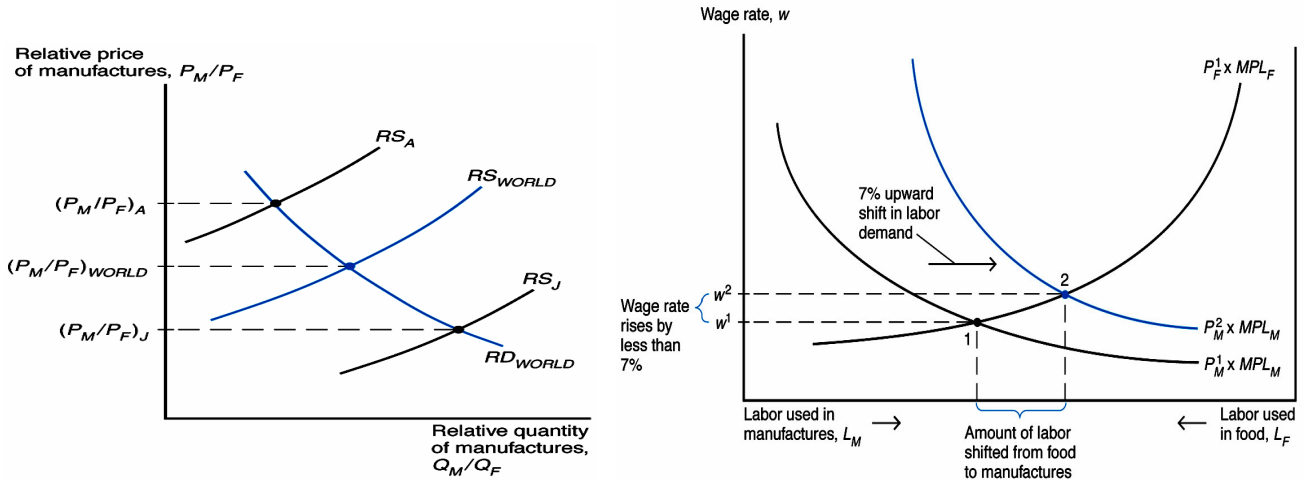


**Lecture #6**  
**Specific Factors Model, Part III**  
**(Focus on Distributional Consequences of Trade)**  
**Economics 181, International Trade**

**I. Summary from last class: Impact of Opening up to Trade on Labor**



Recall that we are Japan. With trade, the relative price of manufactures rises relative to Japan's autarky relative price (left hand side diagram). So what happens to wages if  $P_M$  rises (and assume there is no change in  $P_F$ ). We see that the Value of MPL curve ( $=P_M \times PML_M$ ) for manufactures shifts up and to the right as  $P_M$  rises, resulting in a higher  $w$  and more labor allocated to manufactures.

Although nominal  $w$  rises, impact of trade on the mobile factor is ambiguous because its real income increases in terms of the imported good (food), and decreases in terms of the exported good (manufactures).

$w$  rises (from  $w_1$  to  $w_2$ )/ $P_F$  (no change) = real  $w$  rises in terms of food.

But  $w/P_M$  falls because  $P_M$  rise higher than  $w$  rise (we see this on the graph at upper right).

Overall gain to labor depends on how much of the exported and imported goods the workers consume.

**II. What happens to return to capital (ie the return to the factor specific to the export sector?)**

Capital owners in manufacturing are better off because

- (1) The price of the good they produce increases and
- (2) Workers move to their industry

Real income of capital owners rise in terms of both goods:

$$r_m = P_M \times MPK_m \text{ implies that } r_m/P_M = MPK_m \text{ rises}$$

And  $r_m/P_F$  rises because  $r_m$  rises but there is no change in  $P_F$

### **III. Return to Factor Specific to Food: (Land): The Factor specific to the import-competing sector.**

This is the factor specific to the import-competing sector. Land-owners lose because:

- (1) The price which at which they buy manufactures rises
- (2) Their nominal return  $t_f$  falls.

How do we know?

Recall that Japan now produces more manufactures and less land. So labor flows out of the land sector. This means that  $MPTL$  falls. (recall our discussion of the CD function)

So real income of landowners falls in terms of both goods:

$t_f/P_m$  falls because  $t_f$  falls and  $P_m$  rises

and  $t_f/P_f$  falls because  $t_f$  falls and there is no change in  $P_f$ .

### **IV. Summarizing the impact of an increase in $P_m$ on returns to factors in Japan.**

$$\% \Delta r_m > \% \Delta P_m > \% \Delta w > \% \Delta P_f = 0 > \% \Delta t_f$$

**Trade liberalization (opening up to trade):**

- **Benefits factors of production specific to the export sector**
- **Hurts factors of production specific to the import-competing sector**
- **Has ambiguous effects on the mobile factors of production**

### **V. An Example**

### **VI. Some Empirical Evidence**

### **VII. The Budget Constraint**