Econ 301 - Microeconomic Theory 2 **Winter 2018**

Lecture 7: January 24, 2018

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7.1 Endowments

In Class Numbering : 1.2

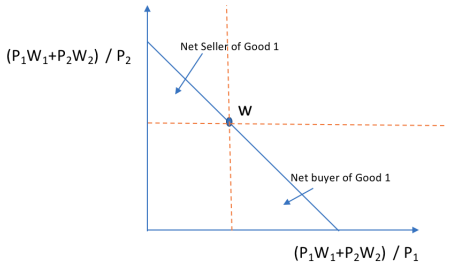
- So far, we have assumed that consumer's income m is exogenous

Definition 7.1 *An endowment is a consumption bund;e* $\omega = (\omega_1, \omega_2) \in \mathbb{R}^2_+$, *where* ω_i *is the quantity of good* $i = 1, 2$ *that belongs to consumer* i.

Given prices p *and endowment* ω_1 *budget set is*

$$B = \{(x_1, x_2) \in \mathbb{R}^2_+ \mid p_1 x_1 + p_2 x_2 \leq p_1 \omega_1 + p_2 \omega\}$$

Definition 7.2 *Given prices* p, *endowment* ω *and bundle* x, *the consumer is a net buyer of good i=1,2 if* $x_i - \omega_i \geq 0$ *and net seller if* $x_i - \omega_i \leq 0$



7.2 Intertemporal Choice

- Consumption decisions have dynamic component: must decide what, but also when to consume
- We can express dynamic problems as variants of static problems we have covered.
- Consider an economy with 2 periods
- There is a single consumption good in each period and let $c_1, c_2 geq 0$ denote consumption choices in periods 1 and 2
  - Suppose price of consumption good is $p > 0$ in each period.
  - Consumer has income $m_1 > 0$ in period 1 and $m_2 > 0$ in period 2.
  - Any unspent income from period 1 can be saved at interest interest rate r [Saving $[m_1 - pc_1]$ yields $(1 + r)[m - p_1 c_1]$ in period 2

– Intertemporal budget set with saving is

$$B = \{(c_1, c_2) \in \mathbb{R}^2_+ \mid p_1 c_1 \leq m_1 \ , p_2 c_2 \leq m_2 + (1 + r)[m_1 - pc_1]\}$$