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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.

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? cash = 1000$ deposit = 1000 $ savings : 1000$
Narrow : M_1 = currency cirlculation + deposit : 2000
broad = M_1 + saving : 3000 money supply : M_1 = 2000

3. What is Fractional Reserve System (FRS)? Explain how money can be created through this system.
- central Bank impose reserve require bank to commetial bank
- when people deposit their money, the bank will reserve their money and lend their deposit money. This will create 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?
b) WITHOUT the fractional reserve system (FRS), how much is the money supply?
c) Calculate the money multiplier. $\frac{1}{RR}$
d) WITH the FRS, how much is the TOTAL DEPOSIT within the economy?
e) How much deposit is <u>created from the FRS</u>?
f) WITH the FRS, how much is the money supply?

5. Explain three roles of central banks.

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?

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?) <u>Also, explain your reasoning.</u>
change in i → movement
y → shift
a) People become poorer. Y↓ → Md↓
[redacted]
c) People prefer to hold less cash due to debit/credit cards not effect demand curve
d) The central bank decreases interest rate. i↓ → Md↑

1 - Medium of exchange → Mean of payment that general people accept for transaction of goods and service.
- Store of value → transport purchasing from one time period to another
- Unit of account → standard unit that allow people to compare value of things.

4. a) 20% of all deposit that bank must keep as reserve.
b) cash + deposit = 300
c) 1/0.2 = 5 → money multiplier
d) FRS = deposit × money multiplier = 200 × 5 = 1000
e) Total deposit - deposit = 1000 - 200 = 800
f) 1000 + 100 = 1100

5 · Control the money supply i.e. Monetary policy
- Do important function for bank
- Also facilitates the transfer of funds among banks
- lender of last resort (provide fund to bank when bank have trable)

6 Liquidity refer how easily money can be convert to mean of exchange. Money is the most liquid asset.
- Transaction demand → daily use
- Pre-cautionary demand → For unexpected use
- Speculative demand → for future investment
↳ ทำให้เกิด downward - sloping

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. due to FRS, we will have more M_s → M_s shift to the right.

b) The central bank increases reserve ratio. M_s shift to the left. b/c banks can lend less money.

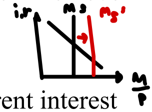
c) The central bank decreases discount rate. M_s shift to the left.

d) The central bank decreases interest rate. M_s is not affect by interest rate.

M_s↑ i_r↓

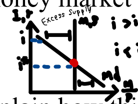
→ Expansionary Monetary policy

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.



- central bank by securities inorder to increase money supply.

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.



i > i* excess supply

i < i* excess demand

- convert cash into bond. Demand for bond will be high. Bond issuers will respond by lower the interest rate

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

$MV = PY$ V, Y = constant at full employment when M increase P also increase

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?

a) $M_d = M_s$ $200 - 1000i = 100$

$i = 0.1$

b) There are increasing in both demand so both of their graphs will shift to the right.