

Utility & Demand Analysis

What is Utility?

Satisfaction, happiness, benefit

Cardinal Utility vs. Ordinal Utility

Cardinal Utility: Assigning numerical values to the amount of satisfaction

Ordinal Utility: Not assigning numerical values to the amount of satisfaction but indicating the order of preferences, that is, what is preferred to what

Util

A unit of measure of utility

Total Utility

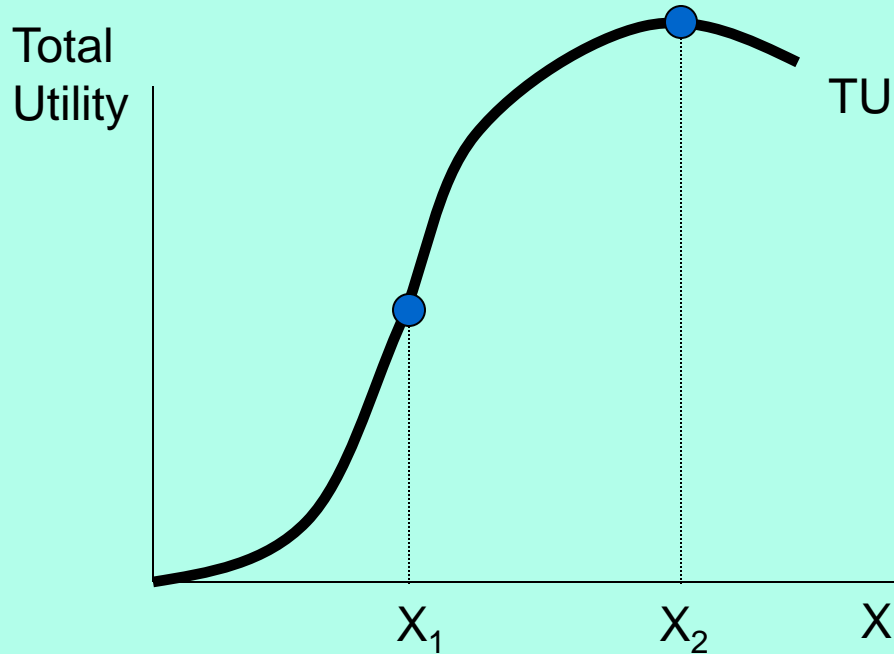
The amount of satisfaction obtained by consuming specified amounts of a product per period of time.

Marginal Utility

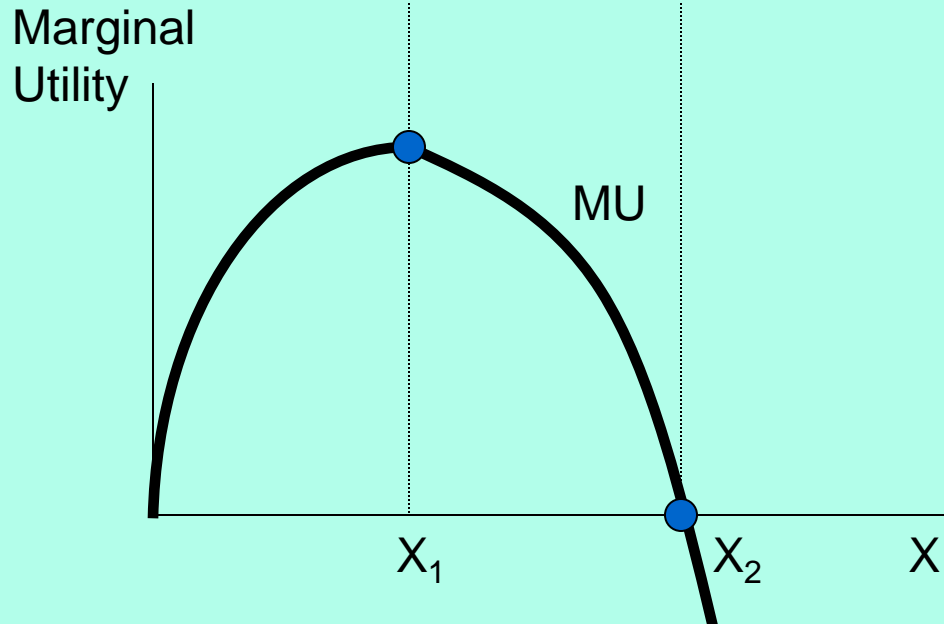
The change in total utility (ΔTU) resulting from a one unit change in consumption (ΔX).

$$MU = \Delta TU / \Delta X$$

Graphs of Total Utility & Marginal Utility



X_1 is where marginal utility reaches its maximum. This is where we encounter diminishing marginal utility. The slope of TU has reached its maximum; TU has an inflection point here.



X_2 is where total utility reaches its maximum. MU is zero. This is the saturation point or satiation point. After that point, TU falls and MU is negative.

In our example, we had the following:

Number of units purchased (Q)	Price you are willing to pay (P)	Marginal Utility
0	-	-
1	10	10
2	8	8
3	6	6