

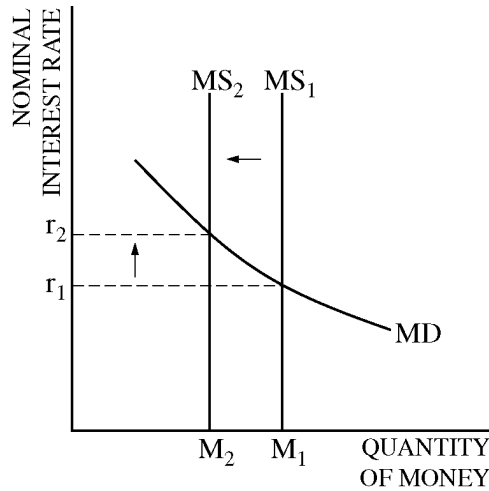
**AP<sup>®</sup> MACROECONOMICS**  
**2009 SCORING GUIDELINES (Form B)**

**Question 2**

**7 points** (2 + 2 + 1 + 2)

(a) 2 points:

- One point is earned for determining the total change in reserves: \$50 million.
- One point is earned for calculating the maximum possible change in the money supply:  $10 \times \$50 = \$500$  million.



(b) 2 points:

- One point is earned for a correctly labeled graph of the money market.
- One point is earned for showing a leftward shift of the money supply curve and an increase in the nominal interest rate.

(c) 1 point:

- One point is earned for concluding that the equilibrium price level will fall.

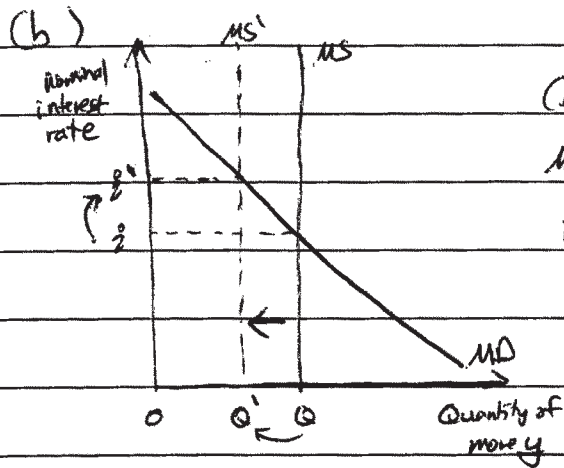
(d) 2 points:

- One point is earned for concluding that people with a fixed income would be better off.
- One point is earned for explaining that the lower price level raises real income or increases the purchasing power of the fixed income.

2 (a)

(i) The total change in reserves in the banking system is \$50 million decrease.

(ii) The maximum possible change in the money supply is \$500 million decrease.



(c) Central bank's bond sale decreases the equilibrium price level in the short run since Aggregate demand decreases when central bank sells bonds

(d) The people with fixed incomes are better off because the price level decreases while their income is constant, which allows them to be able to purchase more goods & services.

2.

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

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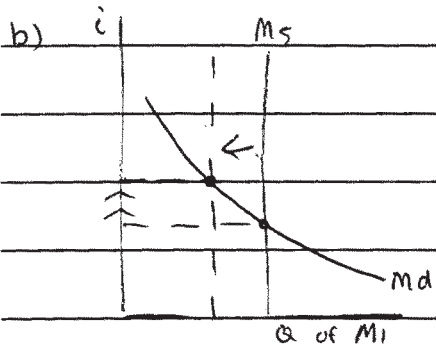
a) i) ~~multiplier = 1~~

$$.10 \times 50 = 5$$

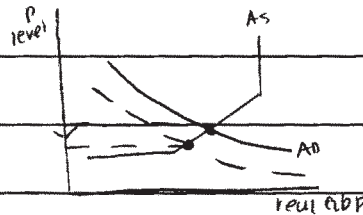
$$50 - 5 = \$45 \text{ million}$$

ii) multiplier =  $\frac{1}{.1} = 10$

$$10 \times 50 = \$500 \text{ million}$$



c) Central bank's bond sale will lower the equilibrium price level in the short run.



$M_s \downarrow \Rightarrow i \uparrow \Rightarrow I_p \downarrow$   
 $\Rightarrow AD \downarrow \Rightarrow P \downarrow, Q \downarrow$

d) People with fixed incomes will not be affected since incomes adjust to changes in the price level.

Question 2

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

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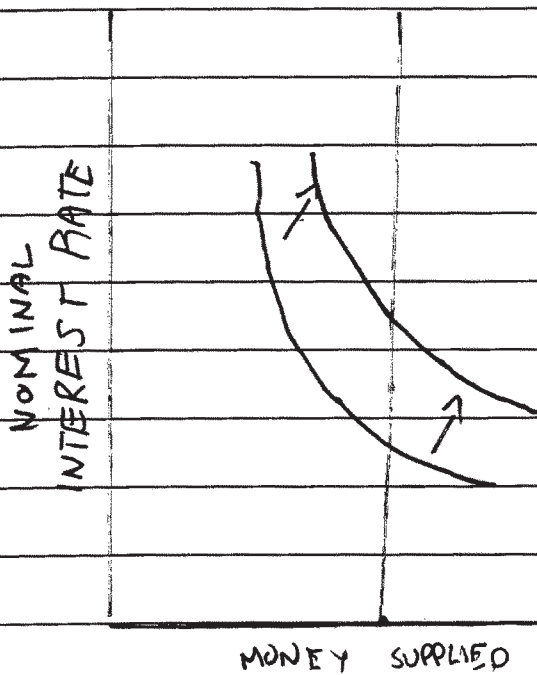
(a)(i)  $\frac{50 \text{ million}}{10} = 5 \text{ million}$

There will be a 5 million dollar change in reserves in the banking system

(ii)  $50 \text{ million} - 5 \text{ million} = 45 \text{ million dollars}$

There will be a ~~total~~ maximum possible change of 45 million dollars to the money supply

(b)



There will be an increase in the interest rate.

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

Question 2

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2 of 2

(c) The equilibrium price level will increase in the short run, because there will be a much larger amount of money in the market. Because of this increased level of money, the price levels will increase by a similar amount.

(d) People with fixed incomes will be worse off from the rise of price levels. Because price levels will rise, people with fixed incomes will not have as much money, because everything is more expensive, but their salaries have not increased to match the rising prices.

**AP<sup>®</sup> MACROECONOMICS**  
**2009 SCORING COMMENTARY (Form B)**

**Question 2**

**Sample: 2A**

**Score: 7**

The student earned all 7 points for this question.

**Sample: 2B**

**Score: 4**

The student lost 1 point in part (a)(i) because the answer given is not \$50 million. The student lost both points in part (d) for concluding that people with fixed incomes would not be affected and for providing an incorrect explanation.

**Sample: 2C**

**Score: 2**

The student lost both points for part (a): in part (a)(i) the response given is \$5 million rather than \$50 million, and in part (a)(ii) the response given is \$45 million rather than \$500 million. In part (b) 1 point was lost because the money market graph is not correctly labeled, and the second point was lost because there is no leftward shift of the money supply curve, though the interest rate is shown as increasing. The student lost 1 point in part (c) because the response is inconsistent with the response given in part (b). Both points in part (d) were earned.