

FUN Set 4.4

Name: _____

2009B Practice FRQ

In Country Z, the required reserve ratio is 10 percent. Assume that the central bank sells \$50 million in government securities on the open market.

- (a) Calculate each of the following.
 - (i) The total change in reserves in the banking system
 - (ii) The maximum possible change in the money supply
- (b) Using a correctly labeled graph of the money market, show the impact of the central bank's bond sale on the nominal interest rate.
- (c) What is the impact of the central bank's bond sale on the equilibrium price level in the short run?
- (d) As a result of the price level change in part (c), are people with fixed incomes better off, worse off, or unaffected? Explain.

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3. Assume that the reserve requirement is 20 percent and banks hold no excess reserves.
 - (a) Assume that Kim deposits \$100 of cash from her pocket into her checking account. Calculate each of the following.
 - (i) The maximum dollar amount the commercial bank can initially lend
 - (ii) The maximum total change in demand deposits in the banking system
 - (iii) The maximum change in the money supply
 - (b) Assume that the Federal Reserve buys \$5 million in government bonds on the open market. As a result of the open market purchase, calculate the maximum increase in the money supply in the banking system.
 - (c) Given the increase in the money supply in part (b), what happens to real wages in the short run? Explain.

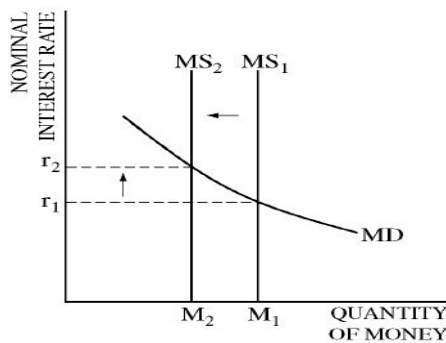
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2. Assume that an economy is in long-run equilibrium. Assume that consumers wish to hold less money because they use credit cards more frequently to purchase goods and services than cash.
 - (a) Draw a correctly labeled graph of the money market and show the effect of the reduced holdings of money on the equilibrium nominal interest rate in the short run.
 - (b) Based on the change in the interest rate in part (a), what will happen to each of the following in the short run?
 - (i) Prices of previously issued bonds
 - (ii) The price level and real income. Explain.
 - (c) With a constant money supply, based on your answer to part b(ii), will the velocity of money increase, decrease, or remain the same, or is the change indeterminate?
 - (d) If the central bank wishes to reverse the change in the interest rate identified in part (a), what open market operation would it use?

2009B Practice FRQ RUBRIC

(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.

2009 #3 FRQ RUBRIC

6 points (3 + 1 + 2)

(a) 3 points:

- One point is earned for stating that the maximum dollar amount the bank can initially lend is \$80.
- One point is earned for stating that the maximum change in demand deposits is \$500.
- One point is earned for stating that the maximum change in the money supply is \$400.

(b) 1 point:

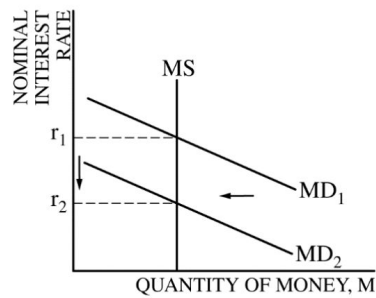
- One point is earned for stating that the Federal Reserve's action will increase the money supply by at most \$25 million.

(c) 2 points:

- One point is earned for stating that the real wages will fall.
- One point is earned for explaining that real wages fall because the Federal Reserve's action causes inflation.

2017 #2 FRQ RUBRIC

6 points (2 + 2 + 1 + 1)



(a) 2 points:

- One point is earned for drawing a correctly labeled graph of the money market.
- One point is earned for showing a leftward shift in the money demand curve, resulting in a lower nominal interest rate.

(b) 2 points:

- One point is earned for stating that the price of previously issued bonds will increase.
- One point is earned for stating that both the price level and real income will increase and for explaining that the lower interest rate will increase consumption, investment, and/or net exports (interest-sensitive spending), which increases aggregate demand.

(c) 1 point:

- One point is earned for stating that the velocity of money will increase.

(d) 1 point:

- One point is earned for stating that the central bank would sell bonds.