Quadrant II - Notes

Paper Code: ECC 101

Module Name: Income and Substitution Effects

Module No: 34

INCOME AND SUBSTITUTION EFFECTS:

A fall in the price of good has two effects:

1. Consumer will tend to buy more of the good that has become cheaper and less of those goods that are now relatively more expensive. This response to a change in the relative prices of goods is called the substitution effect.
2. Because one of the goods is now cheaper, consumers enjoy an increase in real purchasing power. They are better off because they can buy the same amount of the good for less money, and thus have more money left over for additional purchases. The change in demand resulting from this change in real purchasing power is called the income effect.

INCOME AND SUBSTITUTION EFFECTS FOR NORMAL GOODS:

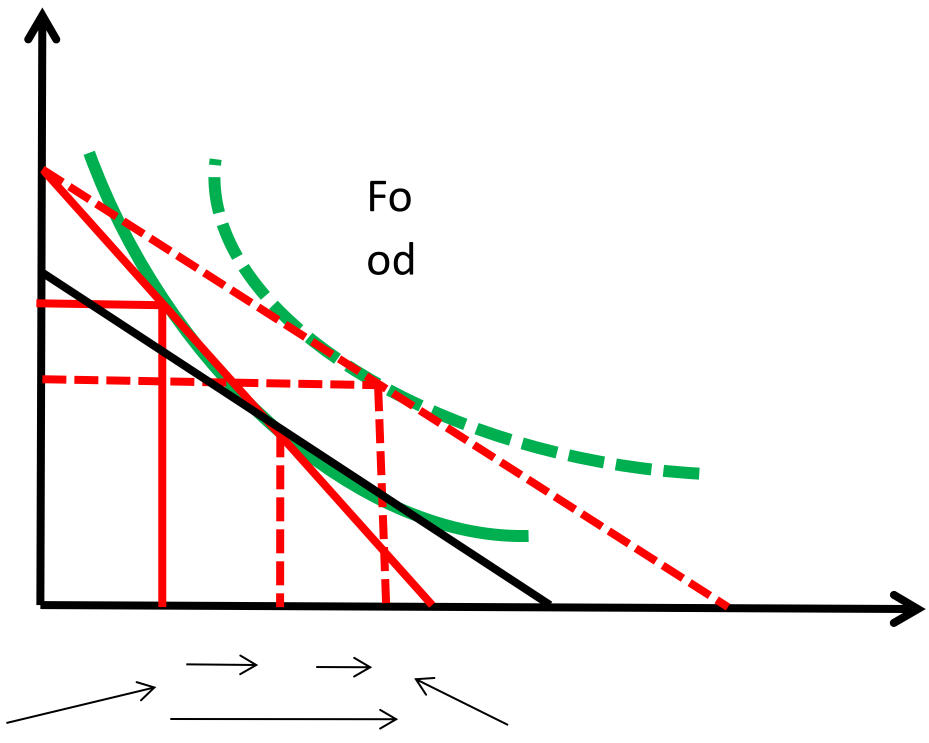
This is explained with the help of diagram:

- The initial budget line is RS and there are two goods, food and clothing.

Here, the consumer maximises utility by choosing the market basket at A, thereby obtaining the level of utility associated with the indifference curve U1.

- Now if the price of food falls, the budget line will rotate outwards to RT. The consumer now chooses the market basket at B on indifference curve U2.

- The total change in the consumption of food caused by the lower price is given by F1F2.Initially, the consumer purchased OF1 units of food, but after the price change, food consumption has increased to OF2.



<u>Substitution Effect:</u>

It is the change in food consumption due to a change in the price of food, level of utility held constant.

- The substitution effect can be obtained by drawing a budget line which is parallel to the new budget line RT and which is just tangent to the original indifference curve U1.
- Given the budget line, the consumer chooses market basket D and consumes OE units of food. The line segment F1E thus represents the substitution effect.
- Thus when the price of food declines, the substitution effect always leads to an increase in the quantity of food demanded.

Income Effect:

It is the change in food consumption brought about by the increase in purchasing power, with relative prices held constant.

- In the diagram it is shown by the budget line RT and indifference curve U2 which is tangent at point B. Since lower price of food has increased the level of utility.
- The increase in food consumption from OE to OF2 is the income effect, which is positive, because food is a normal good (consumers will buy more of it as their income increases).

Total Effect (F1F2) = Substitution effect (F1E) + Income Effect (EF2).

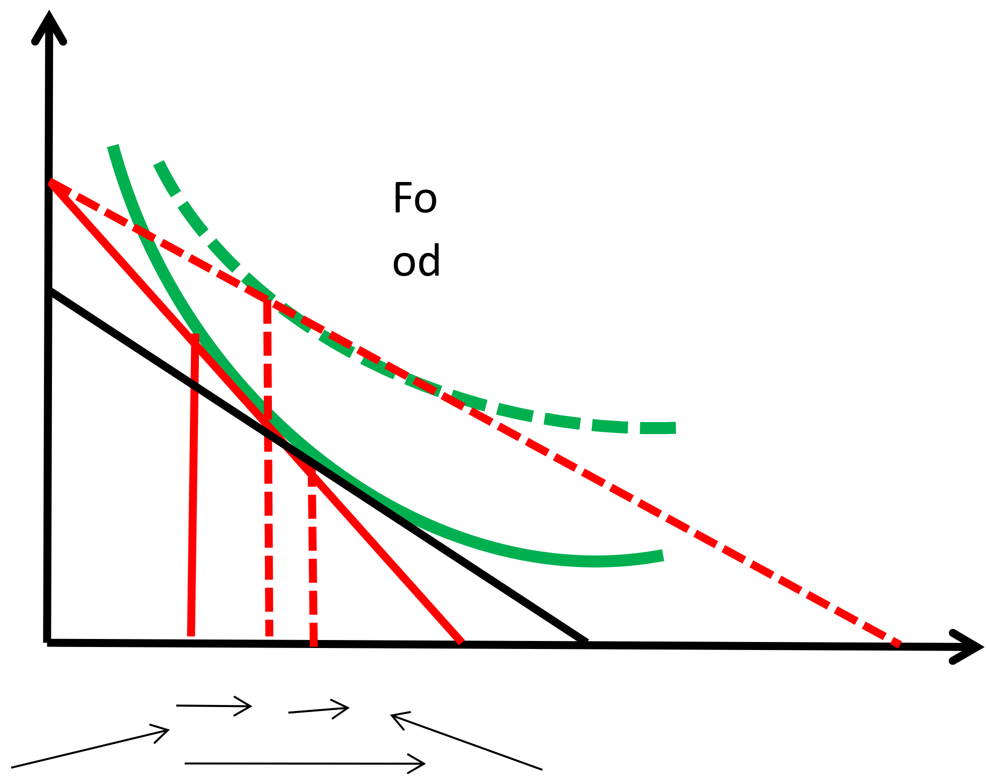
INCOME AND SUBSTITUTION EFFECTS – INFERIOR GOODS:

A good is inferior when the income effect is negative ,that is,as income rises, consumption falls.

This is shown with the help of diagram:

- The negative income effect is measured by line segment EF2.
- The consumer is initially at A on budget line RS. With a decrease in price of food, the consumer moves to point B.
- The resulting change in food purchased can be broken down into a substitution effect F1E (move from point A to point D)and an income effect EF2 (move from D to B).
- In this case food is an inferior good because the income effect is negative.

- However because the substitution effect exceeds in income effect, the decrease in the price of food leads to an increase in the quantity of food demanded.



CONCLUSION:

A normal good is a good whose consumption increases as a result of an increase in income Whereas an inferior good is a good whose consumption decreases as income increases.

The income effect is positive for normal goods and negative for inferior goods.

Substitution effect is the change in consumption of a good due to a change in its price whereas income effect is the change in consumption of a good as a result of an increase in purchasing power.