

The consumption function has two technical attributes or properties:

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

With a given change in income how much consumption changes in response to it depends upon the average marginal propensity to consume.

1. The Average Propensity to Consume : The APC is defined

as the ratio of consumption expenditure to any particular level of income i.e. APC is the ratio of the amount of consumption to total income.

APC is calculated by dividing the amount of consumption by the total income.

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

where, C is consumption

Y is the level of income and

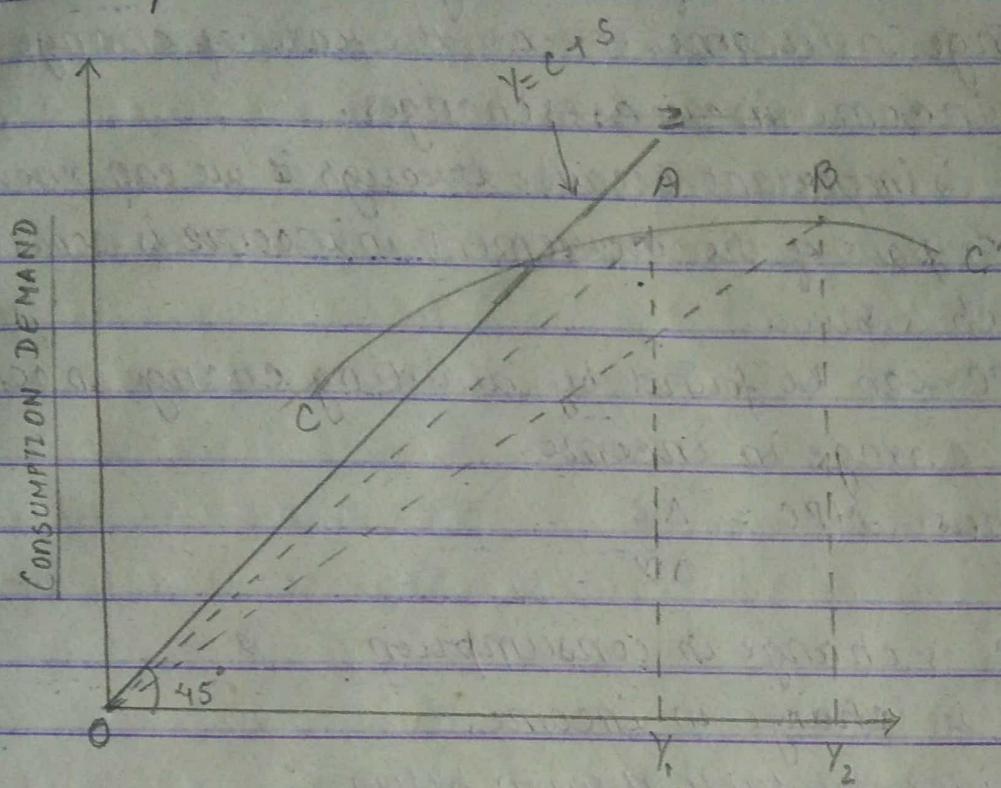
APC stands for Average Propensity to Consume

Now we consider the table drawn below which shows the APC at various income level.

Income (Y) (Rs. in Cr)	Consumption (C) (Rs. in Cr)	$\text{APC} = \frac{C}{Y}$
120	120	$\frac{120}{120} = 1$
180	170	$\frac{170}{180} = 0.92$
240	220	$\frac{220}{240} = 0.91$
300	270	$\frac{270}{300} = 0.90$
360	320	$\frac{320}{360} = 0.88$

Now from the above table we see that at the level of income of Rs 180, consumption expenditure is equal to Rs 170 and therefore APC here is equal to $\frac{170}{180}$ i.e. 0.92, again now when income increases to Rs 240, consumption expenditure increases to Rs 220 and APC declines to 0.91.
So, from the table we see that as income increases APC decreases.

this is because as the proportion of income spent on consumption decreases.



N.I

In the fig. drawn above cc' is the Keynesian consumption function curve. We can find out APC from any point on propensity-to-consume curve cc' by joining that point with the point of origin by a straight line whose slope will measure the APC. Now from fig. if we want to find out APC at Point A on consumption curve cc' then first of all we would connect point A with the origin by a straight line and now the slope of the line OA i.e. $\frac{AY_1}{OY_1}$ would indicate the APC.

OY_1

Similarly at point B, the slope of the line OB i.e. $\frac{BY_2}{OY_2}$ would give the APC.

OY_2

From the fig. it could also be seen that slope of line $OB <$ slope of line OA . Therefore APC at income level OY_2 is less than OY_1 . Hence it can be said that APC decreases with increase in income.

2. The Marginal Propensity to Consume: The MPC is defined as the ratio of the change in consumption to the change in income, or as the rate of change in APC as income increases changes.

MPC is important because through it we can know that how much part of the increment in income is consumed & how much is saved.

MPC can be found by dividing change in consumption by change in income.

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

where ΔC is change in consumption
 ΔY is change in income.

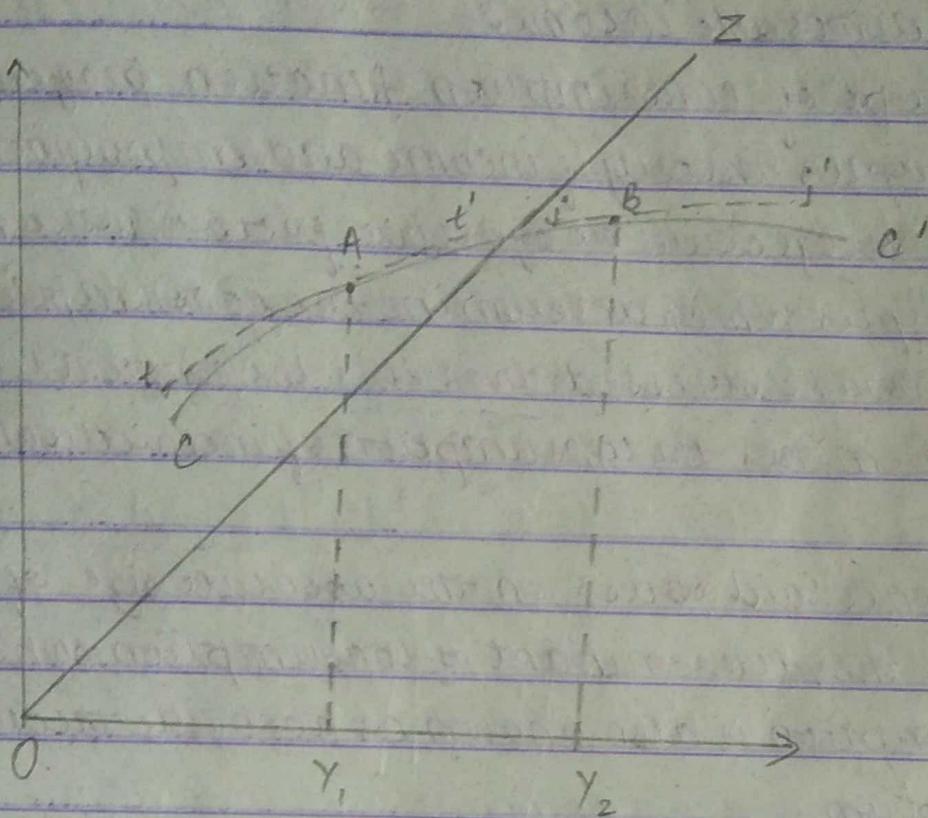
Now consider the table drawn below :

Income (Y) (Rs-increases)	Consumption (C) (Rs-increases)	MPC $\left(\frac{\Delta C}{\Delta Y} \right)$
1000	950	-
1100	1040	$\frac{90}{100} = 0.9$
1200	1120	$\frac{80}{100} = 0.8$
1300	1190	$\frac{70}{100} = 0.7$
1400	1250	$\frac{60}{100} = 0.6$
1500	1300	$\frac{50}{100} = 0.5$

From the table we see that when income rises from Rs 1000 to Rs 1100, consumption expenditure rises from Rs 950 to Rs 1040 so the increment in income is Rs 100 and increment in consumption is Rs 90 only and hence therefore MPC is 0.9.

Now when income rises to Rs 1800; consumption expenditure rises to Rs. 1120 and MPC declines to 0.8.

So we see that with increase in income MPC decreases.



In the fig. above cc' is the consumption function curve.

MPC at any point can be estimated by drawing the tangent at a point on the consumption function.

In the fig. MPC at point A would be equal to the slope of the tangent tt' drawn at that point.

similarly MPC at point B would be given by the slope of tangent jj'' drawn at this point.

From fig we see that slope of tangent jj'' is less than tt' .

Therefore MPC at point B is less than at point A.

Thus when MPC declines with increases in income, consumption function is non linear whose slope declines as income rises.

MPC varies between zero and unity.