

THEORY OF CONSUMER CHOICE

3 QUESTIONS

- ① WHAT A CONSUMER WANTS FROM BUYING GOODS AND SERVICES ? } TASTES OR PREFERENCES
- ② WHAT THE CONSUMER COULD AFFORD ?
- ③ GIVEN ① AND ②, HOW SHOULD A RATIONAL CONSUMER OPTIMALLY CHOOSE ?
↓
CHOOSE FROM BEST AVAILABLE CHOICES (AFFORDABLE)

TOTAL UTILITY (TU) : SATISFACTION A CONSUMER GETS FROM A BASKET OF GOODS AND SERVICES

MARGINAL UTILITY (MU): $MU = \frac{\Delta TV}{\Delta Q}$

≡ EXTRA,
INCREMENTAL
ADDITIONAL

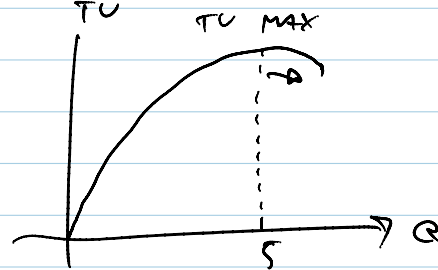
CHANGE IN TOTAL UTILITY
WHEN A CONSUMER CONSUMES
AN ADDITIONAL UNIT OF GOOD

CNV (UTELS)

Q PERST	TU	MU
---------	----	----

# (MU) (UTILS)		
Q PER SE	TU	MU
0	0	
1	100	+100
2	180	+80
3	240	+60
4	260	+20
5	260	0
6	220	-20

① AS $Q \uparrow \rightarrow TU \uparrow \rightarrow \text{MAX} \rightarrow \downarrow$



② MARGINAL UTILITY IS DIMINISHING AS CONSUMPTION RISES

LAW OF DIMINISHING UTILITY

AS THE CONSUMER CONSUMES MORE AND MORE UNITS OF GOOD OR SERVICE, MARGINAL UTILITY IS DIMINISHING.

OBJECTIVE OF : MAXIMIZE UTILITY OR SATISFACTION.

A RATIONAL HE HAS
CONSUMER A WELL-DEFINED GOAL.

SUBJECT TO : BUDGET CONSTRAINT.

MATHEMATICALLY,



MATHEMATICALLY,

$$\text{MAXIMIZE } U(X, Y)$$

$$\text{SUBJECT TO } \underbrace{P_X X}_{\substack{\text{EXPENDITURE} \\ \text{TOWARD} \\ \text{BUYING} \\ X}} + \underbrace{P_Y Y}_{\substack{\text{EXPENDITURE} \\ \text{TOWARD} \\ \text{BUYING} \\ Y}} \leq \underbrace{M}_{\text{INCOME}}$$

TOTAL EXPENDITURES

OPTIMAL CHOICE

THE CONSUMER CANNOT SPEND MORE THAN HIS OR HER INCOME

(X^*, Y^*) $\xrightarrow{\text{MRS}} U$

$\xrightarrow{\text{MAX}} U$

RATIONAL SPENDING RULE

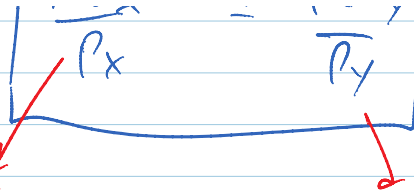
(OR GOLDEN RULE OF UTILITY MAXIMIZATION)

"IF A CONSUMER WERE TO MAXIMIZE HIS UTILITY GIVEN A BUDGET CONSTRAINT, HE SHOULD SPEND SUCH THAT MARGINAL UTILITY PER DOLLAR FROM ALL GOODS ARE EQUAL."

For 2 goods:

$$\frac{MU_X}{P_X} = \frac{MU_Y}{P_Y}$$

MU $<$ MU



ADDITIONAL
UTILITY
PER UNIT
OBTAINED
FROM X

ADDITIONAL
UTILITY
PER UNIT
OBTAINED
FROM Y

FOR n goods:

$$\frac{MU_x}{P_x} = \frac{MU_{x_2}}{P_{x_2}} = \dots = \frac{MU_{x_n}}{P_{x_n}}$$

WHEN $\frac{MU_x}{P_x} < \frac{MU_y}{P_y} \rightarrow$ THE CONSUMER COULD
GAIN HIGHER SATISFACTION
FROM NOTING REALLOCATION
OF HIS PURCHASE
BY BUYING MORE OF Y
AND LESS OF X.

ABOVE APPROACH IS CALLED "CARDINAL APPROACH"

ASSUMPTION { UTILITY IS
MEASURABLE AS "UTILS"

~ JEREMY BENTHAM ~
↓ UTILITARIANISM

THIS ASSUMPTION
IS QUITE RESTRICTIVE.

NOW, WE MOVE TO STUDY A MORE
REALISTIC APPROACH SO CALLED

OR ORDINAL APPROACH

IT REQUIRES ONLY THAT "THE CONSUMER
IS ABLE TO RANK HIS PREFERENCES"

① PREFERENCES OR TASTES

② BUDGET CONSTRAINT

③ GIVEN ① AND ②, UTILITY MAXIMIZATION.

①

PREFERENCES

ASSUMPTIONS ABOUT CONSUMER'S PREFERENCES

① HE IS ABLE TO RANK HIS PREFERENCES

EX:

GIVEN $\textcircled{X}$ AND $\textcircled{Y}$
↑ ↑
BASKET BASKET

}

3 POSSIBLE CHOICES

① $X \begin{array}{|c} \text{IS} \\ \text{PREFERRED} \end{array} Y \Leftrightarrow U(X) > U(Y)$

② $Y \begin{array}{|c} \text{IS} \\ \text{PREFERRED} \end{array} X \Leftrightarrow U(Y) > U(X)$

