

Up to Now

- So far, we have shown that given a budget constraint and a description of preferences (utility), we can derive demand curves.
- The effect of price changes on demand curves can be decomposed into two effects:
 - Substitution effect – always negative
 - Income – negative if the good is normal

Market Demand Curves

- All this work has analyzed the demand curve of one individual.
- But market demand curves are formed from the interaction of many individuals.
- How do we go from the analysis that we have done up to now to market demand curves?

Add Demands at a Given Price

- Let $d_i(p, I_i)$ be the i^{th} person's demand for a good at price p .
 - Person i has income = I_i .
- At any given price, the market demand, D , will be the sum of individual demands:

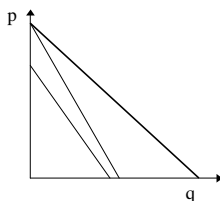
$$D(p, I_1, I_2, \dots, I_n) = \sum_{i=1}^n d_i(p, I_i)$$

Features of Market Demand

$$D(p, I_1, I_2, \dots, I_n) = \sum_{i=1}^n d_i(p, I_i)$$

- Market demand is a function of the distribution of income in a market, rather than just mean income.
- If all individual demand curves are downward sloping with respect to price, then the market demand curve will also be downward sloping.

Graphical Derivation



The market demand curve is the horizontal sum of all the individual demand curves.