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

Lecture 16: March 12, 2018

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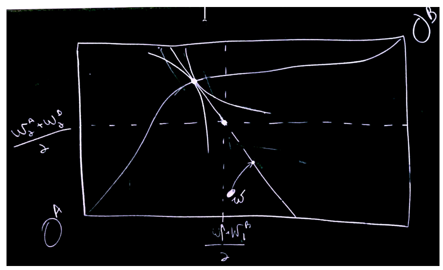
16.1 Welfare Continued

16.1.1 Second Welfare Theorem Continued



Theorem 16.1 *(SWT) If consumers' preferences are monotone and convex, then for any Pareto-efficient allocations x^A and x^B, there exists endowments ω^A and ω^B along with a competitive equlibrium that generates x^A and x^B.*

⋆ **FWT :** Competitive equilibrium which exhausts gains from trade

⋆ **SWT :** Competitive equilibrium which takes no stand on final distribution of goods.

- SWT leaves room for government intervention that is consistent with Pareto-efficiency
  - Redistribution of endowments is a system of taxation.
  - In the figure, endowment distribution entails increasing consumer A's endowment of good 2.
- What if instead government subsidised consumption of good 2 by consumers A?
  - Given any equilibrium price p^*, the price paid for good 2 by consumers A is $p_2^* - s$
  - Any equilibrium allocations x^{A*} and x^{B*} are <u>not</u> Pareto-efficient because

$$\frac{\frac{d}{dx_1^A} u^A(x_1^{A*}, x_2^{A*})}{\frac{d}{dx_2^A} u^A(x_1^{A*}, x_2^{A*})} = \frac{p_1^*}{p_2^* - s} \qquad (MRS_a)$$

$$\frac{\frac{d}{dx_1^B} u^B(x_1^{B*}, x_2^{B*})}{\frac{d}{dx_2^B} u^B(x_1^{B*}, x_2^{B*})} = \frac{p_1^*}{p_2^*} \qquad (MRS_b)$$

- In summary, Redistribution of endowments does not affect consumers' marginal incentives.
- Subsidies ensure that consumer A values units of good 2 less that consumer B on equilibrium, so there are gains from trade between them.

16.2 Externalities

(Finally! Almost done with micro) In-class Numbering : 4.0

- An allocation of competitive markets is their decentralization
- A problem can arise, if consumption choices of some consumer impact well being of other consumer. This is called Consumption externalities
- Positive externalities are present if some consumers benefit from the consumption of a good by other consumers.
- Trivially, Negative externalities are presentif some consumers do not benefit from the consumption of a good by others.
- In competitive markets, how do consumers' decisions internalise the effects they have on others?

To be continued next lecture.