

Consumer Behavior

From:

Book 1: Chapter 7



Law of Diminishing Marginal Utility

- **Utility** is the satisfaction one gets from consuming a good or service
 - “Utility” and “usefulness” are not synonymous.
 - Utility is subjective.
 - Utility is difficult to quantify.



Law of Diminishing Marginal Utility

- Util is one unit of satisfaction or pleasure
- Total utility (TU) is the total amount of satisfaction
- Marginal utility (MU) is the extra satisfaction from an additional unit of the good
 - $MU = \Delta TU / \Delta Q$



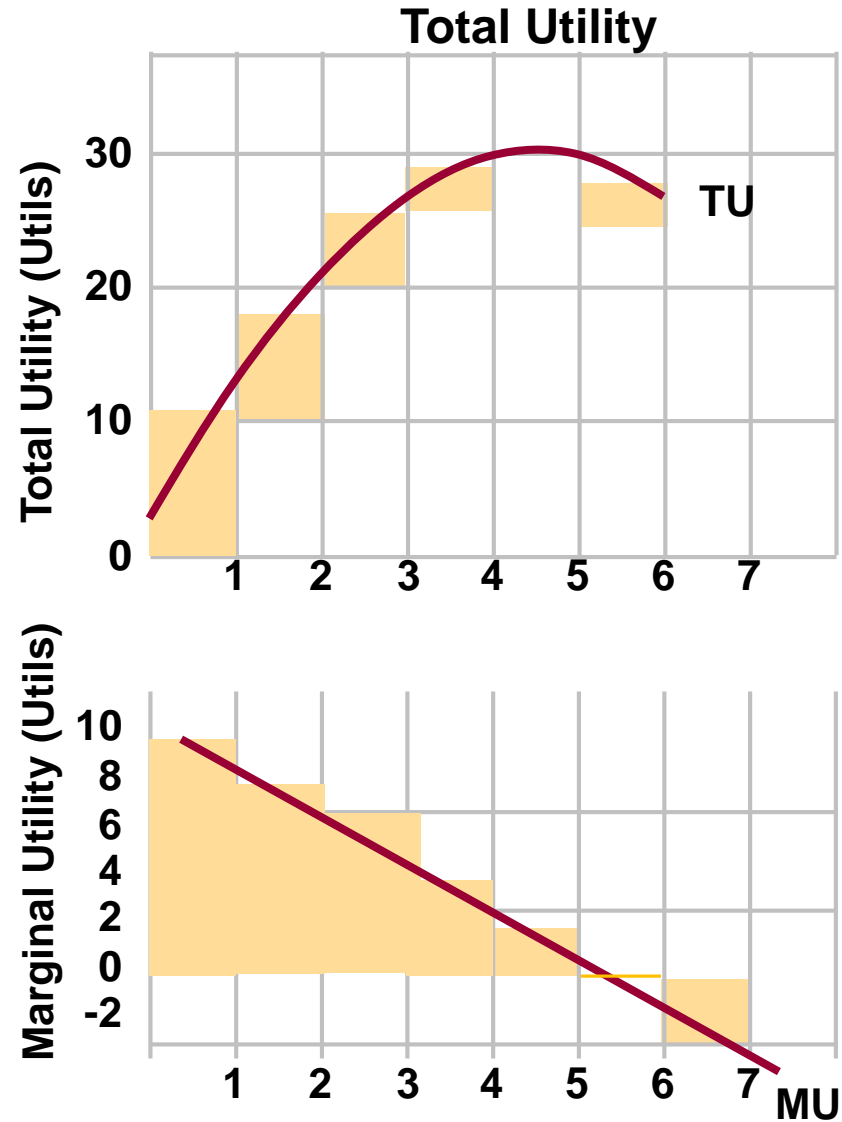
Law of Diminishing Marginal Utility

- As consumption of a good or service increases, the marginal utility obtained from each additional unit of the good or service decreases
- Explains downward sloping demand



Total Utility and Marginal Utility

(1) Tacos Consumed Per Meal	(2) Total Utility, Utils	(3) Marginal Utility, Utils
0	0	10
1	10	8
2	18	6
3	24	4
4	28	2
5	30	0
6	30	-2
7	28	



Quick Quiz

Marginal utility in the example is positive, but declining, when total utility is positive and:

- a. rising at an increasing rate.
- b. falling at an increasing rate.
- c. rising at a decreasing rate.
- d. falling at a decreasing rate.



Theory of Consumer Behavior

- Rational behavior
- Preferences
- Budget constraint
- Prices



Utility Maximizing Rule

- To maximize satisfaction, the consumer should allocate his or her money income so that the last dollar spent on each product yields the same amount of extra (marginal) utility.
- When the consumer has “balanced his margins” using this rule, he has achieved **consumer equilibrium** and has no incentive to alter his expenditure pattern.
- Algebraically

$$\frac{\text{MU of product A}}{\text{Price of A}} = \frac{\text{MU of product B}}{\text{Price of B}}$$



Numerical Example

TABLE 7.1 The Utility-Maximizing Combination of Apples and Oranges Obtainable with an Income of \$10*

(1) Unit of Product	(2) Apple (Product A): Price = \$1		(3) Orange (Product B): Price 5 = \$2	
	(a) Marginal Utility, Utils	(b) Marginal Utility per Dollar (MU/Price)	(a) Marginal Utility, Utils	(b) Marginal Utility per Dollar (MU/Price)
First	10	10	24	12
Second	8	8	20	10
Third	7	7	18	9
Fourth	6	6	16	8
Fifth	5	5	12	6
Sixth	4	4	6	3
Seventh	3	3	4	2



Decision-Making Process

TABLE 7.2 Sequence of Purchases to Achieve Consumer Equilibrium, Given the Data in Table 7.1

Choice Number	Potential Choices	Marginal Utility per Dollar	Purchase Decision	Income Remaining
1	First apple	10	First orange for \$2	$\$8 = \$10 - \$2$
	First orange	12		
2	First apple	10	First apple for \$1 and second orange for \$2	$\$5 = \$8 - \$3$
	Second orange	10		
3	Second apple	8	Third orange for \$2	$\$3 = \$5 - \$2$
	Third orange	9		
4	Second apple	8	Second apple for \$1 and fourth orange for \$2	$\$0 = \$3 - \$3$
	Fourth orange	8		



There's No Accounting for Taste (p. 144)

In 2015, the federal government started requiring restaurants to print calorie counts next to menu items. The regulation was intended to help consumers make healthful choices. In particular, it was assumed that if they could see how many calories each item contained, consumers would consume fewer total calories. They would opt for salads instead of milkshakes.

But a funny thing happened when the new rules went into effect. Some people started consuming more calories. They did so because their preferences were not what policymakers expected. Instead of trying to maximize the amount of healthfulness per dollar of money spent, they instead chose to maximize the number of calories per dollar of money spent. Their preferences were such that when it came to maximizing utility, what they wanted was the maximum number of calories, not the maximum amount of health. So when the new regulations provided them with calorie counts, they went for milkshakes instead of salads and double cheeseburgers instead of chicken skewers.

The lesson learned? Know what people are trying to maximize before you attempt to alter their behavior.



Applications and Extensions

- iPads
- The Diamond-Water Paradox
- Opportunity Cost and the Value of Time
- Medical Care Purchases
- Cash and Noncash Gifts



Reading Assignment

- “Criminal Behavior”
- Book 1, Page 147

