

**INTRODUCTION TO MACROECONOMICS II (ECO 222)**  
LECTURE NOTE

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Introduction

Consumption and savings are two of the key macroeconomic aggregates in an economy. The third is investment. The importance of these variables derives from the fact they are crucial in determining an economy's equilibrium, level of employment and therefore, income (National income). Moreover, a change in any of them will have a multiplied effect on the level of national income. This effect usually occurred through the workings of the multiplier.

TOPIC 1: CONSUMPTION AND SAVINGS FUNCTION

Meaning

Consumption and savings are two of the key macroeconomic aggregates in an economy. The third is investment. The importance of these variables derives from the fact they are crucial in determining an economy's equilibrium, level of employment and therefore, income (National income). Moreover, a change in any of them will have a multiplied effect on the level of national income. This effect usually occurred through the workings of the multiplier.

CONSUMPTIONFUNCTION

Meaning: This is any spending on consumer goods. That is, those goods that provides immediate satisfaction. The level of private consumption expenditure would be strongly influenced by the level of available disposable income such that variations in the disposable income are likely to be correspondingly reflected in the former.

$$C = f(y)$$

C= Consumption

Y= Disposable income

F= Functional relationship.

Thus, the consumption function indicates a functional relationship between C and Y, where C is the dependent variable and Y is the independent variable. i.e. C is determined by Y. The relationship is based on the ceteris paribus (other thing being equal) assumption, as such only income-consumption are held constant.

PROPERTIES OR TECHNICAL ATTRIBUTES OF THE CONSUMPTION FUNCTION

The consumption function has two technical attributes or properties:

1. **The average propensity to consume:** The average propensity to consume may be defined as the ratio of consumption expenditure to any particular level of income. It is found by dividing consumption expenditure by income.  $APC = C/Y$ . It is expressed as the percentage or proportion of income consumed.
2. **The marginal propensity to consume:** The marginal propensity to consume may be defined as the ratio of the change in consumption to the change in income or as the rate of change in the average propensity to consume as income change. It can be found by dividing change in consumption by a change in income, or  $MPC = \frac{\Delta C}{\Delta Y}$ . MPC is constant at all levels of income.

#### ITS ASSUMPTIONS

Keynes's law is based on the following assumptions:

1. It assumes a constant psychological and institutional complex.
2. It assumes the existence of normal condition.
3. it assumes the existence of a laissez-faire capitalist economy.

#### THEORY OF THE CONSUMPTION FUNCTION (**Assignment**)

1. Keynes' consumption function: The Absolute income hypothesis.
2. The relative income hypothesis.
3. The permanent income hypothesis.
4. The life cycle hypothesis.

#### TOPIC 2. THE SAVINGS FUNCTION

Meaning of saving function: Saving is defined as the difference between disposable income and consumption:  $s=y-c$

Where  $s$ =saving

$y$ = Income

$c$ = consumption.

Thus, the level of saving depends on the level of income.

#### THE CONSUMPTION AND SAVINGS FUNCTION

- (a) **Consumption schedule:** The consumption schedule is the table showing the various amounts household will desire to consume at various possible disposable income levels.

**Table: Consumption Schedule.**

<b>Income (Y) #</b>	<b>Consumption (C) = f(y)</b>
0	20
60	70
120	120
180	170
240	220
300	270
360	320

From the table above, income is shown to increase by #60 and consumption by #50. This implies a stable consumption function during the short-run as assumed by Keynes.

**NOTE:** The table above we graphically demonstrated at lecture room.

- (b) Savings function: Saving is defined as the difference between disposable income and consumption:  $S = Y - C$

Where S = saving

Y = income

C = consumption

Thus, the level of saving depends on equal to the level of income.

- (c) **Average propensity to save (APS):** It is the fraction of any given level of income which is saved. It is expressed as the ratio of total savings to total income (disposable or national income).

$$APS = S/Y$$

The APS is equal to the slope of the ray drawn from the origin to a chosen point on the graph of a linear savings function assuming that the saving function originates from the origin. This assumption however precludes the possibility of dissavings.

- (d) **Marginal propensity to save (MPS):** Marginal propensity to save is the ratio of change in saving to change in income.

$$MPS = \frac{\Delta S}{\Delta Y}$$

Thus, MPS is the slope of the savings function which lies between zero (0) and one (1). Thus,

$$MPC + MPS = 1$$

$$MPS = 1 - MPC$$

$$MPC = 1 - MPS.$$

## OBJECTIVE DETERMINANTS OF SAVINGS

The quantifiable and verifiable factors affecting savings are:

1. Income level.
2. Inflation rate.
3. Stock of liquid assets.
4. Level of interest rate.
5. Availability of savings facilities.
6. Expectations about prices, income and interest rate.
7. Fiscal policy.
8. Desire for bequeath.
9. Cultural background.
10. Instinct for precaution.

### TOPIC3. INVESTMENT

1. **Concepts of investment:** Investment could be defined as net capital formation; hence it refers to such capital expenditure on consumer durables, residential construction (buildings) and plants and machinery. Thus, investment could be referred to as the purchase of real tangible assets such as machines; factors or stocks of inventories which are used in the production of goods and services for future use.

Also, investment can be viewed as the sacrifices of present values of consumption for future value/consumption. It is that part of income that is not consumed immediately but saved and used to create more capital. Hence it is the second component of the Keynesian model of income.

$$Y = C + I$$

#### 2. Types on investment

- (a) Fixed investment
- (b) Inventory investment
- (c) Replacement investment

Investment could also be classified as:

- (a) Autonomous investment
- (b) Induced investment

## TOPIC 4. MONEY SUPPLY

- 1. Meaning of money supply:** The supply of money is a stock at a particular point of time, though it conveys the idea of a flow over time. The term “the supply of money” is synonymous with such terms as “money stock”, ‘stock of money’, money supply and ‘quantity of money’. “The supply of money at any moment is the total amount of money in the economy”. The most common view is associated with the traditional and Keynesian thinking which stresses the medium of exchange function of money. According to this view, “Money supply is defined as currency with the public and demand deposits with commercial banks”. Demand deposits are savings and current accounts of depositors in a commercial bank. They are the liquid form of money because depositors can draw cheques for any amount lying in their accounts and the bank has to make immediate payment on demand. Demand deposits with commercial banks plus currency with the public are together denoted as  $M_1$  the money supply. This is regarded as a narrow definition of the money supply.

The second definition is broader and is associated with the modern quality theories headed by Friedman. According to Friedman, “defines the money supply at any moment of time as “Literally the number of dollars people are carrying around in their pockets, plus the number of dollars they have to their credit at banks or dollar they have to their credit at banks in the form of demand deposits, and also commercial bank time deposits. Time earn a fixed rate of interest varying with the time period for which the amount is deposited. Money can be withdrawn before the expiry of that period by paying a penal rate of interest to the bank. So time deposits possesses liquidity and are included in the money supply by Friedman. “Thus this definition includes  $M_1$  plus time deposits of commercial banks in the supply of money.

- 2. The determinants of money supply.** The determinants of money supply are both exogenous and endogenous and which can be described broadly as:

- 1. The required reserve ratio:** The required reserve ratio (or the minimum cash reserve ratio or the reserve deposit ratio) is an important determinant of the money. An increase in the required reserve ratio reduces the supply of money with commercial banks and decrease in required reserve ratio increases the money supply. The RRR is the ratio of cash to current and time deposit liabilities which is determined by law. Every commercial bank is required to keep a certain percentage of these liabilities in the form of deposits with the central bank of the country.
- 2. The level of bank reserves:** The level of bank reserves is another determinant of the money supply. Commercial bank reserves consist of another determinant of the money supply. Commercial bank reserves consist of reserves on deposits with the central bank and currency in their tills or vaults. It is the central bank of the country that influences the reserves of commercial banks in order to determine the supply of money. The central bank requires all commercial banks to hold reserves equal to a fixed percentage of both time and demand deposits. These are legal minimum or required reserves.
- 3. Public’s desire to hold currency and deposits:** People’s desire to hold currency (or Cash) relative to deposits in commercial banks also determines the money supply.
4. High-powered money.
5. Other factors.

## TOPIC 5.THE DEMAND FOR MONEY

1. Meaning of demand for money

2. The classical approach
3. Its critical evaluation

#### THE KEYNESIAN APPROACH:

1. LIQUIDITY PREFERENCE

Keynes suggested three motives which led to the demand for money in an economy:

1. The transactions demand
2. The precautionary demand
3. The speculative demand.

#### TOPIC 6.INFLATION

1. Meaning and causes of inflation
2. Types of inflation

(a) Creeping Inflation

(b) Walking or trotting Inflation

(c) Running Inflation

(d) Hyperinflation

3. Effects of Inflation

4. Measures to control Inflation

(a) Monetary measures

(b) Fiscal measures

(c) Other measures

#### THE INFLATIONARY GAP

1. How can the inflationary gap be wiped out?
2. Its criticism
3. Its Importance

#### DEMAN-PULL OR MONETARY THEORIES OF INFLATION

1. Monetarist view or monetary theory of inflation.

## 2. Keynes' Theory of demand-pull Inflation

### COST-PUSH INFLATION

1. Its criticism
2. Demand-pull versus cost-push Inflation.
3. The Phillips curve: The relation between unemployment and inflation.

### Texts:

- Macroeconomic theory. By M.L Jhingan
- Macroeconomics concept, theory and applications: By B.O. Iganiga, Ph.D
- Macroeconomics: By Paul Krugman and Robin Wells.
- Macroeconomics: Principles, Problems, & Policies (Irwin Economics): By Campbell McConnell, Stanley Brue and Sean Flynn.
- Principles of Macroeconomics (Mankiw's Principles of Economics): By N. Gregory Mankiw.