RATU NAVULA COLLEGE YEAR 12 ECONOMICS 2021

WEEKLY HOME STUDY LESSON NOTES – Week 8 (# 65 – 69)

Strand: **(3)** Macroeconomics   **Lesson 65**
Sub Strand: (3.3) Money and Banking
L/Outcome: - Identify the factors affecting money demand.


Factors Affecting Money Demand

There are two factors affecting the money demand:

1. **The General price Level**
    ✓ If the general price level rises, pushing up the price, people would demand more money than before to buy things. Therefore MD (money demand) shifts right.
    ✓ And general price level is falling; people will demand less money than before, therefore MD shifts left.

2. **Real Income**
    ✓ That is, if real income increases, people will demand more money to use therefore MD will shift to the right
    ✓ If real income decreases, people would demand less money to spend. Money demand shift to the left.

Shifts of the Money Demand Curve
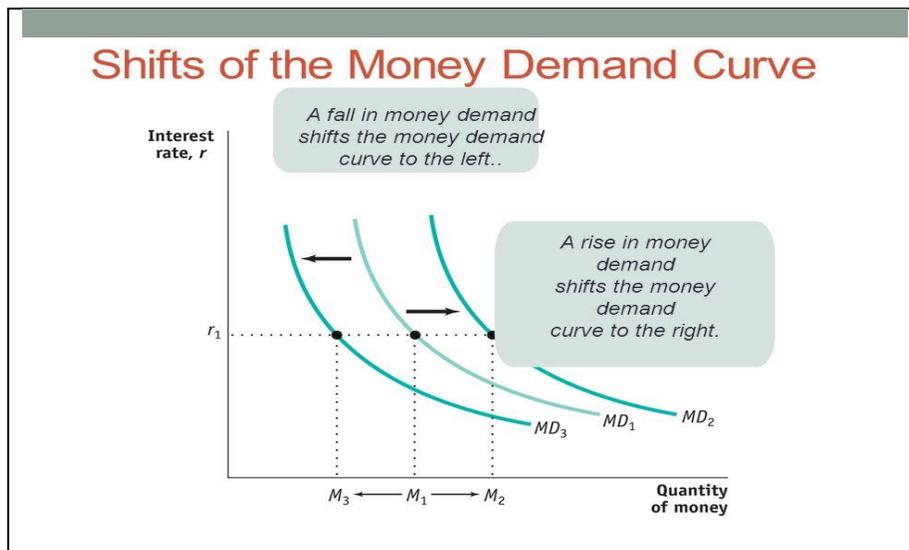
Class Activity

1.   There is an **asset demand** for money because money is a

   A. store of value.   C. unit of account.

   B. medium of exchange.   D. standard of deferred payment.

2.   The **precautionary motive** for money refers to the

       A.   holding money to buy shares.   C.   selling of goods and services.
       B.   buying of goods and services.   D.   holding money for emergency.

**Strand**: **(3)** Macroeconomics   **Lesson 66**
Sub Strand: (3.3) Money and Banking
L/Outcome: - Define money supply and identify the factors affecting money demand.

MONEY SUPPLY

- Money Supply is vertical.
- It remains constant irrespective of the changes in the level of interest rate.
- The money supply is set and maintained by Reserve Bank at a certain rate in a given period of time.

The Money Market Graph
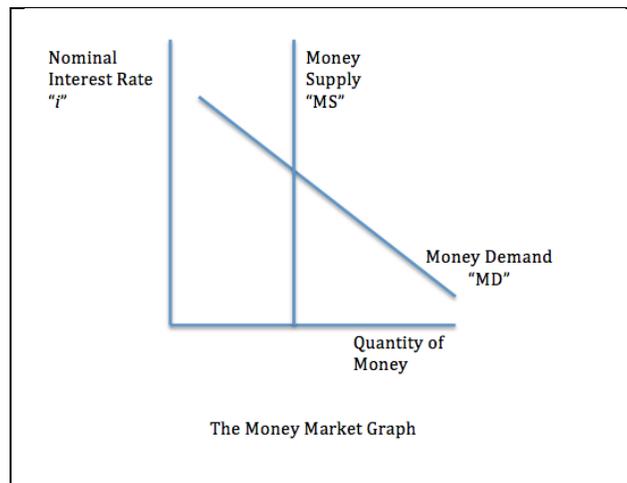
Factors Affecting Money Supply

- **Open Market Operation (OMO)**
  - ✓ When Reserve bank purchases govt. bonds from banks or the public it to leads increase monetary base thus increases money supply.
  - ✓ When reserve bank sells bonds to bank or public, this decreases the monetary base therefore decreases excess reserve base of banking system therefore decreases money supply

- **Required Reserve (RR)**
  - ✓ Increase in reserve ratio leads to decrease in the loanable fund which leads to decrease in MS while decrease in Required Reserve (RR) leads to increase in advances (loanable funds) which leads to increase in MS.

- **Interest rate**
  - ✓ Increase in interest rate leads to decrease in investment, resulting in a decrease in aggregate demand (AD) thus decrease in MS and vice versa.

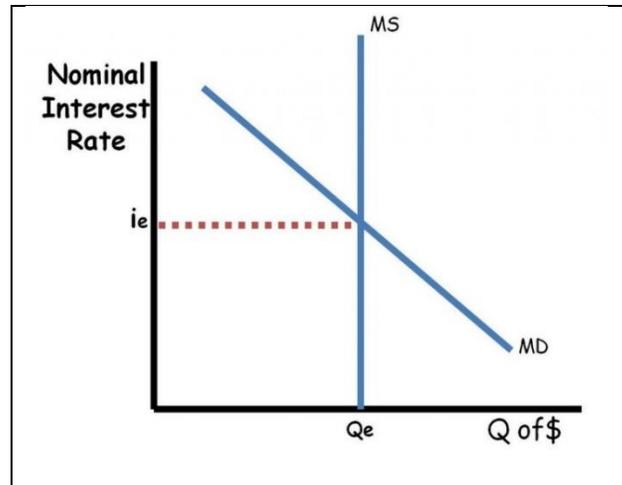**Strand**: **(3)** Macroeconomics   **Lesson 67**
Sub Strand: (3.3) Money and Banking
L/Outcome: - identify the money market equilibrium

Money Market Equilibrium

- It is achieved where MD=MS.
- Interest rate for the economy is determined by money market equilibrium.
- The overall demand for money demand set by consumers and business while the MS is set and controlled by the Reserve Bank.

Class Activity

Ref: 2019

Read the information below and with your own knowledge answer questions (i) and (ii).

> **Fijiana Economy**
> Base rate of interest = 5%
> Money Supply = $80billion

(i)   Illustrate the money market equilibrium of the Fijiana Economy in a simple
        demand and supply graph.
        (Label the demand curve as MD and supply curve as MS).   **(2 marks)**

(ii)   State the reason for the slope of the **demand** and **supply** curve of money.   **(2 marks)**

Strand: **(3)** Macroeconomics   **Lesson 68**
Sub Strand: (3.3) Money and Banking
L/Outcome: Define quantity theory of money.

QUANTITY THEORY OF MONEY

- The quantity theory of money is an identity that shows the relationship between nominal GDP, the stock of money and velocity of circulation.
- It is also known as the equation of exchange or Fisher Equation

> The quantity theory of money:
> $$MV = PQ$$

- ✓ M = MS
- ✓ V = Velocity of Circulation (the rate at which the money changes hands at a given period of time).
- ✓ P = Price level
- ✓ Q = Physical Value of goods and services (output therefore PQ = nominal GDP)

Some of the assumptions of these equations are:

- Effects of change in 'P' if 'V' and 'Q' are constant
- If P increase when MV = QP (PQ) then M will also increase to balance equation
- Therefore MV = PQ

Calculation of velocity

- Velocity shows the number of times average dollar spent on goods and services changes hand.
- The faster the dollar the changes the hand the higher the velocity.
  - ✓ Eg If a $2 note is used only 10 times in a year then it has a velocity of 10.
- Velocity is the ratio of nominal GDP to the number of dollars in the money supply.

> **Example**
> If there was $4500 worth of transaction (output) in a year and MS was $900.
> Calculate velocity.
>
> **Solution**
> $$MV = PQ$$
> $$V = PQ/M$$
> $$V = 4500/900$$
> $$V = 5 \text{ times}$$

Strand: **(3)** Macroeconomics   **Lesson 69**
Sub Strand: (3.3) Money and Banking
L/Outcome: Define quantity theory of money.

Changes in velocity

- Velocity changes due to a change in economic situation i.e., during the times of:
1. **Boom** – there is a high level of economic activity ⟶ ↑ in income therefore ↑MS ⟶ ↑ in the rate at which the money changes hand

2. **Recession** – low level of economic activity ⟶ ↑ in income therefore ↓MS ⟶ ↑ in the rate at which money changes hands.

Class Activity

Ref: 2020

Read the information below on the equation of exchange in a country and with your own knowledge answer questions (i) – (iv).

- M = $500 billion
- V = 4,
- Q = $650 billion   •   P = ?

(i)   Define **Fisher Equation**.   **(1 mark)**

(ii)   Determine the Nominal GDP from the data given above.   **(1 mark)**

(iii)   Explain why we need to know the fisher equation.   **(1 mark)**

(iv)   Calculate P.   **(1 mark)**

Worksheet

Ref: 2020

Study the graph of money supply and money demand given below and answer questions (i) – (iii).
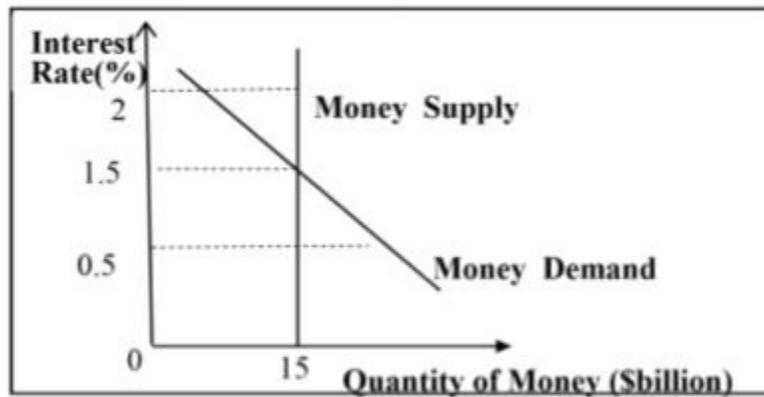
(i)   Define money demand.   **(1 mark)**

(ii)   State one factor which affects money demand.   **(1 mark)**

(iii)   Identify the equilibrium interest rate.   **(1 mark)**

Ref: 2019

Read the resource given below and with your own knowledge answer questions (i) to (iii).

> Assume that in 2019, the Lilyland Economy has a money supply of $4 billion, Velocity = 2, Volume of transactions = $2 billion. Furthermore, their Central Bank has announced a doubled supply of money in the economy from the year 2020.

(i)   Define the **quantity theory of money**.   **(1 mark)**

(ii)   Calculate

        I.   **price level** .   **(1 mark)**

        II.   the Lilyland's **nominal GDP** in the year 2019.   **(1 mark)**

(iii)   Use the quantity theory of money to show the effect of the **doubling of the money supply** on price.   **(2 marks)**