

The Lewis Model of the International Division of Labor

Purpose: to explain why wages stagnate in South and terms of trade deteriorate for primary product exporters.

Core of the model:

P_F = International Price of Food

a_f^N = labor required per unit of food production in North (temp.)

a_f^S = labor required per unit of food production in South (trop.)

w^N = wage in North, w^S = wage in South

Food is traded internationally, so:

$$a_f^N w^N = P_F = a_f^S w^S$$

Thus, if $a_f^N < a_f^S$, then $w^N > w^S$.

Wages are determined by the productivity of labor in agriculture (as in the first Lewis model).

P_T = Price of primary product export from South (tropics)

P_I = Price of industrial product export from North (temperate)

$$P_T = a_t^S w^S$$

$$P_I = a_i^N w^N$$

Thus, if productivity improvements occur in primary product exporting countries, they will not be able to capture the tech gain because wages are set by the opportunity cost of labor in food production.

Rising productivity of labor in food agriculture in N pushes up wages there relative to those in S during the critical era of the late 19th century and propels industrial development of N. Eventually, wages in N take on their own dynamic of growth, perhaps independent of this relationship but not in S, where the opportunity cost of labor remains low. The low opportunity cost of labor in S is reinforced by the migration flows of low wage labor to S and limitations on this flow to the N.