

Topic: The Consumer: Utility

Senior Cycle Economics

How Consumers Make Decisions

- **The Consumer:** The individual who makes the decision to buy goods or services for their own personal use

Assumptions about Consumer Behaviour (SLIDER)

Assumption	Explanation
Satisfaction	<ul style="list-style-type: none"> • The consumer aims to get maximum Satisfaction from that income • A consumer will spend their limited income in such a way that they will achieve the most satisfaction from their money. He will obey the equi-marginal principle of consumer behavior.
Limited income	<ul style="list-style-type: none"> • The consumer has a Limited Income • The consumer's income is not large enough to satisfy their needs and wants, therefore the consumer must choose between those goods he wishes to buy.
Diminishing marginal utility	<ul style="list-style-type: none"> • The consumer is subject to the law of Diminishing marginal utility • As a consumer consumes additional units of a good their marginal utility for this good will eventually decline.
Economic goods	<ul style="list-style-type: none"> • The consumer will only spend his/her income on economic goods.
Rationally	<ul style="list-style-type: none"> • The consumer acts in that manner consistent with his preferences. If the person sees an identical commodity priced differently in two adjoining shops they will buy it at the lower price.

- The assumption of **rational decision-making** is flawed
 - For example, consumers are often more influenced by emotional purchasing decisions than a rational computation of net benefits

Utility

- Utility is the **satisfaction** gained from consumption
 - **Marginal utility** is the **additional utility (satisfaction)** gained from the consumption of an additional product
- The utility gained from consuming the first unit is usually higher than the utility gained from consuming the next unit
 - For example, a hungry consumer gains high utility from eating their first hamburger. They are still hungry and purchase a second hamburger but gain less satisfaction from eating it than they did from the first hamburger

Exam Question

Calculate the utility and marginal utility for good A and Good B

Quantity	Good A - £30		Good B £20	
	Total Utility	Marginal Utility	Total Utility	Marginal Utility
1	210	-	100	-
2	345		180	
3	465		240	
4	555		280	
5	615		300	
6	660		310	

The Law of Diminishing Marginal Utility

- The **Law of Diminishing Marginal Utility** states that as a consumer consumes additional units of a good the marginal utility/ extra satisfaction derived from each additional unit consumed will eventually decline
- The Law of Diminishing Marginal Utility helps to explain why the demand curve is **downward sloping**
 - When the first unit is purchased, the utility is high and consumers are willing to pay a high price
 - When subsequent units are purchased, each one offers less utility and the willingness of the consumer to pay the initial price decreases
 - Lowering the price makes it a more attractive proposition for the consumer to keep consuming additional units
 - *This is one reason why firms offer discounts such as '50% off the second item'*

Exam Question: 2009

(a) State the **Law of Diminishing Marginal Utility**: _____

(b) The table below illustrates the Law of Diminishing Marginal Utility.

Number of units consumed	1	2	3	4	5	6
Total Utility in units	30	65	85	100	110	115
Marginal Utility in units	30					

Complete the table and state the point after which diminishing utility sets in.

Assumptions under the Law of Diminishing Marginal Utility (TOOM)

Assumption	Explanation
Time lapse	<ul style="list-style-type: none"> Sufficient time has not lapsed between the consumption of successive units. If a person eats an orange on Monday, one on Thursday and one on Sunday, because of the time which has elapsed between the consumption of each extra orange, marginal utility may not diminish
It applies after a point of <u>origin</u>.	<ul style="list-style-type: none"> The origin is the minimum quantity of the commodity which can be used effectively and until this stage has been reached, marginal utility may not diminish
'Other factors' affecting utility do not change.	<ul style="list-style-type: none"> The law is based on the assumption that other factors, which may affect a consumer's utility, do not change, including income levels, the nature of successive units of the commodity, and the consumer's taste for the commodity
Addictive Goods & <u>Medicine</u>	<ul style="list-style-type: none"> It does not apply to addictive goods. The consumer may gain increasing marginal utility by consuming each additional unit of an addictive good

Consumer Equilibrium: Decision Making

- A rational consumer achieves **utility maximisation** when they spend their **limited income** in such a way that they will achieve the **most satisfaction from their money**
- When deciding at the margin, they weigh whether to **consume a little more or a little less** of something
 - This involves considering the **additional happiness or utility** gained from each **extra unit (marginal benefit)** and the **extra money spent (marginal cost)**
 - Consumers continue to consume until the **extra happiness from each unit equals the extra cost**, which is making decisions at the margin
- Every choice involves a balance between benefits and costs, taking into account each additional unit consumed
- A **consumer is in equilibrium** when they follow the **equi-marginal principal**. (i.e. they are maximising their utility, they are spending their income the best way possible)
- The Law of Equi-Marginal Returns** states that a consumer will enjoy maximum satisfaction when the ratio of MU to price is the same for all the different types of goods which he buys".

Question: Calculate Price of Good Z

$$\frac{MU_x}{P_x} = \frac{2500}{200} = \frac{MU_y}{P_y} = \frac{1250}{100} = \frac{MU_z}{P_z} = \frac{75}{?}$$

Question: Why would consumer be willing to pay this price for Good Z?

Exam Question: 2019 Q1

- (a) Explain the economic concept of the Equi-Marginal Principle of consumer behaviour.

- (b) In equilibrium, a consumer buys 6 apples at €0.90 each and 7 oranges at €0.50 each.

The marginal utility of the 6th apple is 9 utils.

Calculate the marginal utility of the 7th orange.

(Show your workings.)

Workings:
Answer:

Exam Question: 2015 Q2

- (a) Explain the concept of the Equi-Marginal Principle of Consumer Behaviour.

- (b) In equilibrium, a consumer buys 5 bottles of water at €2.50 each and 8 bagels at €3 each.

The marginal utility of the 5th bottle of water is 5 utils.

Calculate the marginal utility of the 8th bagel.
(Show your workings.)

Workings:
Answer:

Exam Question 2023 Q3

- (a) Complete the missing total utility and marginal utility figures in the table below. Show your workings.

Number of units consumed	1	2	3	4
Total Utility in Units/Utils	40	80		137
Marginal Utility in Units/Utils	40		35	

Workings:

Answer (b) or (c)

- (b) Based upon the marginal utility figures calculated above, at what point does the law of diminishing marginal utility set in? Explain your answer.

Answer:
Explanation:

OR

- (c) Does the formula below obey the Equi-Marginal Principle of consumer behaviour? Explain your answer.

$$\frac{MU_x}{P_x} = \frac{1800}{10} \text{ and } \frac{MU_y}{P_y} = \frac{3600}{10}$$

Answer:
Explanation:

