

to cause more of the product to be demanded and a rise in price they will both have the opposite effect. This may be the case for normal goods however this does not hold for inferior goods. They end up working in the opposite direction. A price fall will cause an individual to consume more because of the substitution effect however if the good is inferior the increased purchasing power may cause a decline in good bought. The result therefore is in determinant they are both pulling in the opposite directions.

Having analysed the underlying assumptions for utility maximisation it is now possible to look at the **uncompensated** Marshallian demand curves and the **compensated** Hicksian demand curve in turn.

Uncompensated Marshallian demand curve:

We assume there are only two goods X, Y the demand function for X is given by

$$X^* = D_x (P_x, P_y, I)$$

As the price of X falls keeping the price of Y and I constant it is assumed that more of X will be demanded to maximise utility the individual demand curve will be negatively sloped. This is the most common way to impose Ceteris Paribus assumption to derive the individual demand curve. To achieve this it is necessary to keep three basic assumptions constant

- Income
- Prices of other goods
- The individual preference

The **Compensated Hicksian** demand curve: provides an alternative approach of imposing ceteris paribus. In the Hicksian demand curve utility U_1 is held constant so that as the price of X falls so to is the individuals nominal income reduced so that he is either worse of or better off from the price reduction. In other words the effects of the price change on purchasing power are "compensated" so that the individual remains on U_1 . The process is reversed when price rises so that income is raised to keep utility constant. The demand curve can be illustrated algebraically

$$X^* = h_x (P_x, P_y, U)$$