



Welcome

Ms.Sonali Bolakhe

- Department of Economics
- Arihant Arts ,Commerce and Science college,
Baydhan, Pune



Utility Analysis

- **Topics Covered**
- **Law of Diminishing Marginal Utility**
- **Assumptions**
- **Exceptions to the Law of Diminishing Marginal Utility**



- **Law of Diminishing Marginal Utility**

- This law was first proposed by Prof. Gossen but was discussed in detail by Prof. Alfred Marshall in his book ‘Principles of Economics’ published in 1890.
- The law of diminishing marginal utility is universal in character. It is based on the common consumer behavior that utility derived diminishes with the reduction in the intensity of a want.

Statement of the Law :

- According to Prof. Alfred Marshall, “Other things remaining constant, the additional benefit which a person derives from a given increase in his stock of a thing, diminishes with every increase in the stock that he already has.”
- In other words, marginal utility that any consumer derives from successive units of a particular commodity goes on diminishing as his or her total consumption of that commodity increases. In short, the more of a thing you have, the less you want to have more of it.



- **Assumptions :**

- Following are the assumptions of the law of diminishing marginal utility :

- 1) **Rationality** : Consumer is assumed to be rational. It means that his behavior is normal and he tries to maximize his satisfaction.
- 2) **Cardinal measurement** : The law assumes that utility can be cardinally or numerically measured. Hence, mathematical operations are easily possible to know and compare the utility derived from each unit of a commodity.

- 3) **Homogeneity** : All units of a commodity consumed are exactly homogeneous or identical in size, shape, color, taste etc.
- 4) **Continuity** : All units of commodity are consumed in quick succession without any lapse of time
- 5) **Reasonability** : All the units of a commodity consumed are of reasonable size. They are neither too big nor too small.
- 6) **Constancy** : All the related factors like income, tastes, habits, choices, likes, dislikes of a consumer should remain constant. Marginal utility of money is also assumed to be constant.

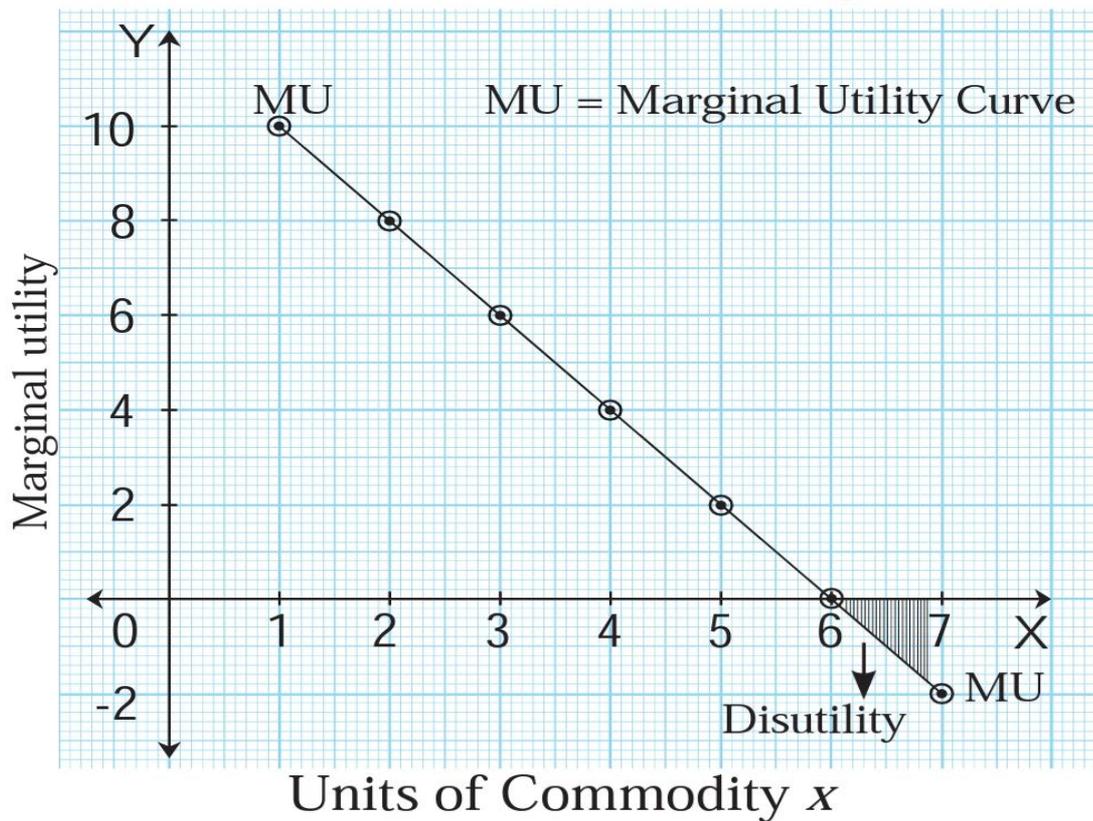
- 7) **Divisibility** : The law assumes that the commodity consumed by the consumer is divisible so that it can be acquired in small quantities.
- 8) **Single want** : A given commodity can satisfy a single want of a person. The law assumes an experience of a single want which is completely satiable at a given point of time.

Following Table explains the Law of Diminishing Marginal Utility.



The table shows that marginal utility keeps on diminishing with increase in consumption, further it becomes zero and then negative

Units of x	Marginal Utility (MU)
1	10
2	8
3	6
4	4
5	2
6	0
7	-2



- **Explanation of the Diagram :**

- In the above diagram, units of commodity x are measured on X axis and marginal utility is measured on Y axis. Various points of MU are plotted on the graph as per the given schedule. When the locus of all the points is joined, MU curve is derived

MU curve slopes downwards from left to right which shows that MU goes on diminishing with every successive increase in the consumption of a commodity.

When MU becomes zero, MU curve intercepts the X axis. Further consumption of a commodity.

Its brings disutility (negative utility) which is shown by the shaded portion in the diagram



- **Exceptions to the Law of Diminishing Marginal Utility :**

- Following are the exceptions to the law of diminishing marginal utility :

1) **Hobbies** : In certain hobbies like collection of various stamps and coins, rare paintings, music, reading etc., the law does not hold true because every additional increase in the stock gives more pleasure. This increases marginal utility. However, this violates the assumption of homogeneity and continuity.

- 2) **Power** : This is an exception to the law because when a person acquires power, his lust for power increases. He desires to have more and more of it. However, this again violates the rationality assumption.
- 3) **Money** : It is said that the MU of money never becomes zero. It increases when the stock of money increases. This is because money is a medium of exchange which is used to satisfy various wants. However, according to some economists, this law is applicable to money too. For example, marginal utility of money is more to a poor person than to a rich person.

- 4) **Miser** : In the case of a miser, every additional rupee gives him more and more satisfaction. Marginal utility of money tends to increase with an increase in his stock of money. However, this situation ignores the assumption of rationality.
- 5) **Addictions** : It is observed in case of a drunkard that the level of intoxication increases with every additional unit of liquor consumed. So MU received by drunkard may increase. Actually it is only an illusion. This condition is similar to almost all addictions. However, this violates the assumption of rationality.

Criticisms of the Law :

- 1) **Unrealistic assumptions** : The law of diminishing marginal utility is based upon various assumptions like homogeneity, continuity, constancy, rationality etc. but in reality it is difficult to fulfill all these conditions at a point of time.
- 2) **Cardinal measurement** : The law assumes that utility can be expressed cardinally so it can be added, compared and presented through a schedule. In reality cardinal measurement of utility is not possible because utility is a psychological concept.

- 3) **Indivisible goods** : The law is not applicable to indivisible and bulky goods like refrigerator, car, TV sets etc. which are normally purchased in single unit at a time.
- 4) **Constant marginal utility of money** : The law assumes that MU of each unit of money remains constant. However, critics argue that MU of money differs from person to person. It is influenced by changes in prices, stock of money etc.
- 5) **A single want** : The law is restricted to the satisfaction of a single want at a point of time. However, in reality, a man has to satisfy many wants at a point of time.

Thanks