Chapter 3
Preferences.

Consumer behavior is very simple: People choose the 'best things' they 'can afford'.

This chapter'll deal with the 'best things' part.

The concept of consumption bundle.

We call the objects of consumer choice, consumption bundle. It is a complete list of goods and services that are involved in the choice problem.

By 'complete' we mean when you analyse consumer's choice problem, make sure that we include all the appropriate goods in the defn of the consumption bundles which also includes the description of when, where & under what circumstances they're available.

Also we can just use the concept of one axis representing one particular good and other axis representing all other goods. In this way we can consider the cons choice involving many goods and still use 2 dimensional diagrams for analysis.

A consumption bundle is usually represented as (x_1, x_2) or simply X.

Consumer preferences - types

Strict preferences:- we use $>$ symbol to mean that one bundle is strictly preferred to another i.e.

$$\boxed{(x_1, x_2) > (y_1, y_2)}$$

Also can be written $X > Y$.

Here the consumer strictly prefers the first bundle to second in the sense the cons definitely wants the X over Y bundle every time given the opportunity.

(ii) weak preferences - we use '$\succsim$' to denote the same

i.e $\boxed{(x_1, x_2) \succsim (y_1, y_2)}$

i.e $X \succsim Y$.

Indifference - we use '$\sim$' symbol to mean that the cons is indiff b/w the 2 bundles

The consumer is just as satisfied as consuming the first bundle as consuming the second bundle.

$$\boxed{(x_1, x_2) \sim (y_1, y_2)}$$

$$X \sim Y$$

These relations are not independent of each other. They're very much related to each other. How?

eq¹ If $(x_1, x_2) \succeq (y_1, y_2)$ and $(y_1, y_2) \succeq (x_1, x_2)$, then

$$(x_1, x_2) \sim (y_1, y_2).$$

i.e. If the consumer thinks that (x_1, x_2) is atleast as good as (y_1, y_2) & (y_1, y_2) is atleast as good as (x_1, x_2). Then the consumer must be indiff b/w the 2 bundles.

eq² Also if $(x_1, x_2) \succeq (y_1, y_2)$ and $(x_1, x_2) \not\sim (y_1, y_2)$, then $(x_1, x_2) \succ (y_1, y_2)$.

ie If the consumer thinks that (x_1, x_2) is atleast as good as (y_1, y_2) and is not indiff b/w 2 bundles, then it must be that the consumer thinks (x_1, x_2) is strictly better than (y_1, y_2).

Assumptions about preferences.

» Reflexive = We assume that any bundle is atleast as good as itself.

ie $(x_1, x_2) \succeq (x_1, x_2)$

This axiom is hardly objectionable, at least for the kind of choices economists generally examine. To say that any 2 bundles can be compared is simply to say that the consumer is able to make a choice b/w any 2 given bundles.

explanation of the assm - 'complete'

The axiom - reflexivity is trivial as any bundle is certainly at least as good as an identical bundle.

>> Complete

we assume that any 2 bundles can be compared

ie $(x_1, x_2) \geq (y_1, y_2)$ or $(y_1, y_2) \geq (x_1, x_2)$ or both in which case its indifference

>> Transitivity

If $(x_1, x_2) \geq (y_1, y_2)$ and $(y_1, y_2) \geq (z_1, z_2)$ then we assume that $(x_1, x_2) \geq (z_1, z_2)$.

This axiom is a bit complicated in the sense it isnt clear that transitivity of preferences is necessarily a property that preferences would have to have. The assumption cant be pure logic. It is a hypothesis about people's choice behaviour, not a statement of pure logic.

If we are to have a theory where people are making "best" choices, preferences must satisfy the transitivity axiom or something like the same. If preference were not transitive, there could well be a set of bundles for which there is no best choice.

Note: Slope of IC is MRS_{xy} — Refer Micro Sem 1.

classmate
Date
Page

Monotonicity implies IC -ve slope is ↓ (pg 45)

>> Monotonicity.

$(x_1 + \varepsilon_1, x_2) > (x_1, x_2)$

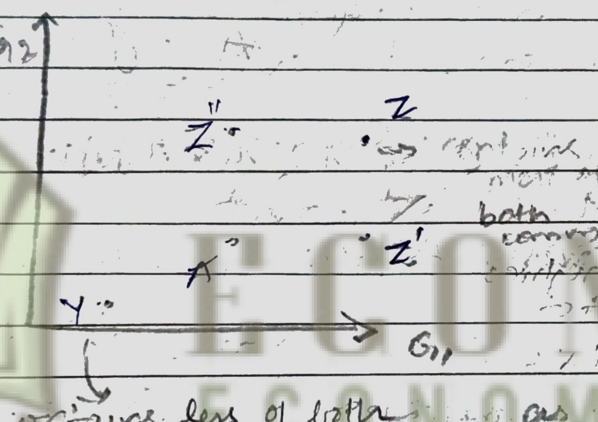
$\varepsilon_1 > 0$ i.e. consumption of more goods means more welfare & total utility is max

$(x_1, x_2 + \varepsilon_2) > (x_1, x_2)$

$\varepsilon_2 > 0$

Note: we know, goods – more is pref to less; bads – less is pref to more

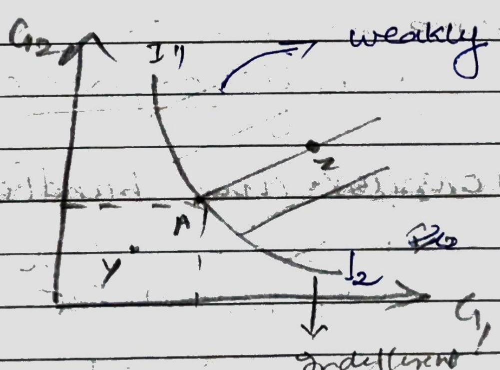
Note: Book uses x_1, x_2 as axis & units of goods. So we will use G_1, G_2 as axis.



Y: consume less of both comm compared to A

∴ A is as good as Y but not other way round.

Find $Z \succsim A$



One limitation of using ICs is that they only show you the bundles that the consumer perceives as being indiff to each other — they don't show you which bundles are better & which bundles are worse.

Set of indifferent bundle & pref area are mutually exclusive

Set B : $\{ z : z \succ A \}$ — shaded above.

set C : $\{ y : y \sim A \}$

↳ indifferent
all the bundles give the same level of satisfaction as A.

100 $S_1 \cap S_n = \emptyset$ $B \cup C : \{ x : x \succsim A \}$.

2 ICs never cross : Refer to Sem 1 micro notes for the proof.

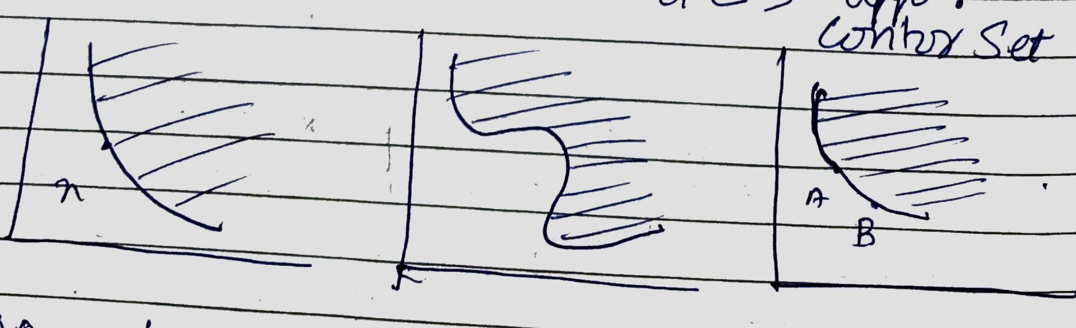
~~Examples of Preferences~~

~~Before proceedings~~

Assn 5

→ **Convexity of preferences**

Consider any bundle x (x_1, x_2)
Set of BA AG_x (UCS_x) is a convex set. UCS - Upper contour set.



AB — straight line — convexity doesn't rule out the straight line part

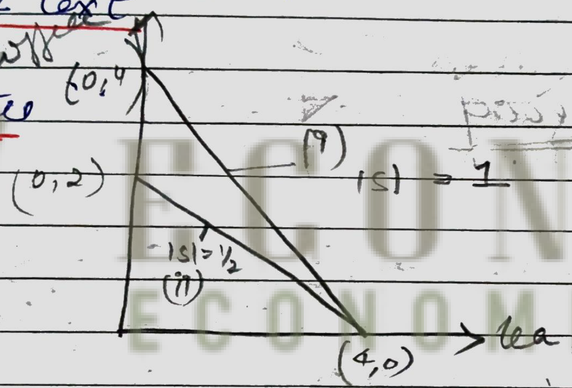
Q) Under what assn, straight line will be ruled out?

- Under strictly convex set, the straight line will be ruled out.

Types of preferences :

For the very 'detailed' explanation of the shapes read the text.

Substitutes



tea and coffee

(i) 1:1

(t, c)

(2,0)

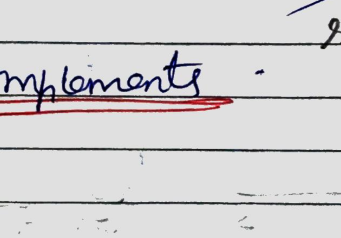
(1,1)

(0,2)

|S| = 1

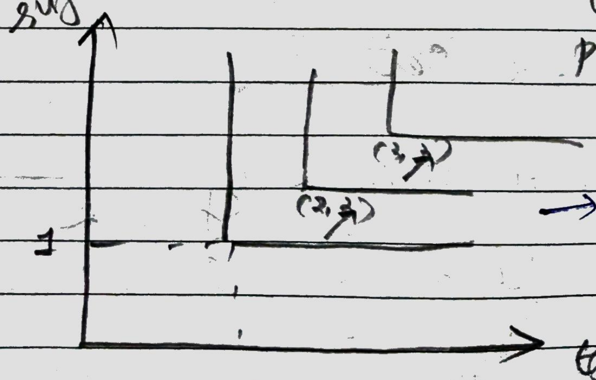
(ii) 2:1 |S| = 1/2 (4,0) (0,2) (1,2)

The case with slope 1 is called as perfect substitutes.



← Indifference Map

Complements .



t : s - 1 : 1

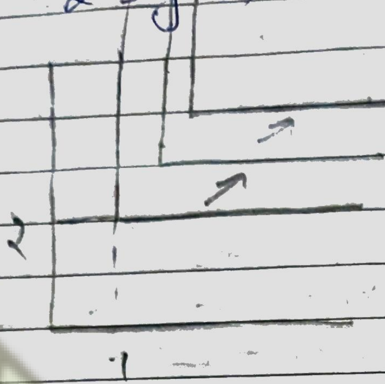
perf comp

→ case of perfect complements

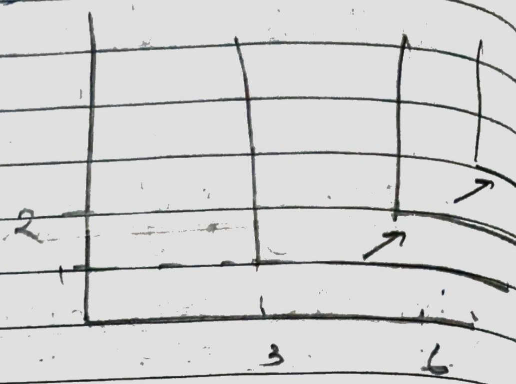
Note: For Nuetral & bad ...
a good expl.

Other cases of complements.

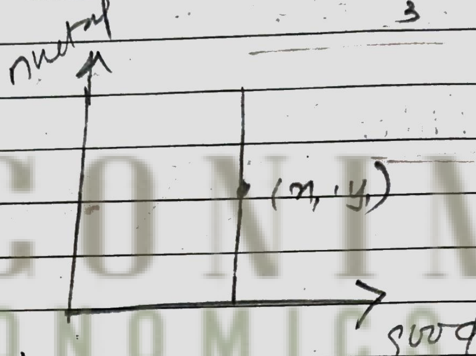
(ii) 1 tea : 2 sugars



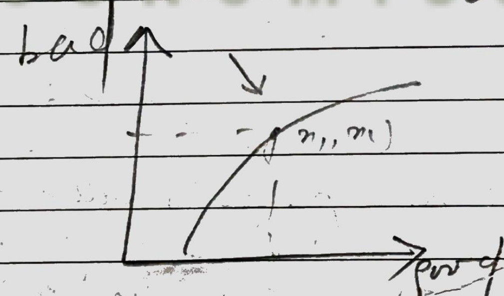
(iii) 3:1 tea : sugar.



Nuetral good



Bad good



It'll be ↑ sloping
can be convex, concave or
straight line depending on the situation.

Convex Sets.

Set A is convex iff R ——— S all point on RS $\in A$.

i.e. $\lambda R + (1-\lambda) S$ where $\lambda \in [0,1]$.

. Set A is convex iff $\forall\ x, y \in A$,
$\theta x + (1-\theta) y \in A$ $\theta \in [0,1]$.

Set B is said to be strictly convex

Discrete goods, well behaved pref, MRS and its interpretation — read text.

Date
Page

Satiation :

It is where there is some bundle which is overall best bundle and the closer he is to that best bundle, the better off.

Let say that (x_1, x_2) is a satiation point or a bliss point. The IC for the consumer look like those depicted in the fig. The best pt is $(\bar{x}_1, \bar{x}_2)$ and points farther away from this bliss point lie on lower ICs.

Note that the ICs have a -ve slope when the consumer has "too little" or too many" of both goods and a +ve slope when he has "too much" of one of the goods. When he has too much of one of the goods, it becomes a bad — reducing the cons of which moves him closer to his "bliss pt".