

Notes from MWG's *Microeconomic Theory*

Ariel Boyarsky
aboyarsky@uchicago.edu

December 21, 2017

Ch. 1 Preference and Choice

0.1 Preference Relations

Axioms of Preference:

- i. $x \succ y$. x is "strictly" preferred to y if and only if (iff) $x \succeq y$ but $y \not\succeq x$. Note: $x \succeq y$ is an at least as good as relation. That is, x is at least as good as y .
- ii. $x \sim y$. Then, x is indifferent to y . Thus, $x \succeq y$ and $y \succeq x$.

Definition: We call a relation *rational* if it is both **complete** and **transitive**. Consider the set of goods, X .

- i. Completeness: $\forall x, y \in X$ either $x \succeq y$ or $y \succeq x$ or both.
- ii. Transitivity: $\forall x, y, z \in X$ if $x \succeq y$ and $y \succeq z$ then $x \succeq z$.

Proposition: It follows, that if \succeq is rational then:

- i. \succ is irreflexive

Ch. 2 Consumer Choice

Walrasian budget set, $X = \mathbb{R}_+^L$