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Exercise 5

Money Market

1. What are the three functions of money? Evaluate whether "gold" can effectively serve these three functions.

- medium of exchange
- store of value
- unit of account

yes, gold can be use to served all three functions, anything can be use as long as everyone belief in their value. people happy to accept it.

2. Suppose that people hold 1000$ as cash, 1000$ as demand deposits, and 1000$ as savings; calculate narrow money and broad money. How much is the "money supply" in the economy?

M1 = currency in circulation + demand deposits
= 1000 + 1000 = 2000 $

M2 (broad money) = M1 + savings
= 2000 + 1000
= 3000 $

3. What is Fractional Reserve System (FRS)? Explain how money can be created through this system.

Mr. A put money in the Bank, Bank lend part of the money to Mr. B Bank charge Mr. B interest. This expand money supply in the economy

4. Suppose that the reserve ratio is 20% and that Mr.Bean has <u>100$ CASH and 200$ DEPOSIT</u>. Assume that people deposits all their money, and that the banks lend all their deposits; answer the following questions.

a) What does the reserve ratio of 20% means?

200$ of Mr.Bean deposit, 20% or 40$ will be reserved

b) WITHOUT the fractional reserve system (FRS), how much is the money supply?

100 + 200 = 300 $

c) Calculate the money multiplier. $= \frac{1}{RR} = \frac{1}{0.2} = 5$

d) WITH the FRS, how much is the TOTAL DEPOSIT within the economy?

200 x 5 = 1000 ฿ = deposit x multiplier

d) How much deposit is created from the FRS?

1000 − 200 = 800 $

f) WITH the FRS, how much is the money supply?

1000 $ + 100 $ = 1100 $

Total deposit + CASH

5. Explain three roles of central banks.

* control the money supply (control interest rate)
* managing exchange rate
* assisting banks that are in difficult financial position. (lender of last resort)

6. What is Liquidity? What is the most liquid asset? Explain the three reasons (according to Keynes) why people prefer to have liquidity. Which of these three reasons causes the money demand curve to be downward-sloping?

how easily assets can convert into mean of exchange.

cash, money

1. Transaction demand (Daily use) 2. Precautionary demand (unexpected use)
3. Speculative demand (future investment)

7. How does each of the followings affect the money demand curve? (That is, will it shift the curve, or is it movement along the curve?) Also, explain your reasoning.

a) People become poorer.

b) Goods become more expensive.

c) People prefer to hold less cash due to debit/credit cards

d) The central bank decreases interest rate.

8. Why is the money supply curve a vertical line? How does each of the followings affect the money supply curve? Also, explain your reasoning.

a) People deposit more money.

b) The central bank increases reserve ratio.

c) The central bank decreases discount rate.

d) The central bank decreases interest rate.

9. Suppose that the central bank wants to lower interest rate to boost the economy. Explain, together with the money market diagram, how the central bank can achieve this through an open market operation.

10. Suppose that the money market is NOT in equilibrium because the current interest rate is higher than the equilibrium rate, $i > i^*$. Explain how the money market adjusts to reach the equilibrium.

11. Write down the equation for the Quantity Theory of Money. Explain how this equation can be used to explain inflation.

12. Let the money demand function be $M_D = 200 - (1000)i$ and the money supply function be $M_S = 100$.

a) Calculate the equilibrium interest rate, i^*. (Hint: set $M_D = M_S$ and solve for i^*)

b) Suppose that new money demand function becomes $M_D = 400 - (1000)i$. What can be inferred about the transaction and precautionary demand?