

Consumption Bundles and Preferences

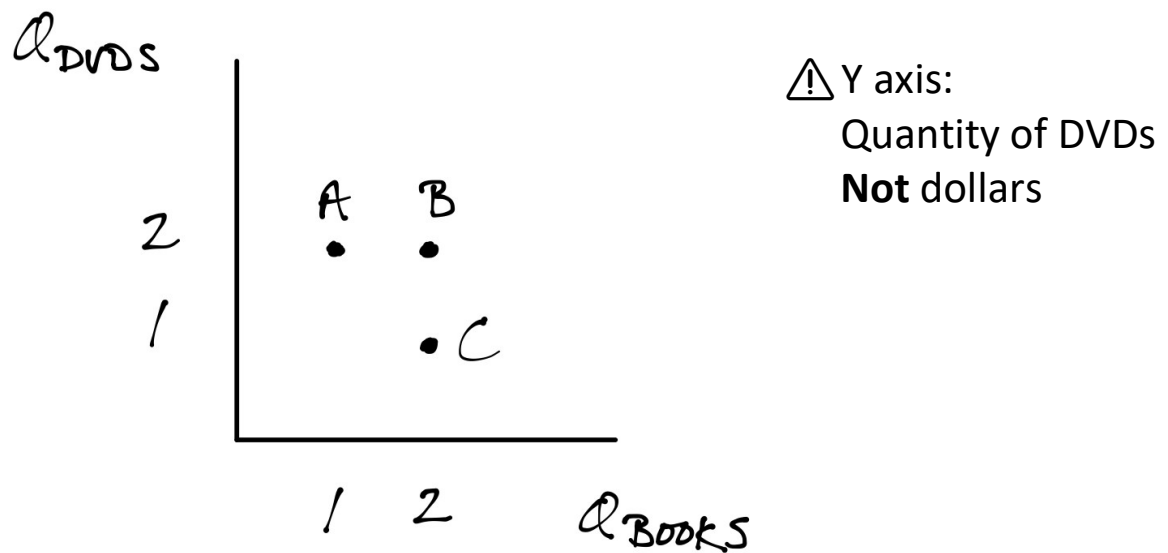
Bundles:

A bundle is a combination of goods

Examples:

Bundle	Books	DVDs
A	1	2
B	2	2
C	2	1

Graphing:



Preferences:

Decision makers have preferences over bundles

Notation:

Ranking of bundles X and Y	Notation	Alternate
Prefers X to Y	$X \succ Y$	$Y \prec X$
Prefers Y to X	$Y \succ X$	$X \prec Y$
Indifferent between X and Y	$X \sim Y$	$Y \sim X$

Will also use $X \succcurlyeq Y$ when X is **at least as good** as Y

Aside: Why a curly symbol?

Used to distinguish between:

1. *ranking of the whole bundle* (\succ)
2. *amounts of individual goods* within it ($>$).

Two axioms about preferences:

1. Completeness

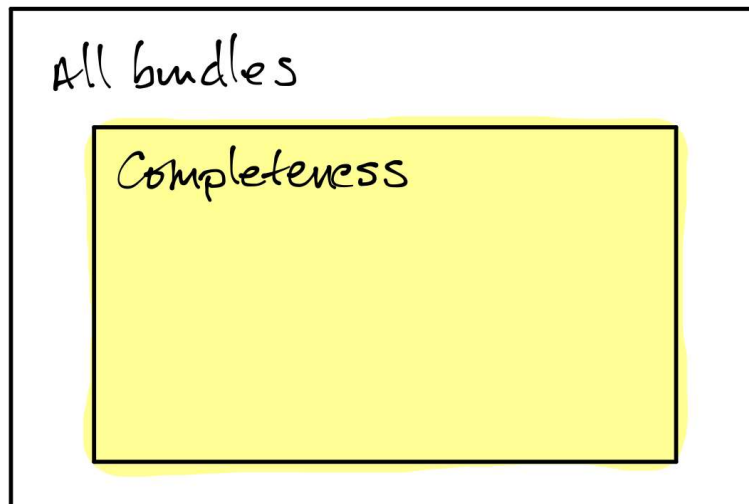
Preferences are *complete* if any two bundles can be compared.

If offered X and Y, decision maker will say:

X is better	$X \succ Y$
Y is better	$Y \succ X$
X and Y are equally good	$X \sim Y$

What's left out?

Conceptually, axiom limits the domain of the model:



Purpose:

Can't model choice if the decision maker can't choose

2. Transitivity

Preferences are *transitive* if the following is true when ranking any three bundles X , Y and Z :

If decision maker reports: $X \succsim Y$ and $Y \succsim Z$

Then they *also* report: $X \succsim Z$

Person does **not** say $Z \succsim X$

Special cases:

If $X \succ Y$ and $Y \succ Z$ Then $X \succ Z$ (Not $Z \succ X$)

If $X \sim Y$ and $Y \sim Z$ Then $X \sim Z$ (Not $X \succ Z$ or $Z \succ X$)

Implication:

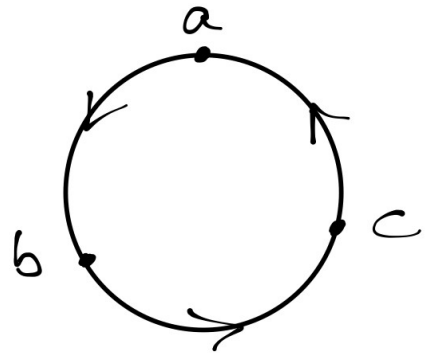
- Bundles can be put in unambiguous order
- No loops in the ranking

Transitive



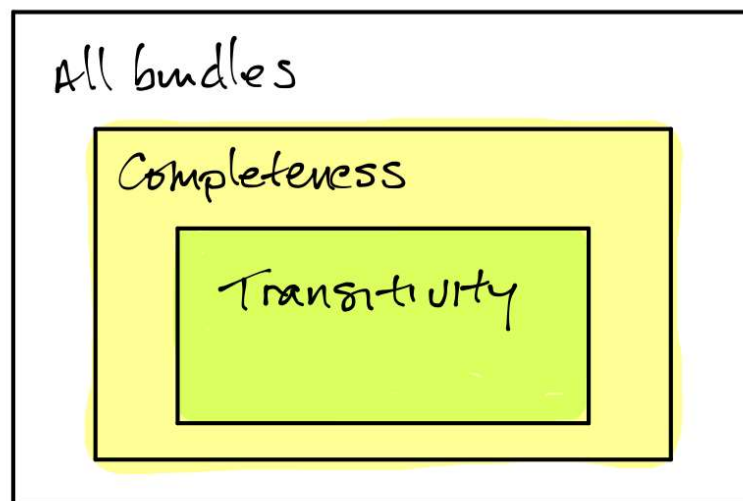
$a > b > c \sim d > e > f$

Not transitive



$a > b > c > a$

Second limit on the domain of the model:



Similar purpose to completeness:

Can't model choice if the decision maker can't choose

Rational Preferences

If preferences satisfy **completeness** and **transitivity**:

Then in economic terminology they are said to be **rational**

⚠ *Economic definition of rational means **only** that a person has **complete** and **transitive** preferences.* ⚠

Implies person makes purposeful, systematic choices.

Does **not** imply person is prudent, responsible, self-interested, or anything else. Can encompass a *very* wide range of preferences.