

## Session 7. General equilibrium trade analysis, continued

### 4. General equilibrium trade modeling: Heckscher-Ohlin-Samuelson (H-O-S) 2 x 2 x 2 trade model

#### 4.9 H-O-S model of trade: from pre-trade to free trade

##### 4.9.1 Implications of large country

##### 4.9.2 Implications of non-identical preferences

### 5. Theory of factor markets: relation of output and input prices and factor allocation

#### 5.1 Marginal productivity and wages: input price = value of marginal product of the input (VMP)

5.1.1 Labor factor:  $[P_L]_A = [P_A] \cdot [MP_L]_A$  and  $[P_L]_M = [P_M] \cdot [MP_L]_M$

5.1.2 Capital factor:  $[P_K]_A = [P_A] \cdot [MP_K]_A$  and  $[P_K]_M = [P_M] \cdot [MP_K]_M$

#### 5.2 Factor market equilibrium and factor mobility

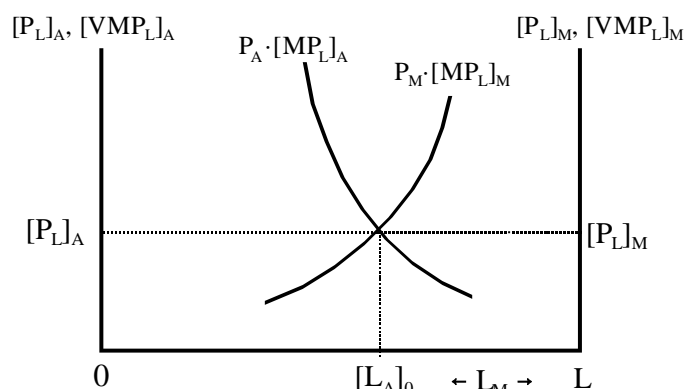
5.2.1 Factor market equilibrium:  $[P_L]_A = [P_L]_M$  and  $[P_K]_A = [P_K]_M$

5.2.2 Factor adjustment when:  $[P_L]_A \neq [P_L]_M$  or  $[P_K]_A \neq [P_K]_M$

5.2.3 Factor movement:  $[P_L]_A > [P_L]_M$  implies L moves from M-sector to A-sector

#### 5.3 Implication of decreasing marginal productivity of a factor (labor)

Labor market equilibrium in both sectors: labor is allocated to agricultural production and manufacturing and the wage rate is equal across sectors.



#### 5.4 Effect of trade liberalization (South's perspective): $\Delta P_A/P_M$ , $\Delta P_L/P_K$ and factor reallocation

##### 5.4.1 Change in relative output prices: $\uparrow P_A$ relative to $P_M$

##### 5.4.2 Production effects: $\uparrow Q_A$ relative to $Q_M$

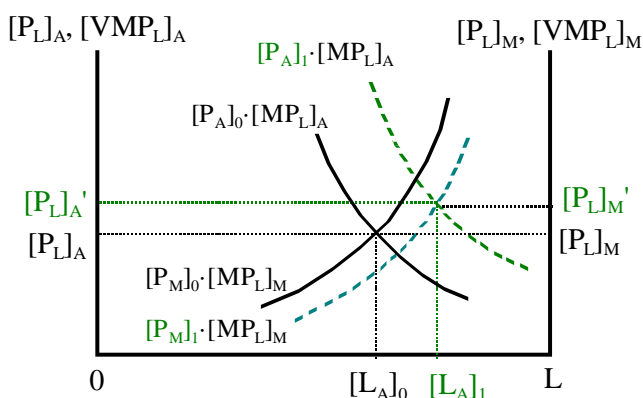
##### 5.4.3 Factor intensity in A-production implies $\uparrow [D_L]_A > \uparrow [D_K]_A$

##### 5.4.4 Factor intensity M-production: relatively more K is released than L in manufacturing sector

##### 5.4.5 Implications for relative factor prices: $\uparrow P_L$ relative to $P_K$

##### 5.4.6 Factor reallocation: K and L moves from M-sector to A-sector

Labor market equilibrium in both sectors after trade: output prices change (increase in price of agricultural good relative to manufacturing good), production adjusts (increase in agricultural production and decrease in manufacturing), which frees labor and capital to move from manufacturing to agriculture.



#### 5.5 International output and factor price convergence

##### 5.5.1 Relative prices increase from South's perspective

##### 5.5.2 Relative prices decrease from North's perspective

