## Lecture 8

Varian, Chs. 21 and 22.1

- 1 Summary of Lectures 1, 2, and 3: Production theory
- 2 Summary of Lectures 4 and 5: Consumption theory
- 3 Summary of Lectures 6 and 7: General equilibrium
- 4 The core of an exchange economy

**Definition 1** An allocation x is in the core of an exchange economy if it cannot be improved upon by any coalition.

**Proposition 2** The Walrasian equilibrium is in the core.

**Proposition 3** Assume that preferences are strictly convex and st'rongly monotone, and that there exists a single equilibrium  $(x^*, p)$ . Then, there exists some replica r of the economy such that y is not in the r-core.

## 5 Uniqueness of equilibrium

**Definition 4** Net substitutes

**Definition 5** Gross substitutes

**Proposition 6** If all goods are gross substitutes at all prices, there exists a single equilibrium price vector.

## 6 Welfare: the compensation criterion

**Definition 7** The allocation x' is said to be a potential Pareto improvement on x if there is some way to reallocate x' so that everyone prefers the reallocation to x.