Consumer Behaviour

Reference

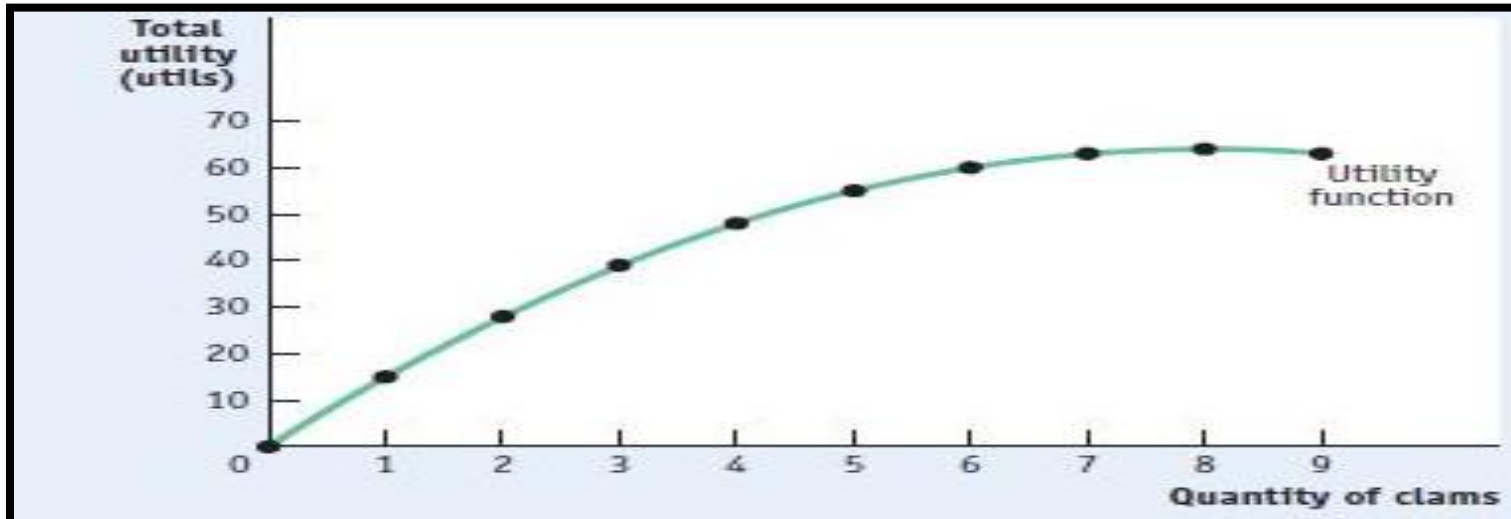
- **The Rational Consumer – Krugman and Wells**

  Chapter 10

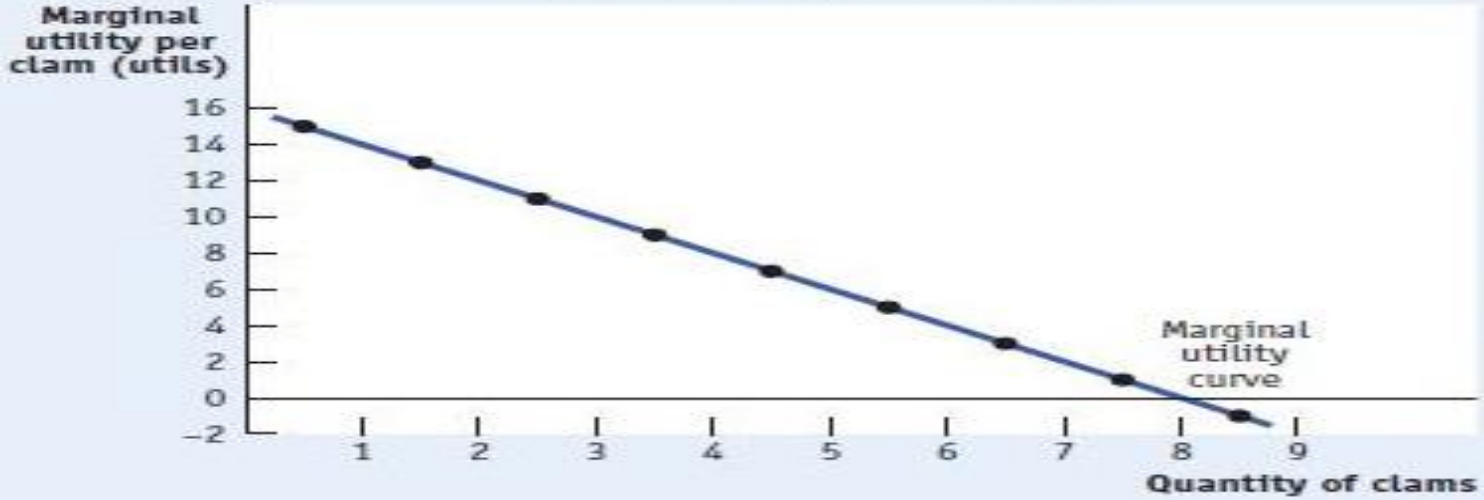
- **Consumer Choice – Roger Arnold**

  Chapter 7

- A **rational consumer** - a consumer who knows what he or she wants and makes the most of the available opportunities.
- The **utility** of a consumer is a **measure** of the **satisfaction** the consumer derives from **consumption** of goods/services.
- A **util** is a unit of utility.
- An individual's **consumption bundle** is the collection of **all** the goods/services consumed by that individual.
- The **utility function** gives the total utility generated by an individual's consumption bundle



(b) Cassie's Marginal Utility Curve



Quantity of clams	Total utility (utils)	Marginal utility per clam (utils)
0	0	
		15
1	15	
		13
2	28	
		11
3	39	
		9
4	48	
		7
5	55	
		5
6	60	
		3
7	63	
		1
8	64	
		−1
9	63	

Panel (a) shows how Cassie's total utility depends on her consumption of fried clams. It increases until it reaches its maximum utility level of 64 utils at 8 clams consumed and decreases after that. Marginal utility is calculated in the table. Panel (b) shows the marginal utility curve, which slopes downward due to diminishing marginal utility. That is, each additional clam gives Cassie less additional utility than the previous clam.

Not all marginal utility (MU) curves eventually become negative. But generally MU curves slope downward → *diminishing marginal utility.*

- When you choose how much to consume → consider the ***change*** in the **total utility** from consuming **one more unit** of a good.
- **MU = change in total utility from consuming one more unit of a good/service.**
- **Principle (law) of diminishing MU =** each additional unit of a good/service consumed **adds less** to total utility than the previous unit.

Budgets and Optimal Consumption

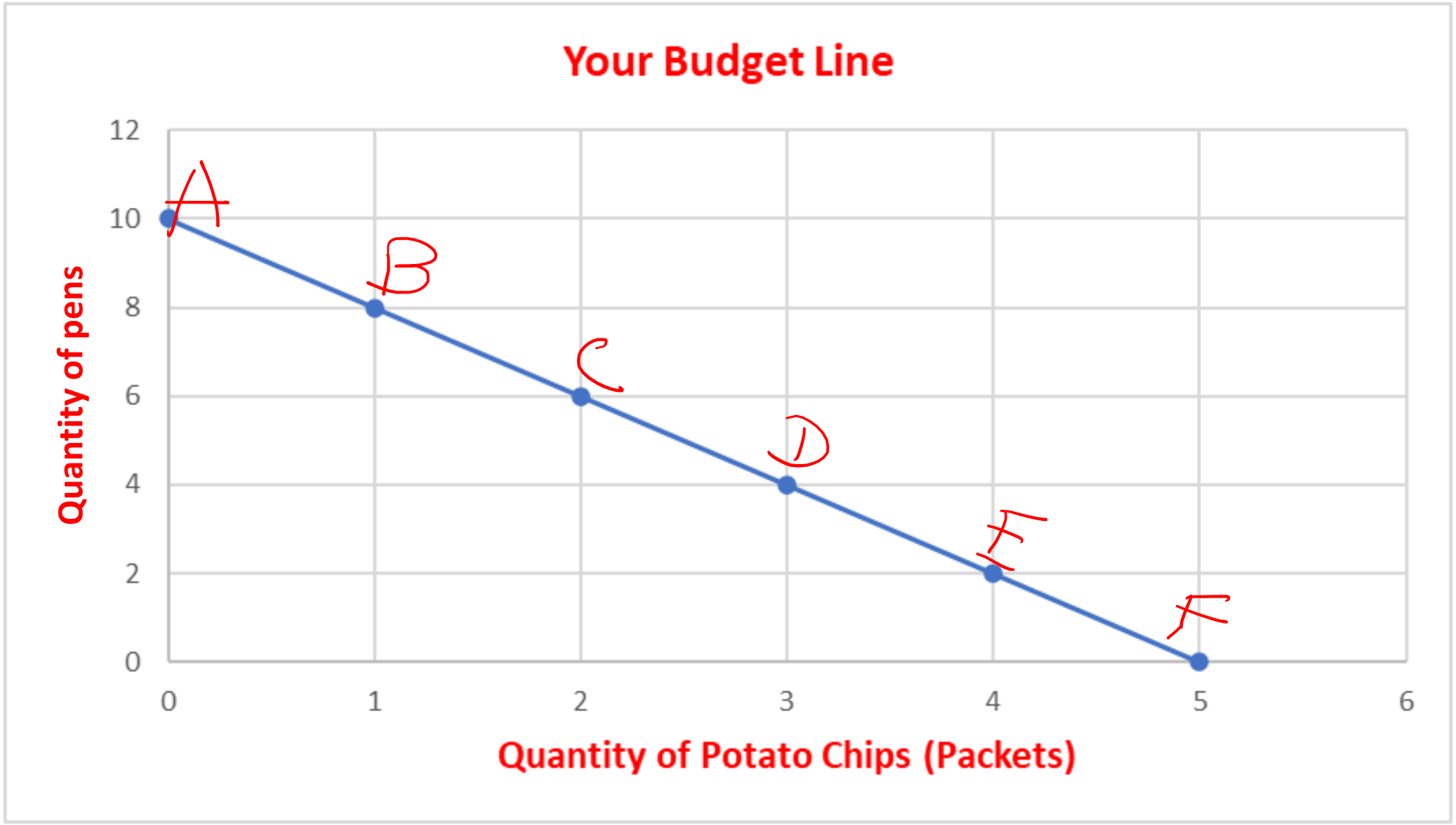
- Income/budget = **limited**
- A decision to consume **more of one good** → consume **less of some other good**.
- **Given,**
- Weekly income of **20 taka**
- You consume two goods, potato chips and pens.
- Per packet of potato chips = **4 taka** and per pen = **2 taka.**
- ***What are your possible choices?***

Budget constraint

Expenditure on potato chips + Expenditure on pens ≤ Total income

- **Consumption possibilities** = the set of all consumption bundles that can be consumed **given the consumer's income and prevailing prices**.

Consumption Bundle	Quantity of Potato Chips (packets)	Quantity of Pens
A	0	10
B	1	8
C	2	6
D	3	4
E	4	2
F	5	0


Your Budget Line
Quantity of pens
12
10
8
6
4
2
0
A
B
C
D
E
F
0
1
2
3
4
5
6
Quantity of Potato Chips (Packets)

- The **budget line** shows the consumption bundles available to a consumer who spends **all** of his/her income.
- Every bundle **on or inside = affordable**
- Every bundle **outside = unaffordable**.
- Why is it downward sloping? Opportunity cost! – Why?

Optimal Consumption Choice

- Given your 20 taka per week budget, which point on the budget line will you choose?
- We want to find the consumption bundle—the point on the budget line—that **maximizes** our **total utility**.
- **Optimal consumption bundle** = the consumption bundle that **maximizes the total utility given the budget constraint.**

Utility from Potato Chips Consumption	
Quantity of Potato Chips	Utility from Potato Chips (Utils)
0	0
1	15
2	25
3	31
4	34
5	36

Utility from Pen Consumption	
Quantity of Pens	Utility from Pens (Utils)
0	0
1	11.5
2	21.4
3	29.8
4	36.8
5	42.5
6	47.0
7	50.5
8	53.2
9	55.2
10	56.7

Consumption Bundle	Q of Potato Chips (packets)	Utility from Potato Chips (utils)	Q of Pens	Utility from Pens (utils)	Total Utility
A	0	0	10	56.7	56.7
B	1	15	8	53.2	68.2
C	2	25	6	47.0	72.0
D	3	31	4	36.8	67.8
E	4	34	2	21.4	55.4
F	5	36	0	0	36.0

Spending the Marginal Dollar

- Finding the optimal consumption choice = a **"how much"** problem.
- ***How much to spend on each good.***
- The **marginal decision** is a question of how to ***spend the marginal dollar/taka.***

- **Calculate the marginal utility per dollar spent on either** potato chips or pens - how much additional utility you get from spending an additional dollar on either good.
- *The **marginal utility per dollar/taka** spent on a good or service is the additional utility from spending one more dollar/taka on that good or service*.

- In general, the additional utility generated from an additional dollar spent on a good is equal to:

Marginal utility per dollar spent on a good = Marginal utility of one unit of the good/Price of one unit of the good

$$= MU_{Good} / P_{Good}$$

- The **utility-maximizing principle of marginal analysis (Equi-Marginal Principle): = Consumer Equilibrium**

The marginal utility per dollar spent must be the same for all goods and services in the optimal consumption bundle.

- **That is, at the optimal consumption bundle,**

$$MU_{GoodA} / P_{GoodA} = MU_{GoodB} / P_{GoodB}$$

- The consumption bundle has 10 apples and 10 oranges.
- $MU_{oranges}$ = 28 utils
- $P_{oranges}$ = 1 taka
- MU_{apples} = 20 utils
- P_{apples} = 1 taka
- Is the consumer at equilibrium?

- The consumption bundle has 9 apples and 11 oranges.
- $MU_{oranges}$ = 25 utils
- $P_{oranges}$ = 1 taka
- MU_{apples} = 25 utils
- P_{apples} = 1 taka
- Is the consumer at equilibrium?

- Due to **diminishing MU, MU** of a good **falls** as the **quantity** of that good consumed **rises**
- **Hence, MU per dollar spent** on that good **also falls** as the **quantity** of the good consumed **rises**.
- ***MU per dollar spent on each good declines as the quantity of that good consumed rises, because of diminishing MU*.**

- If your MU per dollar spent on one good is LOWER than the MU per dollar spent on the other → **spend $1 less on the first good and $1 more on the other good.**

Consumer Equilibrium and the Law of Demand

- Is the equi-marginal principle consistent with the law of demand?
- What happens if the price of a good changes, ceteris paribus?