

CH 3 - Preference

Luke Lu • 2026-02-11

Consumer Preference Model



Info — Consumer Preference Model

- Model of what and how much consumers purchase
- Model of a choice between alternative

Effect on the model

- Price
- Preference
 - Weak axiom of revealed preference: if choosing between A , B , if one of the two becomes unavailable. The remaining choice must contain A to remain a rational choice.
- Income/Budget

Info – Budget

1. Equation

- M = income
- p_i = price for product i
- q_i = quantity for product i

$$M = p_1 q_1 + p_2 q_2$$

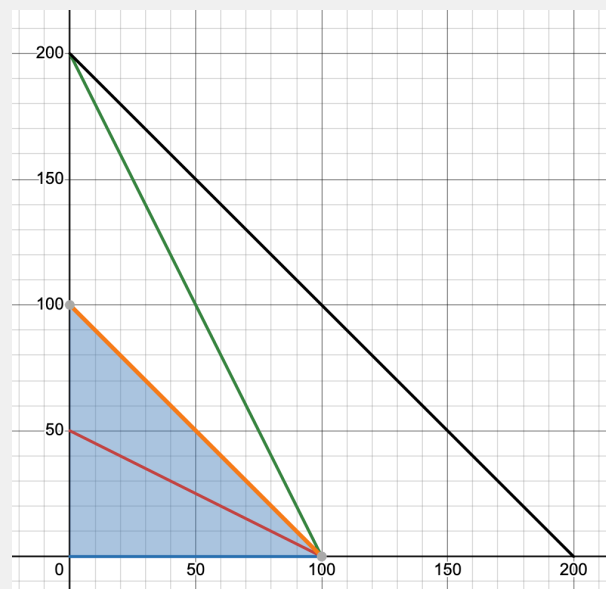
→ M is the amount of money allocated for this specific decision

Note that the goal is to gain the most amount of happiness from the given budget.

Example allocation:

- Salary
 - Spending
 - Shopping
 - Saving

2. Graph



Area below the curve is the Inefficient distribution of budget.

On the line suggests the optimal distribution of budget.

The slope $\frac{p_2}{p_1}$: good 2 costs $\frac{p_2}{p_1}$ good 1 \Rightarrow opportunity costs

Orange: original line

Green: p_2 decreases

Red: p_2 increases

Black: M increases

Info – Preferences

Preference often/always intangible and non-numeric.

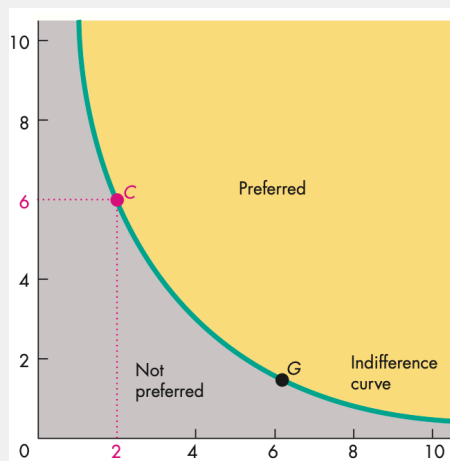
Force intangible to have inherent structure like numbers

“Happiness” is equivalent “Utility”

An assumption is that of diminishing marginal utility, but still positive.

Due to the continuously diminishing marginal utility (continuously diminishing rate of trade), the curve will not be linear like the budget(constant rate of trade).

Graph



- Every point above the curve is better, more utility: (i.e. yellow area)
- Every point below the curve is worse, less utility: (i.e. grey area)
- Every point on the curve is equivalent to marginal utility
- The green curve is also called **Indifference Curve**

Info – Utility length

The area enclosed by the utility curve and the budget curve. (i.e. red area)

There always exists another parallel utility curve that is better than the previous one.

