More than two goods/countries?

- With two countries and many goods the goods can be ranked in a chain of comparative advantage based on the ratios of u.l.r.
- With *N* goods and two countries: $a_1^A / a_1^B < a_2^A / a_2^B < \cdots < a_N^A / a_N^B$
- Country A has c.a. in the low end of chain and B in the high end
- Under free trade both specialize and export goods at the ends, but perhaps some good is being produced in common
- With two goods and *M* countries: $a_X^1 / a_Y^1 < a_X^2 / a_Y^2 < \cdots < a_X^M / a_Y^M$
- Countries in the low end specialize and trade X to high end
- To note: different country sizes, technologies, and tastes

Complete specialization?

- The Ricardian model → countries should completely specialize in production

- But this rarely happens for primarily 3 reasons:
  1. More than one factor
  2. Protectionism
  3. Transportation costs

- Also, full specialization arises only if the two countries' capacities to produce their c.a. goods meet world demands
  - If the u.l.r. in one (small) country are too high to satisfy demand, it will still specialize but the other (large) not (gains and loses?)

Effects of trade

- Each country exports the good in which it has c.a. (lower relative autarky price than the other country)

- Countries expand production of the good they export; labor is reallocated from the import-competing industry

- Relative price of a country's export good rises, except in the case of a "large" country, defined here as one whose trading partner is too small to meet its demand for imports

- Consumption and welfare are unchanged by trade in a "large" country; in any country that is not large, consumers buy more of one or both goods and welfare increases