



Theory of Consumer Choice: Cardinal Approach



What will you learn from this topic?

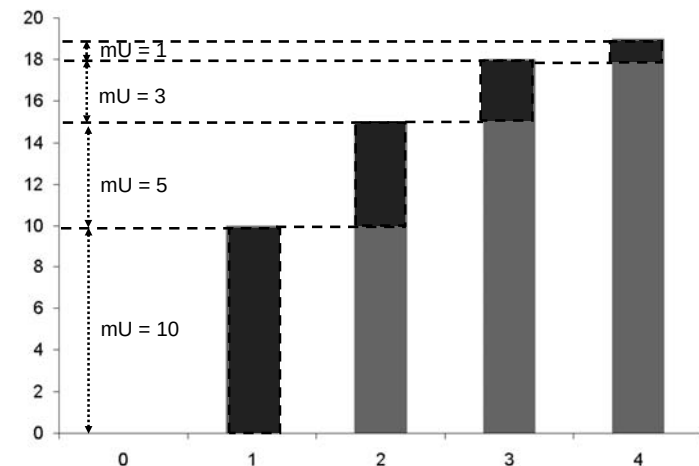
- How consumers choose to spend their income on goods and services
- Why consumers make choices by maximizing **utility**, a measure of satisfaction from consumption
- Why the **principle of diminishing marginal utility** applies to the consumption of most goods and services
- How to use marginal analysis to find the **optimal consumption bundle**
- What **income** and **substitution effects** are

The Utility function

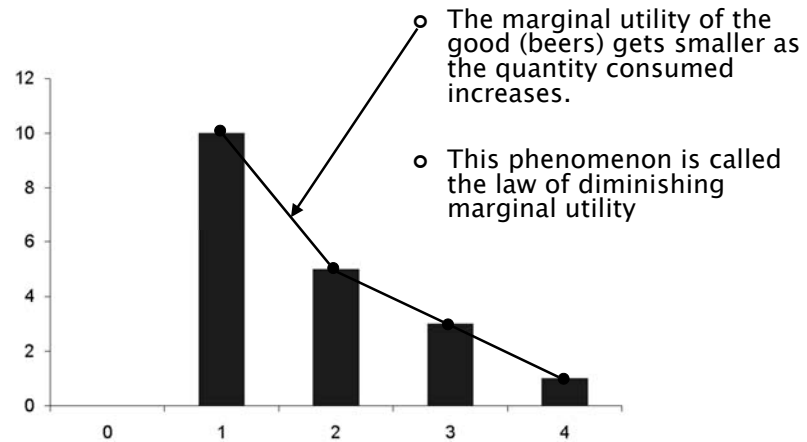
- *Cardinal* utility assigns a value to the level of satisfaction associated with the consumption of a basket of goods.
- *Total* utility is the sum of the satisfactions derived from the consumption of several goods.
- *Marginal* utility is the increase in utility following the consumption of an extra unit of a good.

Beers consumed	Total Utility	Marginal Utility
0	0	0
1	10	10
2	15	5
3	18	3
4	19	1

The Utility function



The Utility function



Is Marginal Utility Really Diminishing?

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Income = 9 baht

DECISION MAKING PROCESS

$P_X = 2 \text{ Baht/Unit}$			$P_Y = 1 \text{ Baht/Unit}$		
Units of X	MU_X	MU_X/P_X	Units of Y	MU_Y	MU_Y/P_Y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Compare the Value of MU of 1st Unit of X & 1st Unit of Y

$P_X = 2$			$P_Y = 1$		
Units of X	MU_X	MU_X/P_X	Units of Y	MU_Y	MU_Y/P_Y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

SinceUtils/Baht Utils/Baht, The consumer buys

Total Quantity:

TU:.....

Paid:

Money Left:.....

Compare the Value of MU of 1st unit of X & 2nd unit of Y

$P_X = 2$			$P_Y = 1$		
Units of X	MU_X	MU_X/P_X	Units of Y	MU_Y	MU_Y/P_Y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Since Utils/Baht5 Utils/Baht, The consumer buys

Total Quantity:

TU:

Paid:

Money Left:

Compare the Value of MU of 1st unit of X & 3rd unit of Y

P _x = 2			P _y = 1		
Units of X	MU _x	MU _x /P _x	Units of Y	MU _y	MU _y /P _y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Since ... Utils/Baht Utils/Baht, The consumer buys

Total Quantity:

TU:

Paid:

Money Left:

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Compare the Value of MU of 1st Unit of X & 4th Unit of Y

P _x = 2			P _y = 1		
Units of X	MU _x	MU _x /P _x	Units of Y	MU _y	MU _y /P _y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Since Utils/Baht Utils/Baht, The consumer buys

Total Quantity:

TU:

Paid:

Money Left:

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Compare the Value of MU of 2nd Unit of X & 5th Unit of Y

P _x = 2			P _y = 1		
Units of X	MU _x	MU _x /P _x	Units of Y	MU _y	MU _y /P _y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Since Utils/Baht Utils/Baht, The consumer buys

Total Quantity:

TU:

Paid:

Money Left:

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INFERIOR OPTIONS

Will the Consumer have The Maximum Utility by Consuming 3 Units of X (6 Baht) and 3 Units of Y (3 Baht) That Cost 9 Baht?

P _x = 2			P _y = 1		
Units of X	MU _x	MU _x /P _x	Units of Y	MU _y	MU _y /P _y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

Total U Obtained by Consuming 3 Units of X:

.....

Total U Obtained by Consuming 3 Units of Y:

.....

Total U Obtained by Consuming 3 Units of X and 3 Units of Y:

.....

.....

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Could the Consumer Consumes 3 Units of X & 6 Units of Y?

$P_x = 2$			$P_y = 1$		
Units of X	MU_x	MU_x/P_x	Units of Y	MU_y	MU_y/P_y
1	10	5	1	8	8
2	8	4	2	7	7
3	6	3	3	6	6
4	4	2	4	5	5
5	3	1.5	5	4	4
6	2	1	6	3	3

The cost of 3 Units of X = Baht

The Cost of 6 Units of Y = Baht

Total Cost =

Rational Spending Rule