

The Slutsky equation allows us to give a definitive treatment of the direction and size of substitution and income effect that was possible only graphically.

- The substitution effect is always negative as long as the MRS is diminishing. A rise in  $P_x$  increases  $P_x/P_y$  and utility maximisation requires that the MRS to rise too. But this can only happen along an indifference curve if  $X$  increases. Hence in so far as the substitution effect is concerned price and quantity have to go in the opposite direction thus the slope of the demand curve must be negative. This is dependent on whether the good is normal or inferior. Because then the sign is not negative as price and quantity go in the same direction.

Conclusion: it is more often that the uncompensated Marshallian demand curves are used when analysing individual utility maximising choices the compensated Hicksian demand curve is harder to derive often we lack data on how quantity changes with nominal  $I$  changes.