Suva Sangam College

Year 12 Subject Economics

Week One Date 5th to 9th July 2021

Strand: **Macroeconomics**

Sub Strand: Money and Banking

Achievement indicator

Calculate the different monetary aggregates or money measurement (component of money).

Money Supply

Money supply is the total amount of money in circulation or in existence in a country.
M0 is the sum of total currency in circulation.

Money supply is measured using different mediums.

1. M1

- is coins and notes, travellers cheques + transaction accounts operable by cheques.
- Narrow money, include most immediate forms of money available to the general public.

2. M2

- is M1 + other savings account.
- This includes EFTPOS, investments accounts and bonds.
- M2 is called Near Money.
- Near Money – assets that can be converted into cash easily.

3. M3

- is M2 + term deposit held at banks or other financial institutions.
- This is called broad money which consists of large denominators, certificates of deposits.

Activity 1

1. Read the resource below and answer questions (i) and (ii).

The central bank measures the money supply using three monetary aggregates: M1, M2, and M3.

(i) Define M1 as a measure of money supply.

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(ii) Identify the broadest form of money supply above.

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2. Use the table given below on monetary aggregates and your own knowledge to answer the question that follows.

Money aggregate	$m
Term deposits	86 545
Notes and coins held by the public	10 524
Accounts operable by EFTPOS	22 467

Travellers cheques	12 957
Transaction accounts operable by cheques	25 870
Investment accounts	35 240

Calculate the value of M3

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Suva Sangam College

Year 12 Subject Economics

Week Two Date 12th to 16th July 2021

Strand: **Macroeconomics**

Sub Strand: Money and Banking

Achievement indicator

Describe factors affecting money demand and money supply.

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.

Factors affecting money supply

The factors affecting money supply are:

1. Open market operations (OMO)

- Is buying and selling government bonds and securities.
- OMP (open market purchase) is buying the bonds and securities from the public. This will increase the MS (money supply).
- OMS (open market sales) is selling the bonds and securities to the public. This will decrease the MS (money supply).

2. Reserve Ratio (RR)

- Keeping a percentage of deposit and lending out the rest (credit creation).
- Also known as Reserve Asset Ratio (RAR), Cash Prudential Ratio, and Cash Reserve Ratio.
- 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.

3. Interest rate

- Influencing the level of money supply by aligning the interest rates set by Commercial Banks to the Reserve Bank's standard.
- increases in interest rate leads to decrease in investment, resulting in a decrease in AD thus decrease in MS and vice versa

Activity 1

1. State one factor affecting Money Supply.

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2. Which institution in Fiji controls the money supply?

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3. Explain how the money supply could be expanded in an economy in which all money is in the form of currency.

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Suva Sangam College

Year 12 Subject Economics

Week Three Date 19th to 23rd July 2021

Strand: **Macroeconomics**

Sub Strand: Money and Banking

Achievement indicator

Describe factors affecting money demand and money supply.

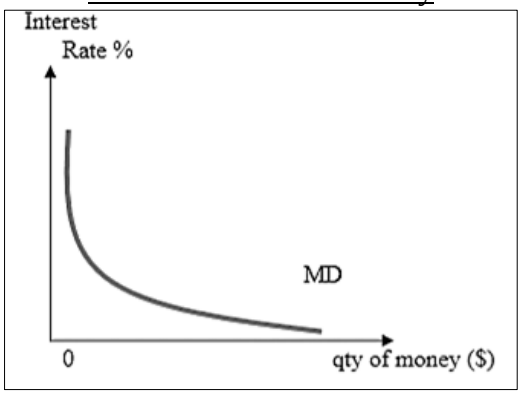
i) Money Demand

Money demand is the desired holding of financial assets in the form of money that is cash or bank deposits rather than investment.

Money demand exists for three motives:

1. Transaction Demand is a desire to hold money to buy things with i.e. for means of exchange.
2. Precautionary Demand is the demand that arises due to people holding money for emergency purpose or for unforeseen circumstances.
3. Assets (Speculatory Demand) is when people may hold money to buy shares now and sell later at a higher price so that they can get capital gain if they find the share price is increasing.

Overall demand for money



- The demand curve for money is downward sloping because when interest rate increases, the demand for money falls.
- The higher the interest rate, the higher the opportunity cost for holding money for asset motive (better thing is to save or put money in the bank to earn interest rates or by lending).
- At lower interest rate, the opportunity cost is lower for holding money for asset motive (people could gain by buying property and through borrowing).

Factors Affecting Money Demand

There are two factors affecting the money demand:

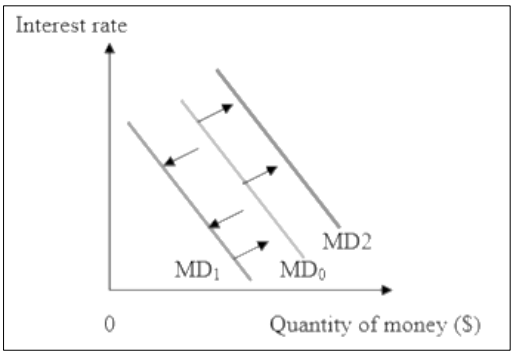
1. The General price Level

- If the general price level rises, it will push up the price, therefore, people would demand more money than before to buy things.

- Therefore MD (money demand) shifts right.
- If general price level falls, it will cause the prices to go down, therefore, people will demand less money than before.
- Therefore MD shifts left

2. Real Income

- If real income increases, people would demand more money to use, therefore, MD will shift to the right.
- If real income decreases, people would demand less money to spend. Therefore MD will shift to the left.



Activity 1

a) Multiple choice (Circle the best option)

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

A. Store of value.
B. Medium of exchange.
C. Unit of account.
D. Standard of deferred payment.

2. During periods of rising general price level and rising interest rates, the demand for real cash is expected to

A. Fall.
B. Rise.
C. Fluctuate.
D. Be constant.

3. Keeping money aside in case of a bargain, is an example of _____ demand for money.

A. Asset
B. Transaction
C. Speculatory
D. Precautionary

b) Short answer

State one factor affecting Money Demand.

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Suva Sangam College

Year 12 Subject Economics

Week Four Date 26th to 30th July 2021

Strand: **Macroeconomics**

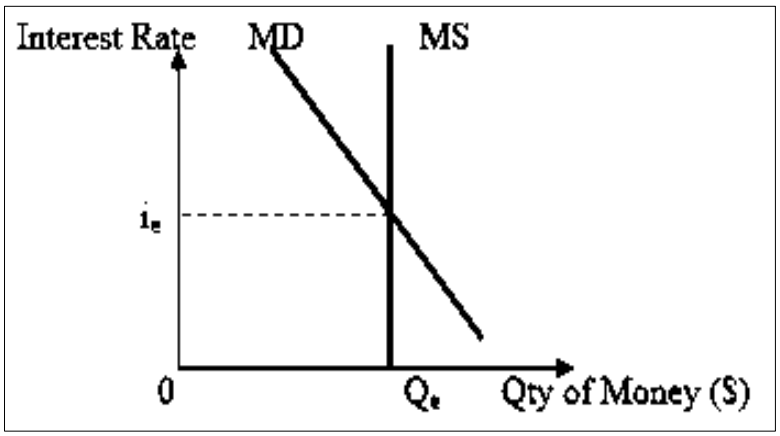
Sub Strand: Money and Banking

Achievement indicator

Illustrate how interest rate is determined in the economy.

Money Market Equilibrium

- The basic interest rate for the economy is determined by money market equilibrium.
- Money market equilibrium is achieved where MD (money demand) intersects with MS (money supply).
- The overall demand for money demand is set by consumers and business while the money supply is set and controlled by the Reserve Bank.



- The graph above depicts a money market.
- The money supply is the vertical line while the money demand is the downward sloping line.
- Ie represents the interest rate that is being determined where the MD and MS intersect.

Activity 1

Use the table given below which shows the demand and interest schedule for a money market in an economy and with your own knowledge answer the questions (i) and (ii).

Interest Rates (%)	Demand of Money ($billion)
12	50
10	75
8	100
6	125
4	150
2	175
0	200

(i) Assume the money supply is $100 billion, draw a corresponding money supply and money demand curve for the economy.

(ii) Identify the equilibrium interest rate and equilibrium quantity of money.

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Suva Sangam College

Year 12 Subject Economics

Week Five Date 2nd to 6th August 2021

Strand: **Macroeconomics**

Sub Strand: Money and Banking

Achievement indicator

Discuss the 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.
- ✓ According to monetary economics, quantity theory of money states that the general price level of goods and services is directly proportional to the amount of money in circulation, or money supply.
- ✓ It is also known as the equation of exchange or Fisher Equation.

Formula for Quantity theory of money

$$MV = PQ$$

M = money supply

V = velocity of circulation (the rate at which money changes hands at a given period of time).

P = price level

Q = physical value of goods and services (output therefore, PQ= nominal GDP).

Assumptions of equation

Effects of change in P, if V and Q are constant. If P increases, when MV = PQ, then, M will also increase to balance the equation.

Calculation of velocity

Velocity shows the number of times average dollar spent on goods and services changes hand.

The faster the dollar changes hand, the higher the velocity.

Velocity is the ration 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 times

Changes in velocity

Velocity changes due to a change in economic situation that is during the time of:

1. Boom there is high level of economic activity, therefore, increase in income. This will cause increase in money supply, thus, decrease in the rate at which the money changes hand.

2. Recession is low level of economic activity, therefore, decline in the income. This will cause decrease in money supply, thus, increase in the rate at which the money changes hand.

Activity 1

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.

(ii) Calculate

I. Price level.

II. The lilyland's nominal GDP in the year 2019.

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