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B.A. Economics
B.A. Part -1
Paper - 2
Topic - Consumption Function

Consumption Function :

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Consumption function can be defined as the schedule detailing the relationship between aggregate consumption expenditure and income.

Therefore,

$$C = f(Y)$$

where, C = Consumption

Y = income

f = functional relationship

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2.00

Thus, consumption function indicates a functional relation between C and Y, where 'C' is the dependent and 'Y' is independent variable.

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The relationship is based on the ceteris paribus assumption, as such only income-consumption relationship is considered and all possible influences on consumption are held constant.

6.00

The consumption function has two technical attributes or properties :

7.00

- i). The average propensity to consume (APC)
- ii). The marginal propensity to consume (MPC)

1). Marginal propensity to Consume :

Important Calls

Marginal propensity to consume may be defined ✓
as the ratio of change in consumption to
the change in income. OR,

as the rate of change in the average propensity to consume as income changes. Thus,

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

Where,

MPC = Marginal propensity to consume

ΔC = change in consumption

ΔY = change in income

• Significance of MPC :

1. When income increases, the MPC falls and fall in MPC will be greater than fall in APC.
2. When income falls, the MPC rises and APC also rises but slower than the rate of fall in MPC.
3. Above given changes are only possible during cyclical fluctuations whereas in the short-run there is no change in the MPC and $MPC < APC$.
In the long run, $MPC = APC$.
4. When the average propensity to consume remains constant, MPC is equal to it.

Important Calls

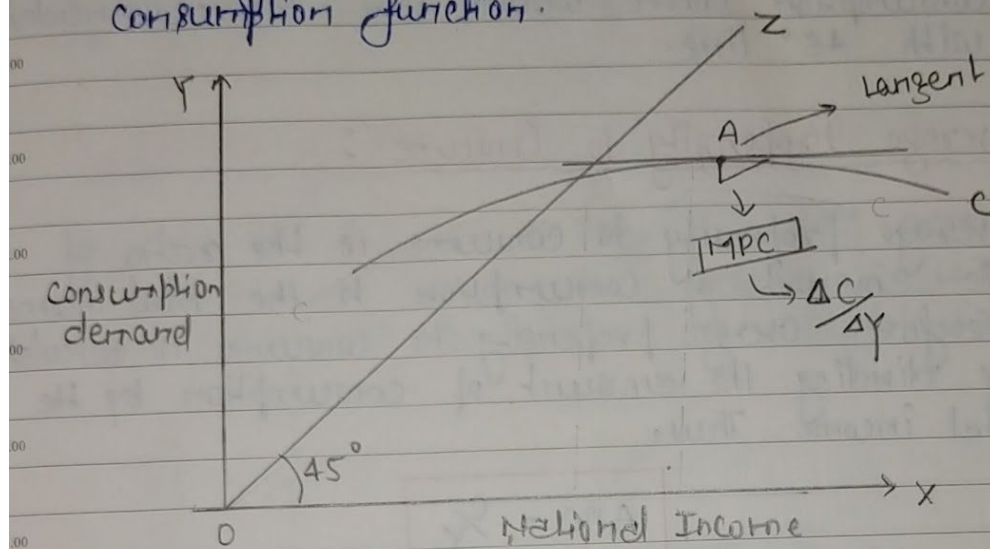
✓ Things to Do

✓ Meetings

APC = constant

then, $MPC = APC$ •

5. Marginal propensity to consume can be estimated by drawing the tangent at a point on the consumption function.



6. When marginal propensity to consume declines with increase in income, consumption curve is non-linear (above graph) whose slope declines as income rises.

7. If consumption curve is a straight line i.e., the slope of the consumption curve remains constant then MPC also remains constant.

8. If $MPC = 0$, then the whole of the increment of the income would have been saved and the consumption curve would have a horizontal shape.

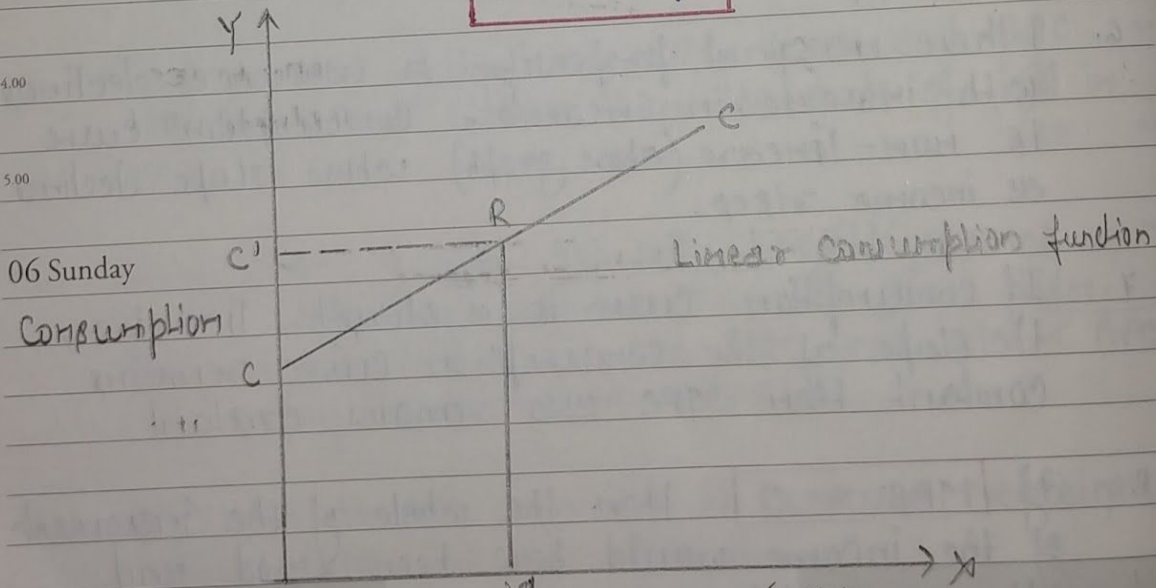
Note:- $0 < MPC < 1$

9. If $MPC = 1$, the whole increment in income would have been consumed and in that case consumption curve would have been coincided with 45° line.

2). Average Propensity to Consume :

Average propensity to consume is the ratio of the amount of consumption to the total income. Therefore, average propensity to consume is calculated by dividing the amount of consumption by the total income. Thus,

$$APC = \frac{C}{Y}$$



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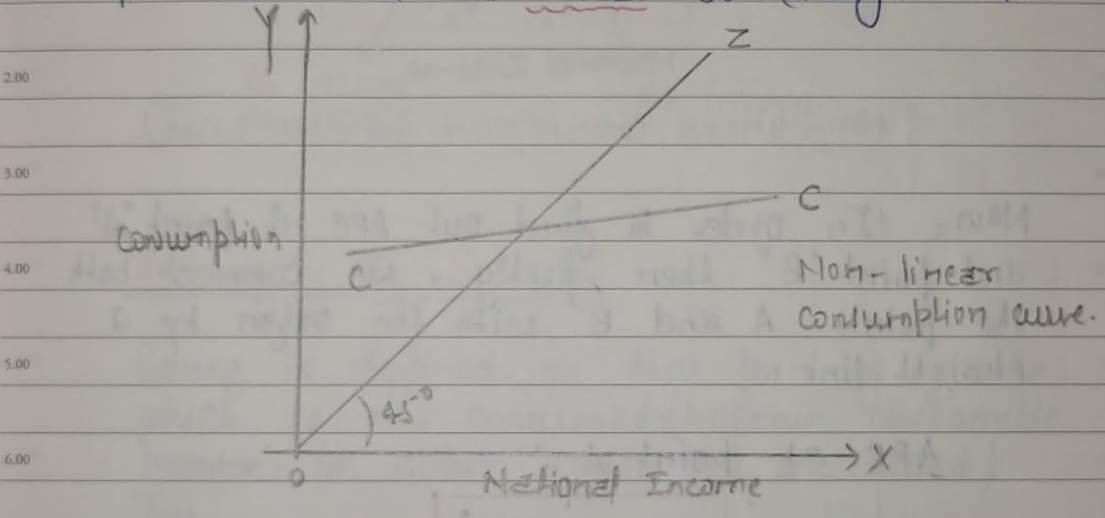
Consumption

Important Calls	✓	Things to Do	✓	Meetings	✓
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Diagrammatically, the APC is any point on the consumption curve. Point R measures the APC of the CC curve which is $\frac{OC'}{OY'}$

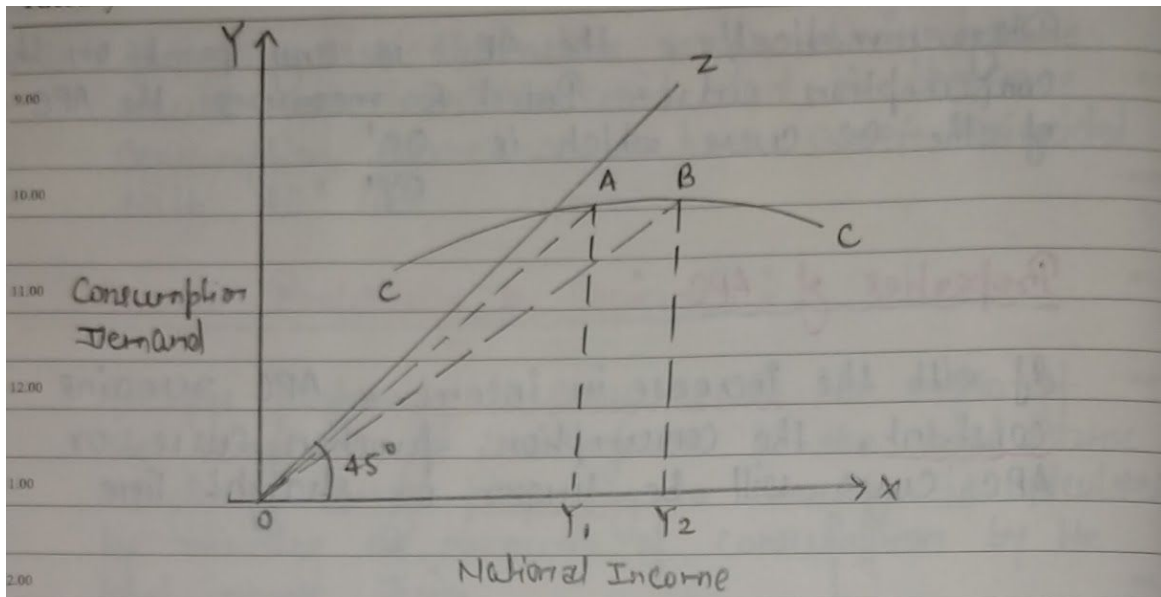
Properties of APC :

If with the increase in income, APC remains constant, the consumption function curve or APC curve will be linear or straight line



When with the income increase, APC declines, then the consumption curve will be "non-linear" (not straight line passing through the origin)

Important Calls	✓	Things to Do	✓	Meetings	✓
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(Non-linear consumption function curve)

Now, In order to find out APC at point 'A' and point 'B' then firstly, we connect both the points A and B with the origin by a straight line.

APC at point A,

$$APC = \frac{AY_1}{OY_1} = \text{slope of OA line.}$$

APC at point B,

$$APC = \frac{BY_2}{OY_2} = \text{slope of OB line.}$$

The glance at the figure shows that the slope of the line OB is smaller than the slope of the line OA.

Therefore,

$$\text{APC at point B} < \text{APC at point A}$$

$$\frac{AY_1}{AY_2} > \frac{BY_1}{BY_2}$$

At income level OY_1

At income level OY_2

Propensity To Save :

Saving is defined as that part of income which is not consumed (because disposable income is either consumed or saved)

Thus,

$$Y_d = C + S \quad \text{OR,} \quad S = Y_d - C$$

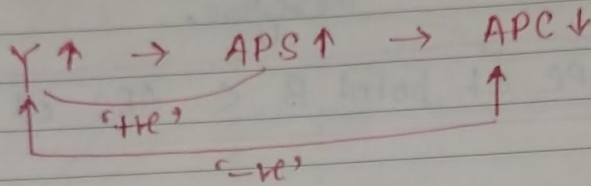
APS (Average Propensity to Save)

Average propensity to save is the proportion of disposable income i.e., saved.

$$\text{APS} = \frac{\text{Saving}}{\text{Income}} = \frac{S}{Y}$$

Thursday

Since, Average propensity to consume falls as income increases. This implies that average propensity to save will increase as income rises.



Relationship b/w APC and APS:

$$C + S = Y$$

Dividing both sides by disposable income Y we have,

$$\frac{C}{Y} + \frac{S}{Y} = \frac{Y}{Y} = 1$$

$$\frac{C}{Y} + \frac{S}{Y} = 1$$

$$\therefore \boxed{APC + APS = 1}$$

$$\rightarrow \boxed{APS = 1 - APC}$$

$$\rightarrow \boxed{APC = 1 - APS}$$

Marginal Propensity To Save :-

Whereas APS indicates the proportion of income i.e., saved, MPS represents how much of the additional disposable income is devoted to saving.

The MPS is therefore change in savings induced by a change in the disposable income. Thus,

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

Since, the additional income is either saved or consumed, the sum of MPC and MPS is equal to 1.

$$MPS + MPC = 1$$

Relationship b/w MPS & MPC :

$$C + S = Y$$

$$\therefore \Delta C + \Delta S = \Delta Y$$

dividing both sides by ΔY , we have;

$$\frac{\Delta C}{\Delta Y} = \frac{\Delta S}{\Delta Y} = \frac{\Delta Y}{\Delta Y} = 1$$

$$\frac{\Delta C}{\Delta Y} = \frac{\Delta S}{\Delta Y} = 1$$

$$MPC = MPS = 1$$