Heckscher-Ohlin Theory

♦ Two factors of production: capital and labor

♦ Countries have identical technology

♦ Labor abundant/capital abundant

♦ Labor intensive/capital intensive

Factor Abundance and factor intensity

♦ Abundance defined in two ways:

– First definition is based on relative factor quantities.

• Country A is capital abundant if it has more capital per unit of labor than does country B.

– If A is capital abundant, then B must be labor abundant.

• This definition is used in the textbook.

♦ Second definition is based on factor prices.

• Country A is capital abundant if the relative rental rate for capital in A is lower than in B.

Factor intensity

♦ Wheat is capital or land intensive, and cloth is labor intensive.
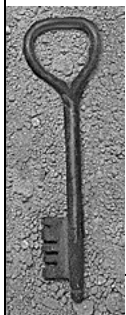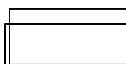
1st predictions of the Heckscher-Ohlin Theory

Prediction of the theory:

1)A country exports the product that uses their abundant factor Intensively. For instance,

$$\frac{\text{US land supply}}{\text{US labor supply}} > \frac{\text{Foreign land supply}}{\text{Foreign labor supply}}$$
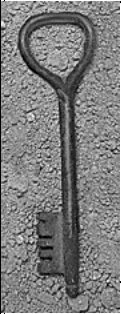
Second prediction: (contd from Chap4)

Stolper-Samuelson Theorem:

♦ Link between changes in output prices and changes in factor prices.

♦ Most general form: an increase in the relative price of a good increases the real return to the factor used intensively in that good's production and decreases the real return to the other factor.

  – Factor prices change proportionally more than output prices (*magnification effect*).

♦ When assumptions of Heckscher-Ohlin model are added, the Stolper-Samuelson theorem means that opening trade *raises* the real reward to the abundant factor and *lowers* the real reward to the scarce factor.

  – Trade boosts production of the good of comparative advantage, increasing that good's opportunity cost and relative price.

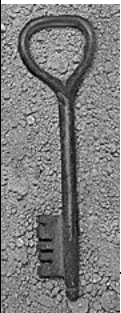# 3rd Prediction: Factor price equalization theorem

The Factor Price Equalization Theorem

♦ According to Stolper-Samuelson theorem, moving from autarky to unrestricted trade raises the real reward of the abundant factor.

  – Similarly, such a move lowers the real reward of the scarce factor.

  – Same adjustment takes place in the second country, but with the roles of the two factors reversed.

    • Trade raises the real reward of a factor in a country where that factor is abundant and lowers its price in the country where it is scarce.

♦ Thus, even when factors are immobile between the two countries, unrestricted trade in goods tends to equalize the price of each factor across countries.

  – With free trade in goods and no international factor mobility, $w^A = w^B$ and $r^A = r^B$.

Does H-O theory explain actual trade pattern?

♦ Read pp.68-76. Also read, the box on p. 52 about China's production shift after opening-up trade.

Distribution of gains from trade

♦ Workers?

♦ Producers?

♦ Differences in the countries: