Consumers Behavior

1) They are RATIONAL (utility maximizing)

2) They have unambiguous preference
(not necessarily permanent, but unrealistically precise)

3) They have a budget constraint

4) They buy at a known market price.

We have a complicated set of choices that we care about and addresses rationally based on the comparison of prices and utility.

The rule for utility maximization is as follows:

> Utility is maximized if the last dollar spent on each good buys you the same amount of utility.

$$\frac{MU_a}{P_a} = \frac{MU_b}{P_b} = \frac{MU_c}{P_c}$$

The problem:

- Multiple goods
- With diminishing marginal utility
- And constant prices

The solution:

Buy according to a process: Always by the item with the highest marginal utility per dollar.

Algebraically:

$$\frac{\text{MU of Product A}}{\text{Price A}} \quad \underset{<,=,>}{?} \quad \frac{\text{MU of Product B}}{\text{Price B}}$$

Buy the product with the greater ratio.

You are indifferent when the two ratios are the same.

You have allocated perfectly when all such ratios are equal.

This model's view of substitution

You are buying pencils and pens.

At the margin bought, your analysis was is as follows:

Last pencil MU 120, cost 10 cents
MU/$ = 1200

Last pen MU 600, cost 50 cents
MU/$ = 1200

But suddenly the price of pencils goes up to 12 cents:

:MU/$ = 1000

:You now buy a pens instead of pencils at the margin

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This model does help us look at substitution effect and substitute goods:

Let's say:

$$\frac{MU_a}{P_a} = \frac{MU_b}{P_b}$$

and then

$$\frac{MU_a}{\uparrow P_a} \quad \text{so?} \qquad \frac{MU_b}{P_b}$$

So, price of a good goes up you buy less.
Helping to make the demand curve go down.

And the income effect:

Lower prices => each unit of the item bought is cheaper =>
the marginal analysis goes farther down the list before it hits budget => you buy more.

Higher prices => each unit of a bought is more expensive =>
the marginal analysis goes less far down the list before it hits budget => you buy less.

Attachments

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