



[Academic Script]

Aggregate Supply and Aggregate Demand Model - II

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| Paper No. & Title: | Paper – 301 Macroeconomics - I |
| Unit No. & Title: | Unit – 3 Aggregate Supply and Aggregate Demand Model |
| Lecture No. & Title: | Lecture – 2 Aggregate Supply and Aggregate Demand Model - II |

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1. Introduction

Consumption expenditure is the major constituent of aggregate demand in any economy. Keynes however, assumed that in the short run, real consumer spending is primarily determined by current real personal disposable income. That is the rise in income will lead to rise in consumption.

Fundamental Psychological Law of Consumption

The psychological law of consumption is based on the following propositions:

- As income increases consumption expenditure increases but less proportionately.
- Income is always bifurcated into spending and savings
- Increase in income will increase the savings.

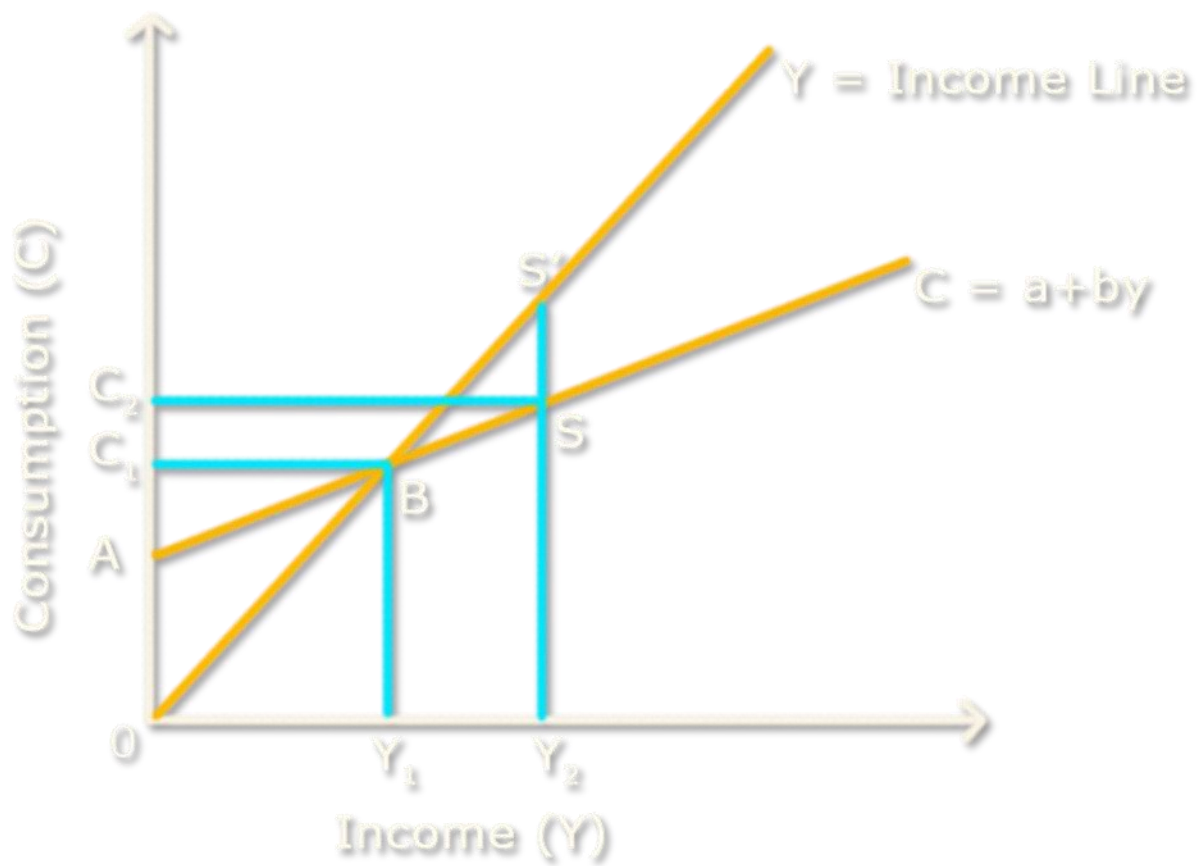
Thus, Keynes' law is limited by the following assumptions:

- Constancy of Psychological and Institutional Factors
- Normal Economic conditions
- Laissez-faire Policy

Therefore, $C=f(Y)$, $f>0$

2. Schedule of the Propensity to Consume

| Income (Y) | Consumption (c) |
|---------------------|---------------------|
| In crores of rupees | In crores of rupees |
| 10 | 20 |
| 20 | 25 |
| 30 | 30 |
| 40 | 35 |
| 50 | 40 |
| 60 | 45 |

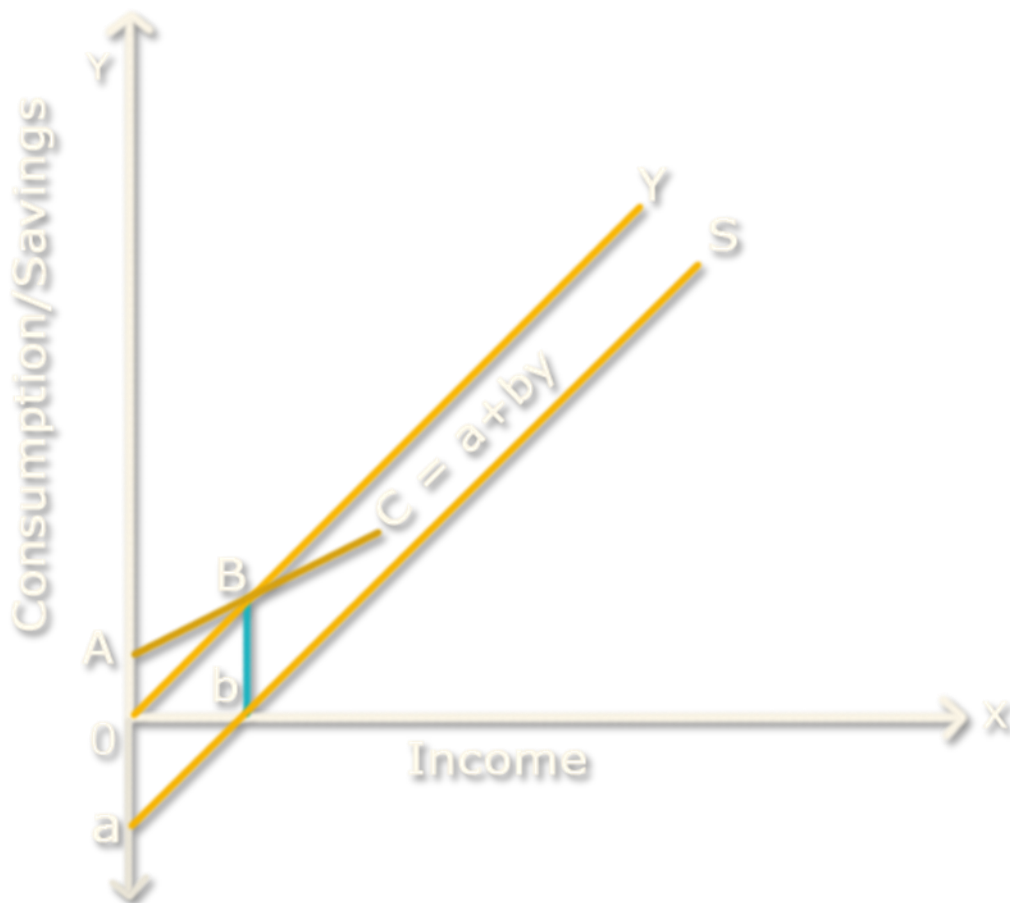


In the figure, the X-axis measures national income and along the Y-axis the amount of consumption is measured. In this figure, a line OY making 45° angle with the X-axis, has been drawn. Because line OY makes 45° angle with the X-axis every point on it is equidistant from both the X-axis and Y-axis 45° line depicts the income line. The CC curve represents the consumption schedule. It is evident from this figure that the consumption function curves CC deviates from the 45° line OY. At lower levels of income, the consumption function curve CC lies above the OY line, signifying that at these lower levels of income consumption is greater than the income.

With increase in the income from y_1 to y_2 the consumption increases but less proportionate, as evident from the figure i.e. $y_1 y_2$ is less than $c_1 c_2$. Also as income increases we can see there is provision for savings too. With increase in income a part of income is saved i.e. SS' .

Saving Function

$$S = Y - C$$



3. Average Propensity to Consume (APC)

The average propensity to consume is defined as the ratio of aggregate or total consumption to aggregate income in a given period of time. Thus, the value of average propensity to consume for any income level, may be found by $APC = \frac{C}{Y}$

Therefore, $APS = \frac{S}{Y} = 1 - \frac{C}{Y}$

Thus, APC is required to tell us what proportion of the total cost of a given output from planned employment may be expected to be recovered from selling consumer goods.

Where in APS, tells us what proportion of the total cost of a given output will have to be recovered by the sale of capital good.

| Income In crores of rupees | Consumption In crores of rupees | Average Propensity to Consume | Marginal Propensity to Consume |
|----------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| (Y) | (C) | $APC = \frac{C}{Y}$ | $MPC = \frac{\Delta C}{\Delta Y}$ |
| 30 | 30 | $\frac{30}{30} = 100\%$ | - |
| 40 | 35 | $\frac{35}{40} = 87.5\%$ | $\frac{5}{10} = 0.50$ |
| 50 | 40 | $\frac{40}{50} = 80\%$ | $\frac{5}{10} = 0.50$ |
| 60 | 45 | $\frac{45}{60} = 75\%$ | $\frac{5}{10} = 0.50$ |

4. Marginal Propensity to Consume

$$MPC = \frac{\Delta C}{\Delta Y} < 1$$

MPC is constant when consumption function is linear, but in case of non-linear consumption function MPC will not be constant.

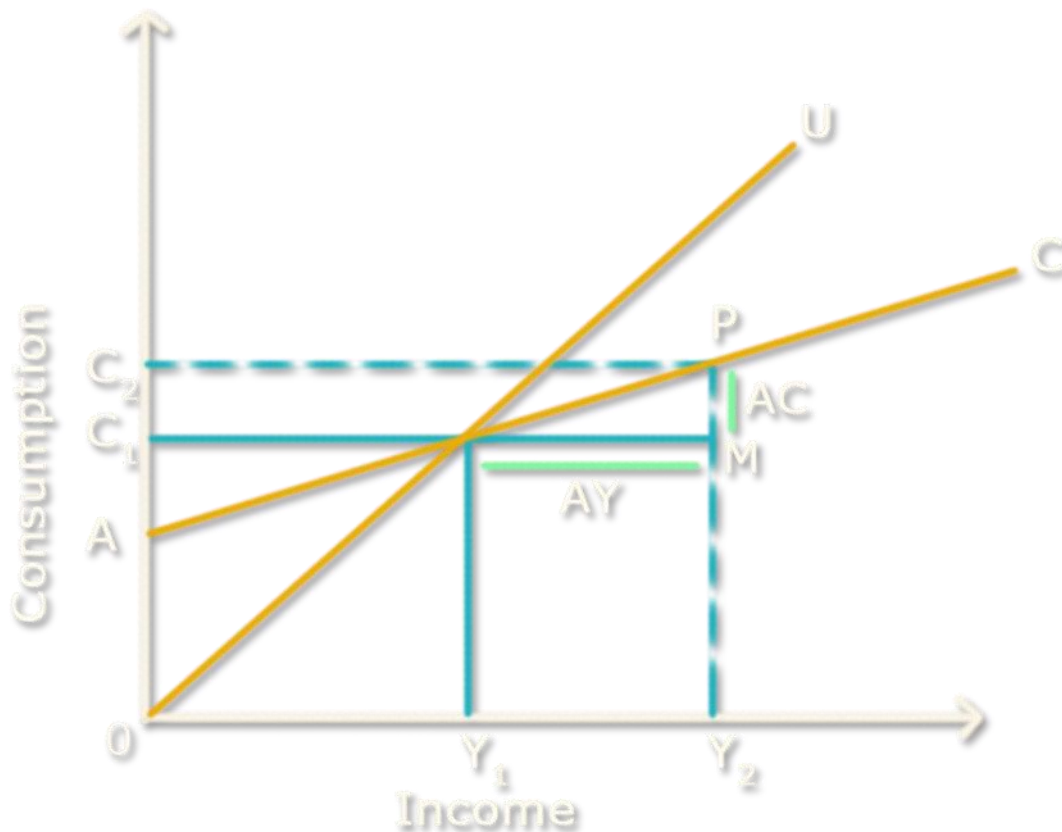
However, MPC is always positive but less than one.

According to Keynes, the propensity to consume is a fairly stable function of income with the marginal propensity to consume being positive but less than unity. Keynes, however, did not state what would be the exact nature of the MPC within the limits laid down.

- The MPC may rise, fall or remain constant between the limits set.
- However, he implicitly stated that the MPC will not be constant when cyclical fluctuations cause change in objectives factors determining the propensity to consume.

Graphical Measurement of APC and MPC

Diagrammatically, the average propensity to consume is measured at a single point on the C curve. In Figure below, it is determined at Point A (where C/Y gives APC).



The marginal propensity to consume, on the other hand, is measured by the slope or gradient of the C curve, i. e., the consumption function schedule or curve. To ascertain the slope of the C curve, we draw a horizontal line through A, the previous consumption Income point, and then measure vertically to the tangent P, the changed consumption-income point. We shall find that the ratio of the vertical length PM to the horizontal length AM is 0.8.

Empirical relationship between APC and MPC

The two consumption propensities are closely inter-related

- When the MPC is constant, the consumption function is linear, i.e., a straight line curve. The APC will also be constant only if the consumption function passes through the origin. When it does not pass through the origin, the APC will not be constant.
- As income rises, the MPC also falls, but it falls to greater extent than the APC.
- As income falls, the MPC rises. The APC will also rise but at a slower rate.

5. Summary

At the end, friends to summarize it's time for a quick revision.

Today's session covered an important concept of **1)**

Consumption function: It is a linear function which is dependent on income. i.e. as income increases consumption increases but less proportionately. We also learnt about psychological law of consumption

1) As income increases consumption expenditure increases but less proportionately.

2) Income is always bifurcated into spending and savings

3) Increase in income will increase the savings. Lastly we also learnt about APC and MPC. It is important to note that APC and MPC both lie between 0 and 1. Hope this session was enlightening.