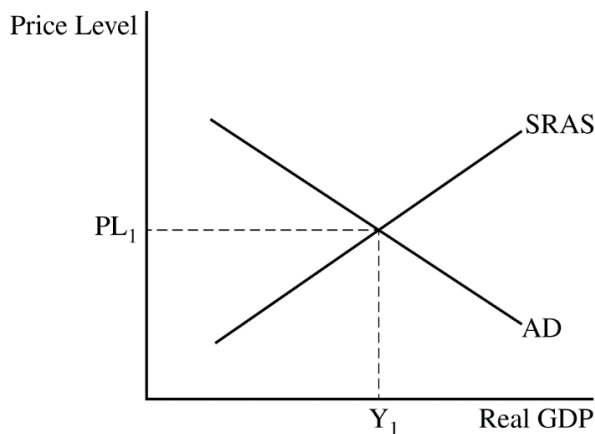
- F** State that the central bank of Vortania would sell Vortanian crowns in the foreign exchange market and explain that the increased supply of the Vortanian crown will cause it to depreciate. **1 point**
Point 10

Question 3: Short**5 points**

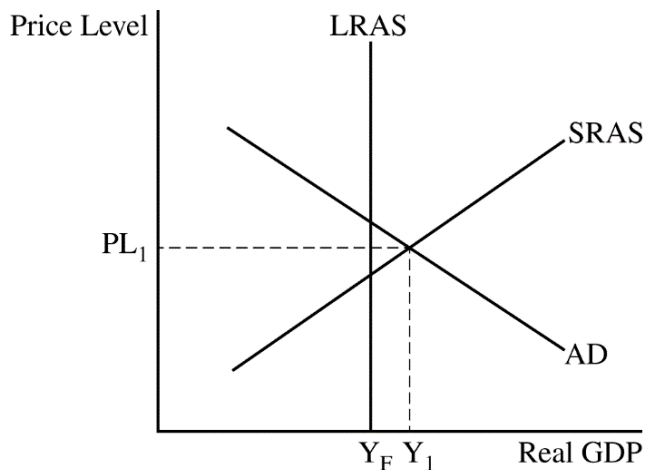
A State that the real GDP in 2021 was equal to the nominal GDP in 2021 and explain that **1 point**
 Point 1 because 2021 is the base year, no price level changes have occurred, and real values always equal nominal values in the base year.

B Calculate the real GDP in Middleland in 2022 as \$1,190 and show your work. **1 point**
 Point 2 $\text{Real GDP} = (\$11 \times 50) + (\$4 \times 70) + (\$12 \times 30) = \$1,190$

C Draw a correctly labeled aggregate demand–aggregate supply graph that shows PL_1 and **1 point**
 Point 3 Y_1 at the intersection of the aggregate demand (AD) and short-run aggregate supply (SRAS) curves.



Point 4 The graph must show a vertical long-run aggregate supply (LRAS) curve to the left of Y_1 and label the full-employment output as Y_F . **1 point**



D Calculate the minimum change in government spending as a decrease of \$8 and show **1 point**
 Point 5 your work.

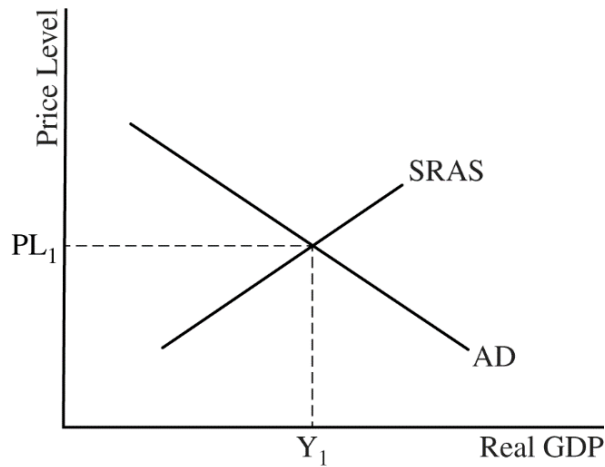
$$\text{Min Change} = \frac{\text{Output Gap}}{\text{Spending Multiplier}} = \frac{(\$1,150 - \$1,190)}{\frac{1}{(1 - 0.8)}} = \frac{-\$40}{5} = -\$8$$

2019**AP[®]** **CollegeBoard**

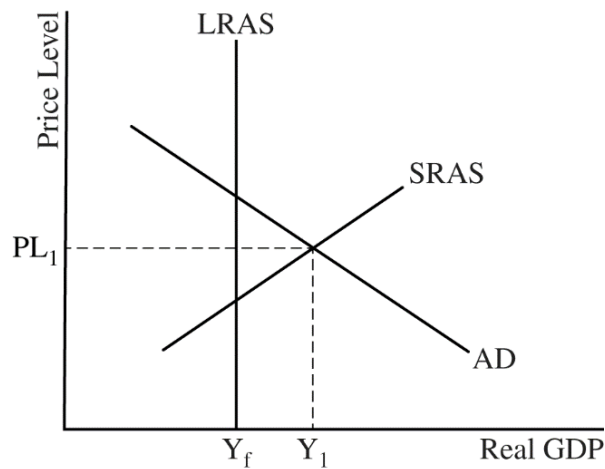
AP[®] Macroeconomics

Scoring Guidelines

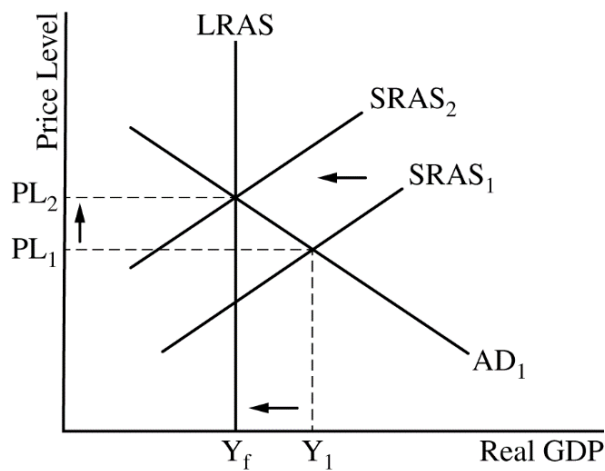
Set 2

2019 SCORING GUIDELINES**Question 1****10 points (2 + 2 + 3 + 2 + 1)****(a) 2 points**

- One point is earned for drawing a correctly labeled graph showing a downward sloping aggregate demand (AD) curve, an upward sloping short-run aggregate supply (SRAS) curve, the equilibrium output level labeled Y_1 , and the equilibrium price level labeled PL_1 .



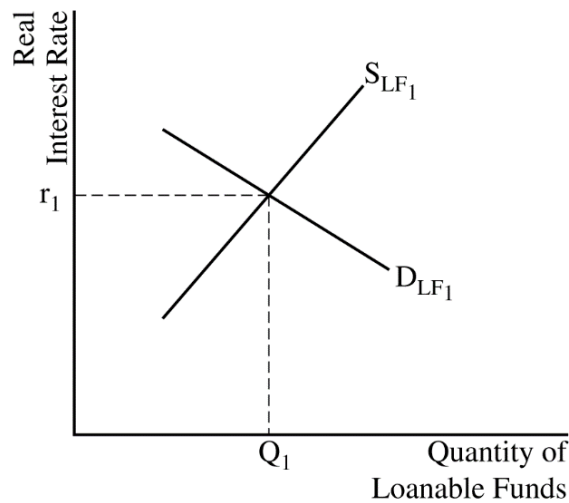
- One point is earned for drawing a correctly labeled vertical long-run aggregate supply (LRAS) curve with full employment output labeled Y_f to the left of the short-run equilibrium output level, Y_1 .

2019 SCORING GUIDELINES**Question 1 (continued)****(b) 2 points**

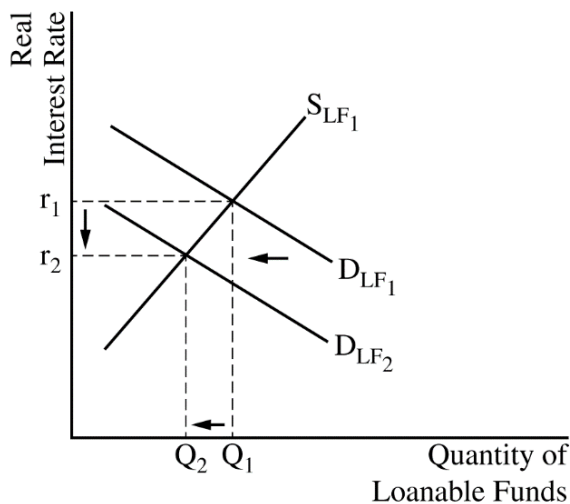
- One point is earned for showing a leftward shift in the SRAS curve and for showing PL_2 higher than PL_1 .
- One point is earned for explaining that the SRAS curve will shift to the left due to the increase in input prices, nominal wages, or inflationary expectations.

(c) 3 points

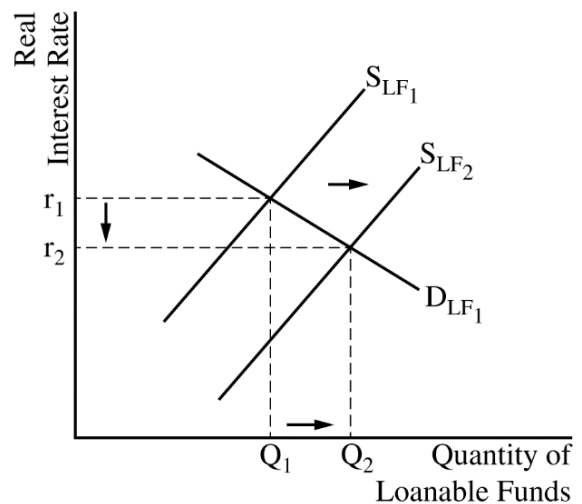
- One point is earned for stating a decrease in government spending, a decrease in transfer payments, or an increase in taxes.
- One point is earned for stating that the unemployment rate will increase and the natural rate of unemployment will not change.
- One point is earned for stating that the automatic adjustment will produce a higher price level than the fiscal policy.

2019 SCORING GUIDELINES**Question 1 (continued)****(d) 2 points**

- One point is earned for drawing a correctly labeled graph of the loanable funds market.



OR



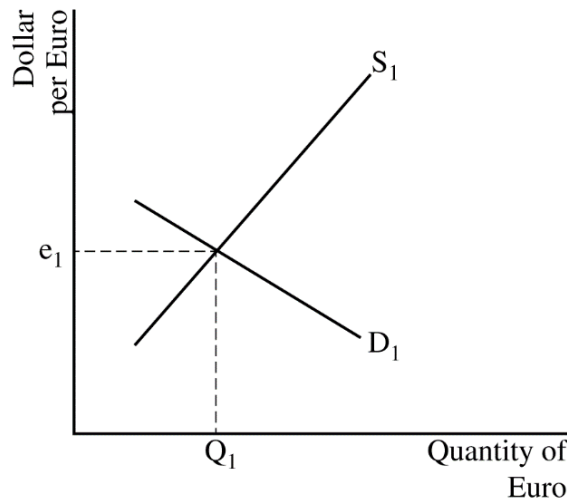
- One point is earned for showing a leftward shift of the demand for loanable funds curve (or a rightward shift in the supply of loanable funds curve) and a decrease in the real interest rate.

(e) 1 point

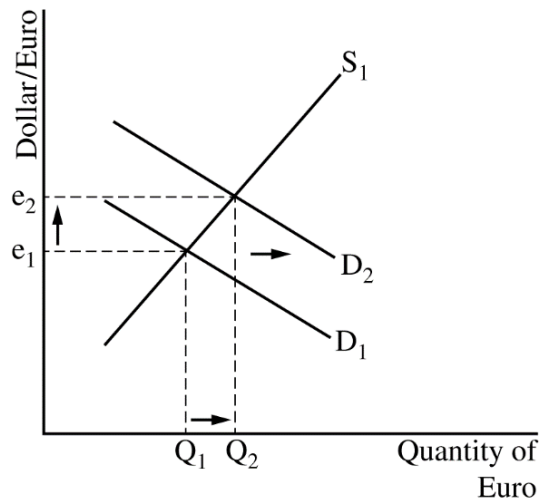
- One point is earned for stating that the LRAS curve will shift to the right and for explaining that the lower real interest rate will lead to increased capital formation due to increased investment spending.

2019 SCORING GUIDELINES**Question 2****5 points (1 + 2 + 2)****(a) 1 point**

- One point is earned for stating that the U.S. current account will be in deficit and for explaining that an increase in the U.S. real GDP increases the U.S.'s demand for European goods and services, which increases imports.

(b) 2 points

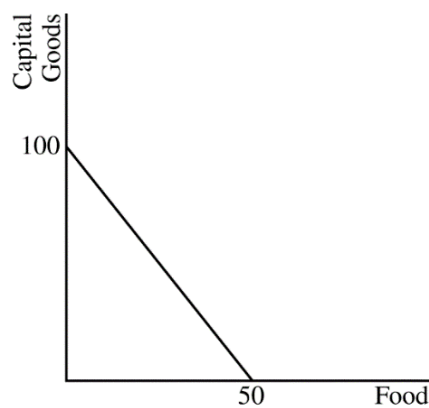
- One point is earned for drawing a correctly labeled graph of the foreign exchange market for the euro.



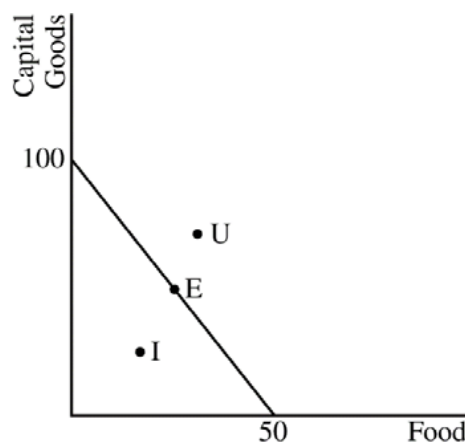
- One point is earned for shifting the demand curve for the euro to the right and showing an increase in the value of the euro relative to the U.S. dollar.

2019 SCORING GUIDELINES**Question 2 (continued)****(c) 2 points**

- One point is earned for stating that the demand for the dollar will decrease and for explaining that capital flows from the European Union to the U.S. will decrease.
- One point is earned for stating that the dollar will depreciate.

2019 SCORING GUIDELINES**Question 3****5 points (1 + 1 + 1 + 1 + 1)****(a) 1 point**

- One point is earned for drawing a correctly labeled production possibilities curve (PPC) for Sweden with food on the horizontal axis, capital goods on the vertical axis, and the relevant numerical values plotted.

**(b) 1 point**

- One point is earned for showing point I inside the PPC, point E on the PPC, and point U outside the PPC.

(c) 1 point

- One point is earned for stating that Sweden's economic growth rate will slow or be reduced.

2019 SCORING GUIDELINES**Question 3 (continued)****(d) 1 point**

- One point is earned for stating that Norway has a comparative advantage in the production of capital goods and for explaining that it has the lowest opportunity cost in producing capital goods (the opportunity cost of producing one unit of capital goods in Norway is $1/4$ a unit of food and in Sweden is $1/2$ a unit of food).

(e) 1 point

- One point is earned for stating a number between 20 and 40 units of capital.