

**AP<sup>®</sup> MACROECONOMICS**  
**2006 SCORING GUIDELINES (Form B)**

**Question 2**

**6 points** (2 + 2 + 2)

(a) 2 points:

- One point is earned for stating that there is no impact.
- One point is earned for explaining that only the composition of the MS changes.

(b) 2 points:

- One point is earned for indicating \$7,200.
- One point is earned for indicating \$36,000.

(c) 2 points:

- One point is earned for stating that money supply increases.
- One point is earned for stating that money demand increases because income increases.

(a) This ~~is~~ transaction does not change the money supply, because the money supply contains both the cash owned by individuals and the cash in the bank account.

(b) i) As the bank will keep 20 percent of its deposit (10 percent reserve requirement plus ~~10~~ 10 percent additional reserves), the bank ~~will~~ <sup>can</sup> increase its loans by \$17,200 ( $\$9,000 \times 0.8$ ) to the maximum.

ii) In this case, the ~~money multiplier~~ monetary multiplier is  $5 (= \frac{1}{0.2})$ . Therefore, the maximum increase in the money supply generated from this transaction is \$36,000 ( $\$17,200 \times 5$ ) if people repeat the transaction of depositing and the banks keep no more than 20 percent of their deposits.

(c) i) The money supply will increase because the government finances the spending by drawing money out of the central bank. The money supply increases by \$9,000.

ii) As government acts on an expansionary fiscal policy, the price level will go up. This increase in the price level will also increase the transaction demand of money by the people. So, the money demand will increase.

2 (a), (b), (c)

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

2B

2. (a) There is no immediate impact because cash and checking accounts are considered part of the M1 money supply and transferring funds from cash to checking accounts will, therefore, make no difference.

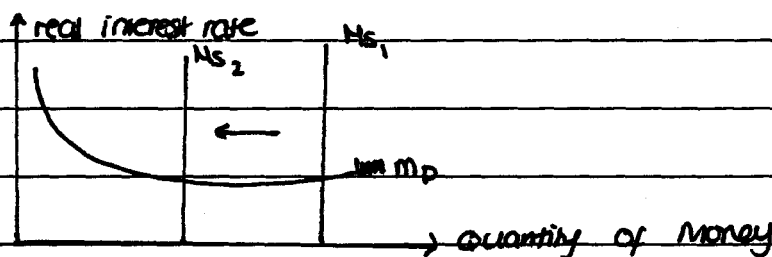
(b) Reserve ratio = 20%.

$$\begin{aligned} \text{(i) Increase in loans} &= \text{Initial deposit} \times \text{reserve ratio} \\ &= 9,000 - 0.2(9,000) = 9,000 - 1,800 \\ &= \$7,200 \end{aligned}$$

$$\begin{aligned} \text{(ii) maximum increase in money supply} &= \text{increase in loans} \times \frac{1}{\text{reserve ratio}} \\ &= 7,200 \times \frac{1}{0.2} = 7,200 \times 5 \end{aligned}$$

$$\therefore \text{maximum increase in } M_s = \$36,000$$

(c) (i) Because the increase in gov't spending has been financed by sale of bonds to the central bank, the money supply has now decreased, i.e. shifting inwards to the left.



(ii) the decrease in money supply will push interest rates up. This will make saving ~~attractive~~ <sup>or</sup> buying bonds/stocks more attractive, therefore people will no longer want to hold money as cash in hand, leading to a decrease in money demand.

2

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

2C

(a) The money supply immediately decreases by \$9,000 since it is being taken out of the market and saved into a bank.

(b) (i) ~~\$7,200~~ \$7,200  
(ii) \$45,000

(c) The money supply will increase  
(i) The money demand will remain constant. There is nothing here that indicates the demand for money will change.

**AP<sup>®</sup> MACROECONOMICS**  
**2006 SCORING COMMENTARY (Form B)**

**Question 2**

**Sample: 2A**

**Score: 6**

The student received full credit.

**Sample: 2B**

**Score: 4**

This student answered parts (a) and (b) correctly, earning 4 points. Part (c) was incorrect because it states that the money supply decreases and fails to indicate that the increase in government spending will lead to an increase in the demand for money.

**Sample: 2C**

**Score: 2**

This student received 1 point in part (b)(i) for indicating that the maximum amount by which this bank will increase loans is \$7,200, and 1 point in part (c)(i) for stating that the money supply will increase. The remainder of the points were missed.