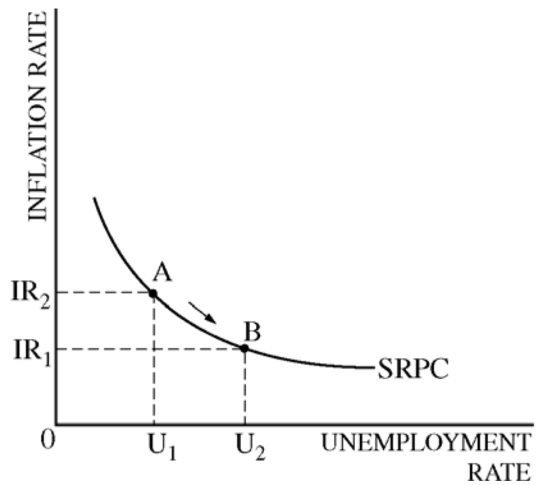
AP® MACROECONOMICS
2008 SCORING GUIDELINES

Question 1

11 points (2 + 2 + 3 + 2 + 2)

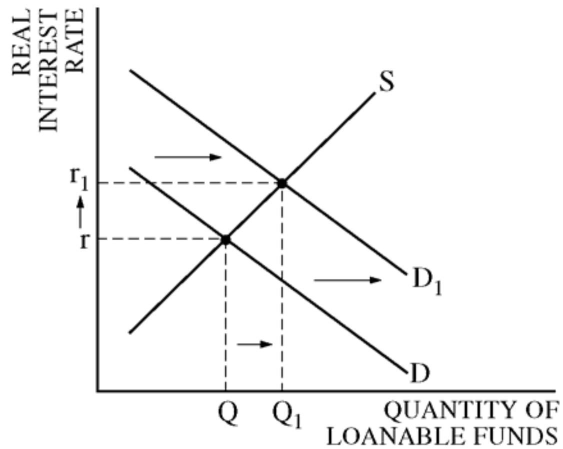


(a) 2 points:
- One point is earned for a correctly labeled graph of the short-run Phillips curve (SRPC).
- One point is earned for showing on the SRPC the initial position "A" and the new position "B".

(b) 2 points:
- One point is earned for stating that the federal budget will be in a deficit.
- One point is earned for explaining that government spending (or transfer payments) will increase and/or tax revenues will fall due to the recession.

(c) 3 points:
- One point is earned for correctly calculating the increase in government purchases: Change in G = Recessionary gap/Multiplier = ($500/5) = $100.
- One point is earned for stating that a larger reduction in personal income taxes is required than the $100 billion increase in government spending.
- One point is earned for explaining that households do not spend all of the initial increase in disposable income caused by a tax reduction, or that the tax multiplier is smaller than the government spending multiplier.

Question 1 (continued)



(d) 2 points:
- One point is earned for a correctly labeled graph of the loanable funds market.
- One point is earned for showing a rightward shift of the demand curve and showing a higher real interest rate. (A leftward shift of the supply curve showing a higher interest rate is also accepted.)

(e) 2 points:
- One point is earned for stating that the growth rate will fall.
- One point is earned for explaining that investment spending decreases and, as a result, capital formation will decrease.

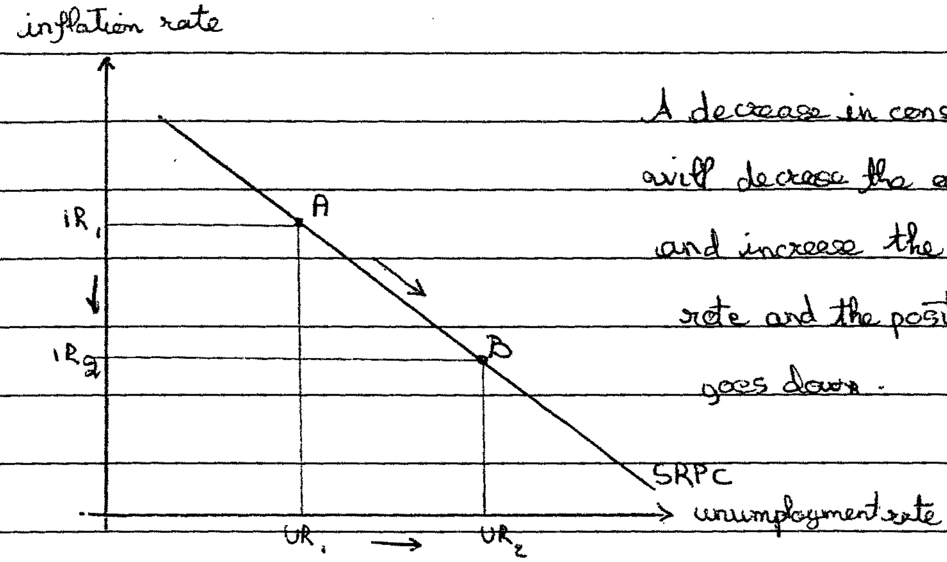
Write in the box the number of the question you are answering on this page as it is designated in the exam.

Question 1

1A₁

I

(a)



Short Run Phillips curve

A decrease in consumer spending will decrease the aggregate demand and increase the unumployment rate and the position on SRPC goes down.

(b) Since the country certainly has automatic stabilizers, then, in a recession period, with lower wages, people will pay less taxes and the government will suffer a budget deficit.

(c) (i) $\$500 \text{ billion} = x \times \frac{1}{1-\text{MPC}}$

$$= x \times 5$$

$$x = \$100 \text{ billion}$$

So with the action of the spending multiplier, the government will only have to do \$100 billion spending.

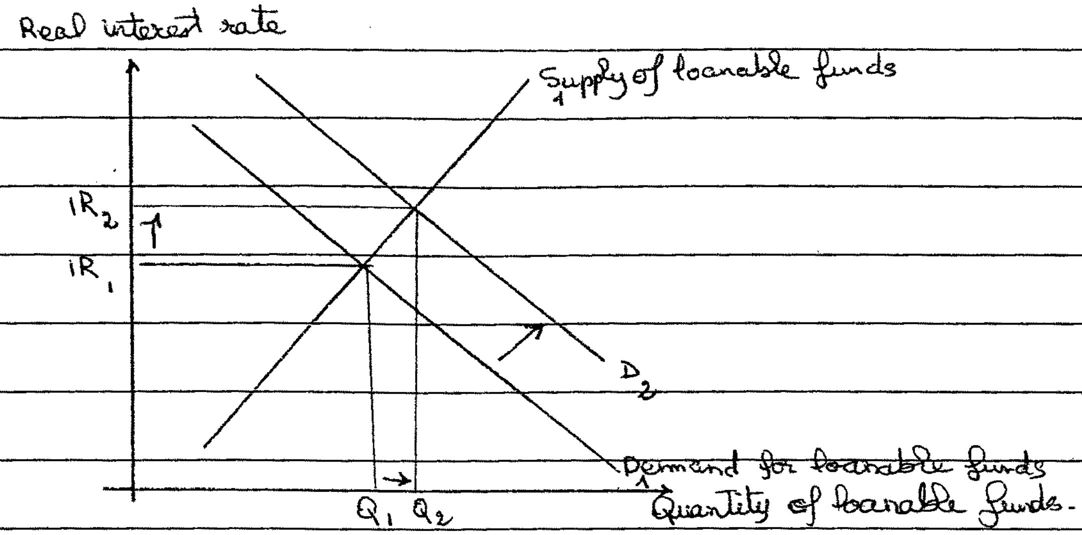
(ii) Since the tax multiplier is weaker than the spending multiplier, the reduction in personal income taxes will have to be larger than the government spending to achieve full employment.

Question 1

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1A2

(d)



Market of loanable funds

An increase in the government spending will lead to a budget defiat and the government will have to loan funds to find an equilibriu in its budget. It is the crowding-out effet

So the real interest rate will ~~go~~ increase from IR_1 to IR_2.

(e) Since the interest rate went up, the investment will go down and the capital stock will not increase so the growth rate of the United States economy will slow down.

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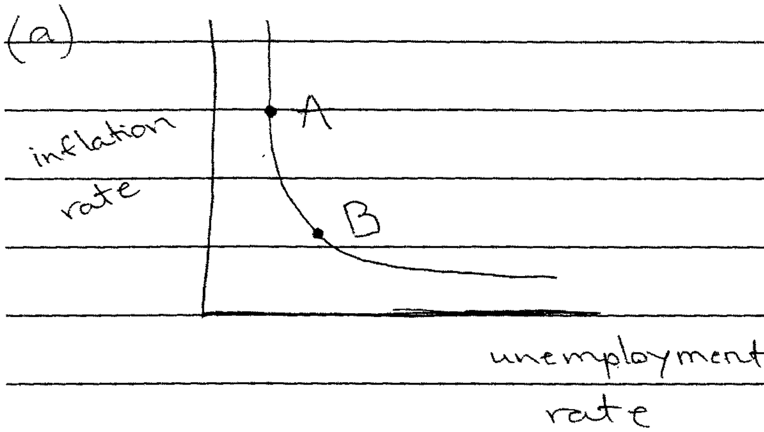
01

1B, 1

(a)



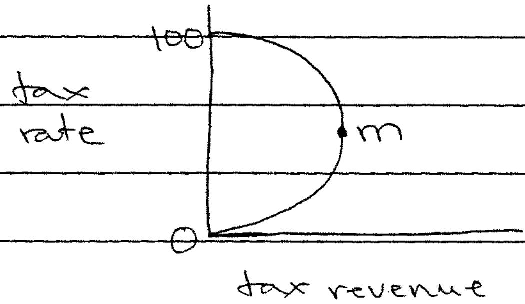
(b) There will be a budget deficit because aggregate demand has moved to the left which decreases GDP.

(c) (i) MPC = .8

MPS = 1 − .8 = .2

$500 $\left(\frac{1}{.2}\right)$ = $2,500 (billion)

(ii) The reduction in personal income taxes required to achieve full employment would be smaller than the government spending change because according to the Laffer curve, the government would bring in more tax revenue if tax rate is decreased.

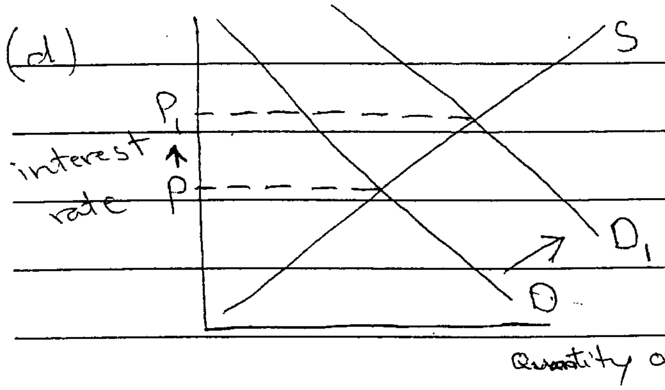


01

Write in the box the number of the question you are answering on this page as it is designated in the exam.

1B2

(d)



(e) As real interest rate increases, money supply decreases. This will bring the U.S economy into a recession, which means the growth rate will decrease.

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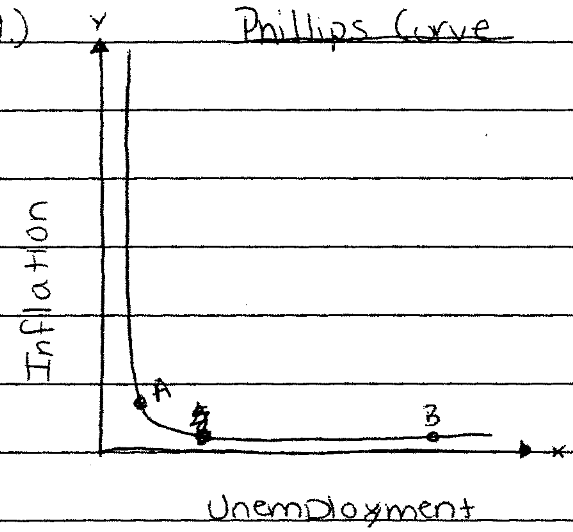
Number 1

1C

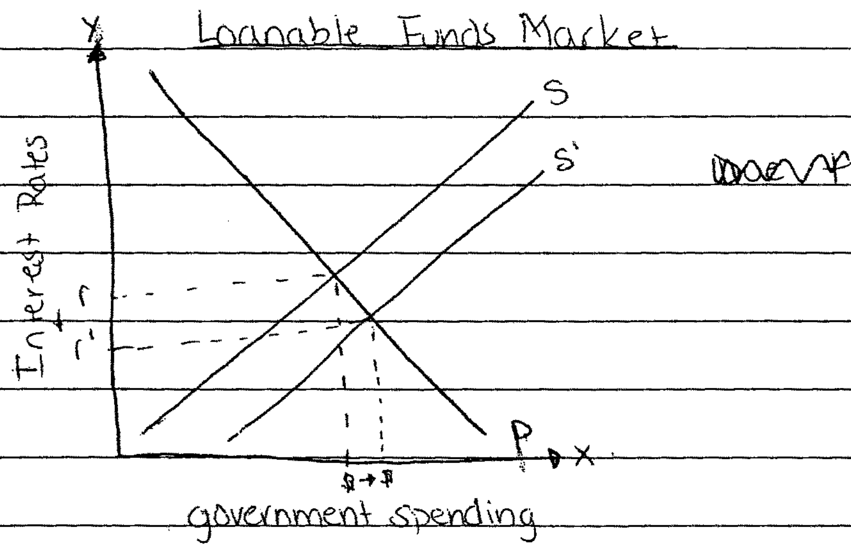
(a.)



(b.) The federal budget will go into a budget defecit, in which they will need to decrease government spending Also they will need to raise taxes.

(c.) (i.) $\begin{array}{r} 500 \\ \times\ .8 \\ \hline 400.0 \end{array}$ \$400 An increase in \$400 of government spending will bring about full-employment.

(d.)



Due to an increase in government spending interest rates will fall.

AP® MACROECONOMICS
2008 SCORING COMMENTARY

Question 1

Overview

This question tested students' understanding of the effects of a recession and expansionary fiscal policy. Part (a) asked students to use a Phillips-curve diagram to show the effects of a recession. Part (b) asked students to explain the effect of the recession on the federal budget. Part (c) asked students to calculate the minimum change in government spending necessary to increase output by a given amount and then compare the size of that change to the alternative policy of a reduction in personal income taxes. Parts (d) and (e) asked students to show the effect of an increase in government spending on the real interest rate and explain the effect of the change in the real interest rate on economic growth.

Sample: 1A
Score: 11

The student earned all points in this question.

Sample: 1B
Score: 6

The student lost 1 point in part (b) for failing to recognize that a decline in real GDP associated with a recession would automatically lead to reduced tax revenue and increased government spending. The student lost 3 points in part (c): 1 point for calculating incorrectly the increase in government spending needed to move the economy to full employment, 1 point for failing to conclude that the tax cut needed to move the economy to full employment would have to be larger than the increase in government spending, and 1 point for failing to explain why the tax cut would have to be larger than the increase in government spending. The student lost 1 point in part (e) for failing to link lower investment to a decline in the capital stock resulting in slower growth.

Sample: 1C
Score: 3

The student received 2 points in part (a): 1 point for drawing a correctly labeled Phillips curve and 1 point for showing that a recession would result in higher unemployment and lower inflation on the short-run Phillips curve. The student received 1 point in part (b) for concluding that a recession will result in the federal budget being in a deficit.