International Factor Movement

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Outline

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  - Reasons for international capital movement
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International Capital Movements: definitions

- Foreign Direct Investment (FDI): a movement of capital that involves ownership and control.
  - When a foreign firm purchases more than 50% of the shares outstanding, it has a management control. The purchased firm becomes a foreign subsidiary.
- Foreign portfolio investment: the flow of financial capital that does not involve ownership or control.
  - the deposit of funds in a Thai bank by a U.S. company

International Capital Movements: definitions

- FDI is usually undertaken by MNC.
- Multinational corporation (MNC), multinational enterprise (MNE), transnational corporation (TNC): a corporation that has the headquarters located in one country while its production is taking place in plants located in two or more countries.
- Examples: Toyota, Nike, Seagate

Foreign Direct Investment inflows: data

Unit: $US billion

Country	**2000**	**2001**	**2002**
World	1,393	824	651
Developed	1,120	589	460
EU	684	389	374
USA	314	144	30
Developing	246	209	162
China	41	47	53
Thailand	3	4	1

Reasons for International Movement of Capital

- In general the capital is moved in response to the expectation of a higher rate of return in the new place.
- Some hypotheses:

1. Large and rapidly growing markets. (China)
2. High per capita income (product cycle theory).
3. Securing natural resources or raw material deposits (petroleum).
4. Getting behind the tariff or non-tariff wall.

Reasons for International Movement of Capital

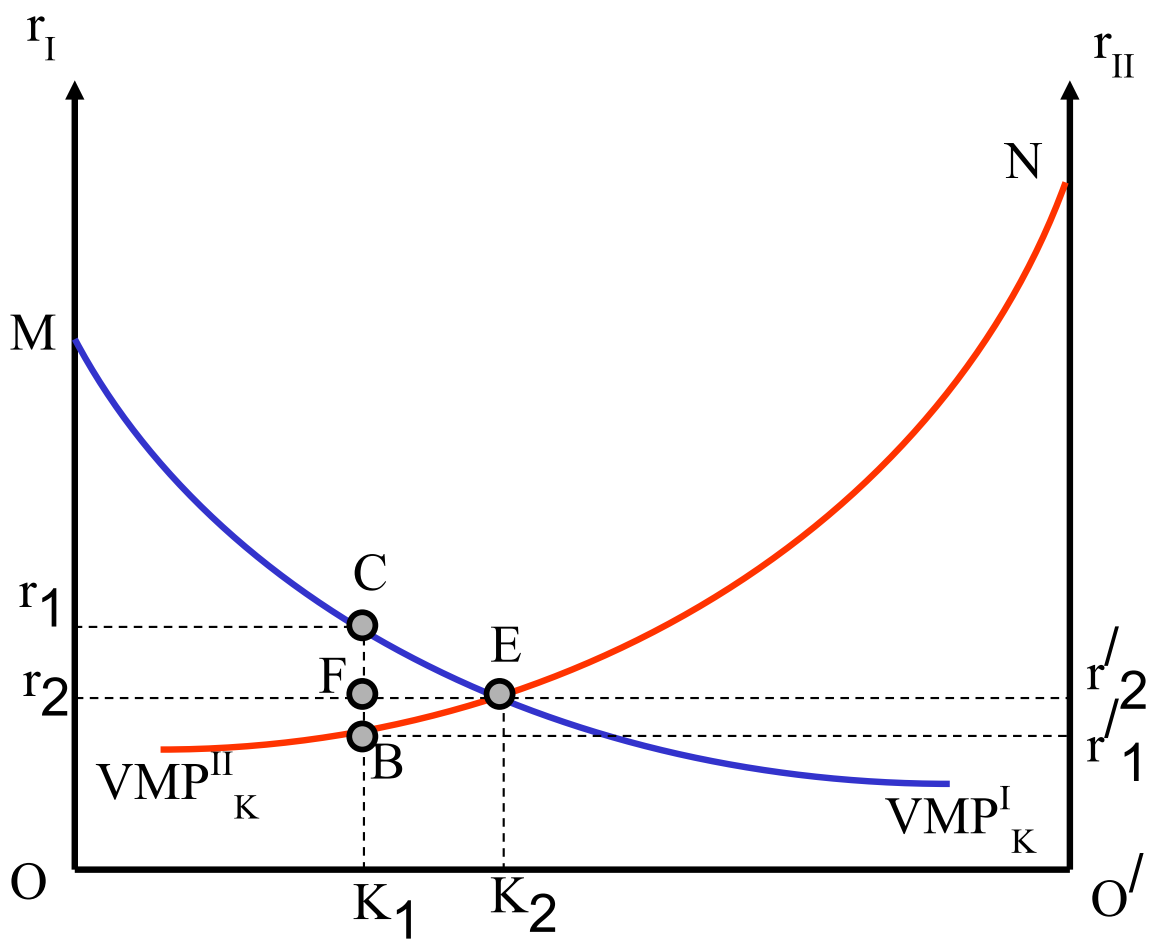
5. Low-relative-wage host countries for labor-intensive stages of production (electronics, automobile).
6. Strategic purpose to preserve competitive position.
7. Risk diversification.
8. Foreign firms' specific knowledge or asset may help to outperform the host country's domestic firms (Banking).

Analytical effects of international capital movement

Assumptions

- Two countries, I and II,
- For simplicity, there is only one good and the price = 1.
- VMP^{I}_{K} represents demand for capital in I and VMP^{II}_{K} represents demand for capital in II.
- Initially country I has OK_1 of capital while country II has $O^{/}K_1$. Total world capital is fixed and equal to the distance $OO^{/}$.
- Perfectly competitive factor market.
- No international movement of labor.

Analytical effects of international capital movement



Before capital movement

- Capital in I will be paid at its VMP = r_1 per unit while in II = r'_1 per unit.
- GDP in I = area $OMCK_1$.
- GDP in II = area $O'NBK_1$.

Analytical effects of international capital movement

- In I, Area Or_1CK_1 is the total return (or profit) of capital in I while labor gets the remaining area CMr_1.
- In II, Area $O'r'_1BK_1$ is the total return (or profit) of capital in II while labor gets the remaining area BNr'_1.

After capital is allowed to be moved:

- Since r_1 in I is higher than r'_1 in II, capital will flow from II to I until the rate of returns are equalized.
  - The amount of K_1K_2 moves from II to I.
  - r_1 falls to r_2 while r'_1 rises to r'_2.

Analytical effects of international capital movement

- Factor price equalization by free mobility of capital.
- Output rises in I by the area K_1CEK_2 ; output falls in II by K_1BEK_2.
- World output rises by the area BCE due to efficient allocation of resources between the two countries.
  - Free movement of capital increases efficiency similarly to free trade.
- Free trade and free factor mobility are substitutes to one another.

Analytical effects of international capital movement

- The capitalist in I received Or_1CK_1 before the capital movement, but now receives Or_2FK_1 or reduces by r_1CFr_2.
- The capitalist in II received $O'r'_1BK_1$ before the capital movement, but now receives $O'r'_2FK_1$ or increases by $r'_1BFr'_2$.
- The total sum of the two returns may increase or decrease depending on the price elasticity of each VMP curve.

Analytical effects of international capital movement

- However, the total world output increases. It is theoretically possible to redistribute income such that both sets of capitalists could be better off than before.
- Workers in I is better off by the area r_1CEr_2.
- Workers in II is worse off by the area $r'_1BEr'_2$.
- The total sum of the two returns may increase or decrease depending on the price elasticity.
- Again it it possible to redistribute income to make everyone better off.

Analytical effects of international capital movement

- GNP consists of total wages plus total profits earned by the resident of that country.
- GNP in I increases by CEF (area r_1CEr_2 - r_1CFr_2) while GDP increases by K_1CEK_2
- However, the area K_1FEK_2 accrues to II (r'_2 x K_1K_2).
- Hence, GNP in II increases by BEF ($r'_1BFr'_2$ - $r'_1BEr'_2$) even though its GDP decreases by K_1BEK_2
- Both countries gain from international factor mobility.

Benefits of FDI

- Increased output: FDI increases the MP_L and output.
- Increased wages: higher MP_L increases wages.
- Increased employment: if FDI requires more labor. Not true if FDI comes with capital intensive technology.
- Increased exports: if FDI generates goods with export potential.
- Increased tax revenues: if the host country is in a position to implement effective tax measures -> a source of new tax revenue. But the host country may use tax privileges to attract FDI.

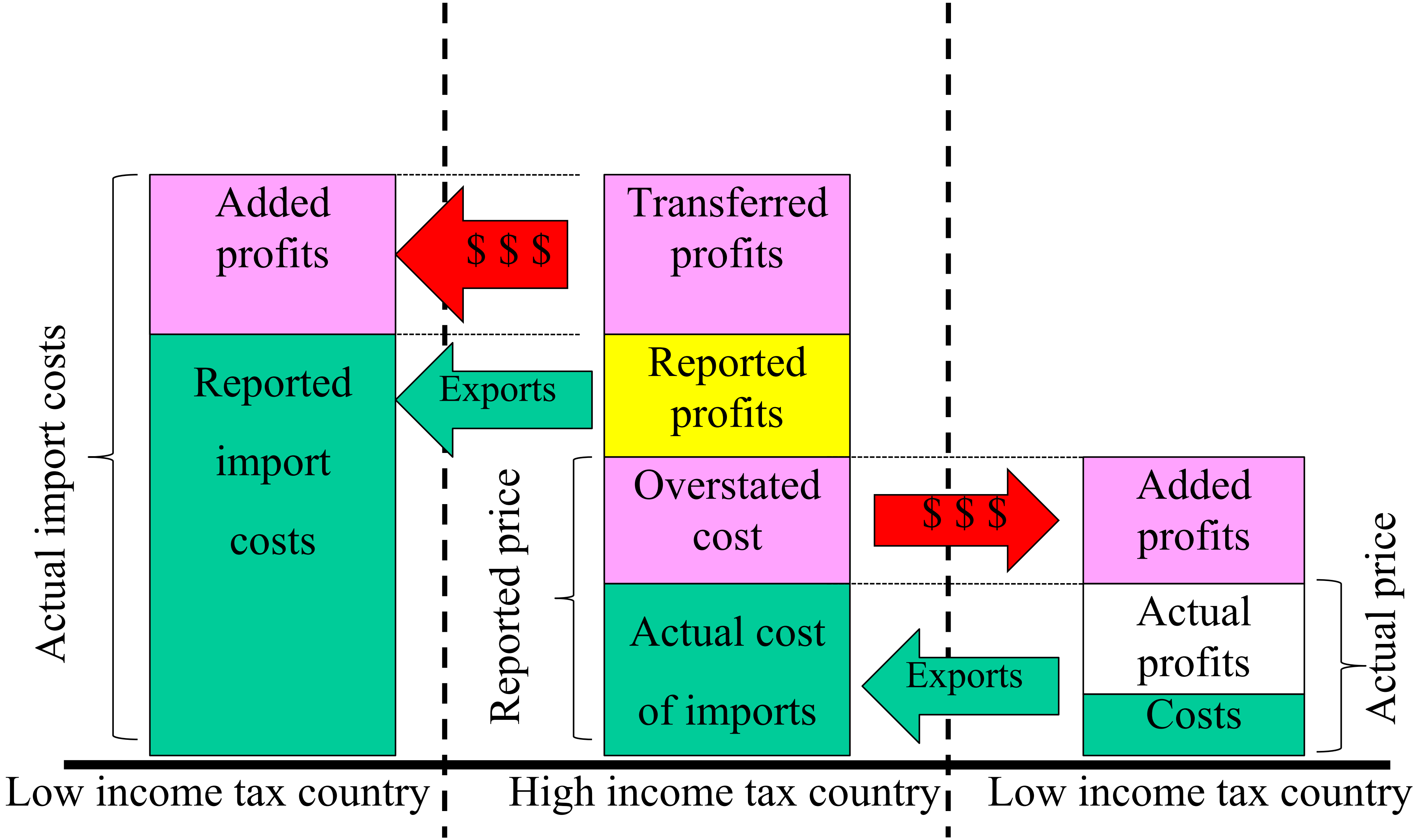
Benefits of FDI

- Realization of scale economies: home firms may not be able to generate the necessary capital to achieve the scale.
- Provision of technical and managerial skills and of new technology.
- Weakening of power of domestic monopoly.

Cost of FDI

- Decreased domestic investment: The foreign firm may borrow funds in the host country's capital market and drive up interest rate. Besides, domestic financial firm may prefer to provide financial capital to the MNC than domestic firms because of perceived lower risk.
- Transfer pricing: a subsidiary in a developing country may reduce its recorded profits by understating the value of its exports to other subsidiaries in other countries and overstating the value of its imports from other subsidiaries.

Transfer pricing



Cost of FDI

- Loss of control over domestic policy
- Increase unemployment
- Establishment of local monopoly: a large foreign firm may undercut and drive domestic firms from local industry.
- Inadequate attention to the development of local education and skills: MNC may reserve the job that require expertise in the home country and keep lower level of skill in the host country
  ---> performance requirements

Multinational Corporations (MNCs)

- MNCs account for over 20% of world output.
- Intra-firm trade (among parent firms and subsidiaries) is more than 25% of world trade in manufacturing.
- Reasons for existence of MNCs
  - Advantage of global network of production and distribution via vertical and horizontal integration.
  - Economies of scale.
  - More power when negotiates with host government.
  - Transfer pricing allows MNCs to minimize its tax bill.

Problems by MNCs in the home country

- Loss of unskilled jobs at home because MNCs seek cheap labor supply. But some skilled jobs may be created too.
- Undermine the technological edge of the home nation via exporting of technology. But MNCs may concentrate more R&D activities or keep the core technology at home.
- FDIs abroad reduce the tax revenues and the tax base of home country.
- MNCs can circumvent domestic monetary policies since they can access international capital market. Home government has less monetary control.

Problems by MNCs in the host country

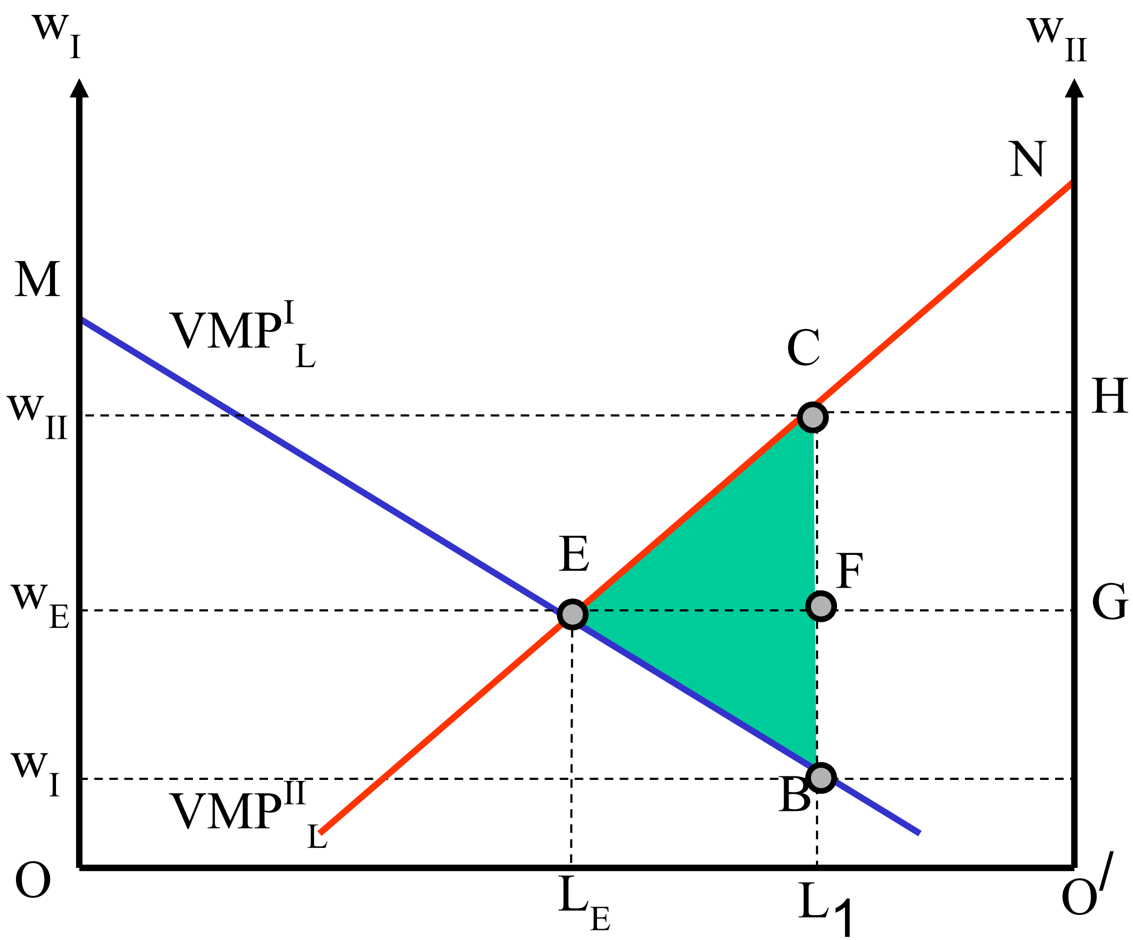
- MNCs dominate the host country's economies.
  – Borrowing of funds abroad to circumvent tight domestic credit conditions and lending of funds abroad when interest rates are low at home.
  – The effect on national tastes of large-scale advertising for foreign goods.
- The siphoning off of R&D funds to the nation of parent firms and keeping the host nation technologically dependent.
- Over exploitation of natural resources.

Economic Effects of Labor Movements

- Assumptions
- Two countries, I and II,
- For simplicity, there is only one good and the price = 1.
- VMP^{I}_{L} represents demand for labor in I and VMP^{II}_{L} represents demand for labor in II.
- Initially country I has OL_1 of labor while country II has $O^{/}L_1$. Total world labor is fixed and equal to the distance $OO^{/}$.
- Perfectly competitive factor market and full employment.
- No international movement of capital.

Economic Effects of Labor Movements

Before labor movement: Labor in I will be paid at the its VMP = w_I per unit while in II = w_{II} per unit.



- Since $w_I < w_{II}$, labor moves from I to II until they are equalized at w_E.
- The wage rate in I rises while the wage rate in II falls.

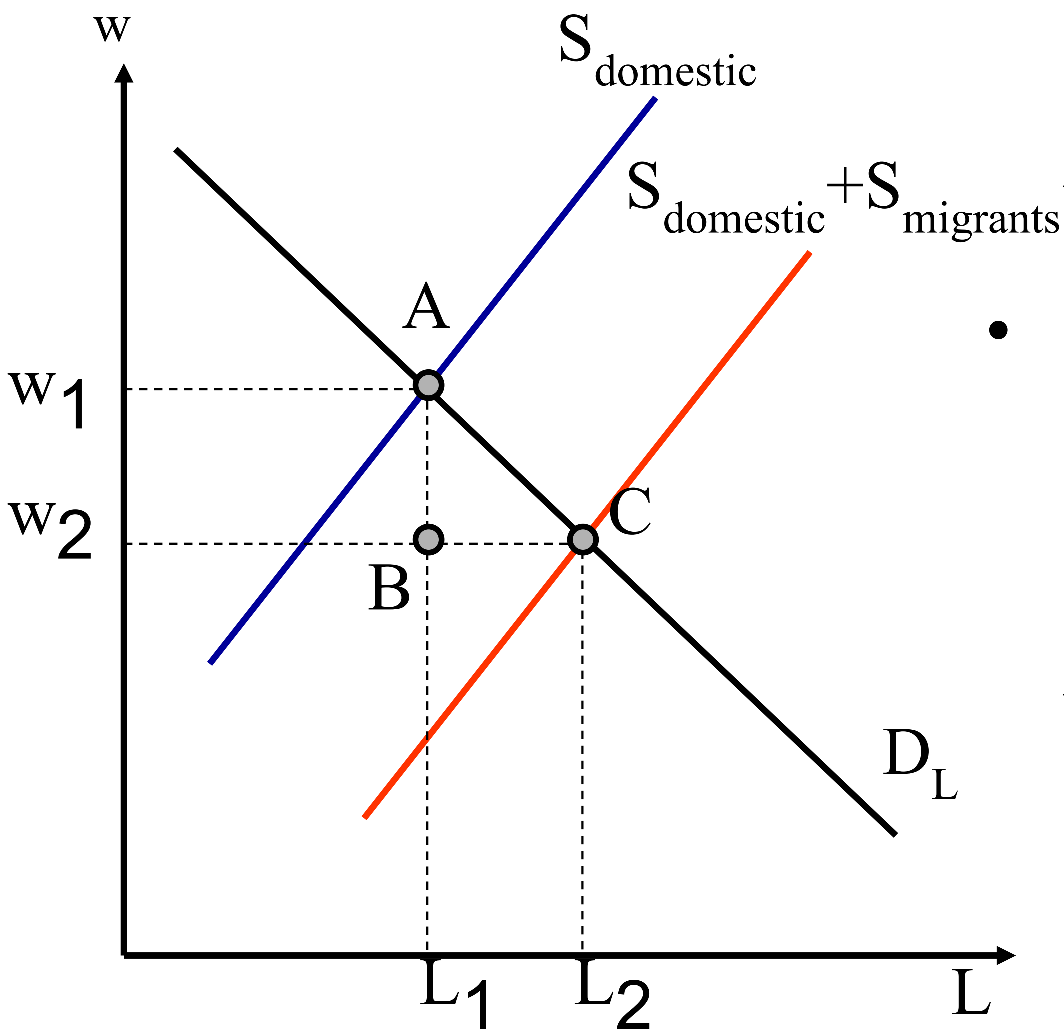
Economic Effects of Labor Movements

- Workers in I are better off since the wage rate is higher. Total wages are increased by the area w_EFBw_I.
- Capitalists in I are worse off by the area w_EEBw_I.
- Workers in II are worse off since the wage rate is lower. Total wages are decreased by the area CFGH.
- Capitalists in II are better off by the area CEGH.
- GDP in I falls by the area L_1BEL_E and GDP in II rises by the area L_1CEL_E. World GDP increase by the area CBE.

Additional considerations about international migration

- Rybczynski Theorem: given full employment and constant international prices, the increase in labor force in II leads to expansion of labor-intensive good and contraction of capital-intensive good. The opposite is true for country I.
- Transfer income from immigrant back to country I will compensate some of the loss and reduce the gain II.
- Discriminations against the migrant worker.

Additional considerations about international migration



- Assuming flexible supply of labor, all workers are paid at the market clearing wage w_2.
- If discrimination is possible, domestic workers may be subsidized by the amount of total wage difference w_1ABw_2 leaving them indifferent (and oppose less) and employer get net gain ABC.

Additional considerations about international migration

- Illegal migration
  - depress the income of low-skill workers in host countries.
  - social and health related problems of the immigrant.
- Brain drain: developing countries incur educational costs, but the developed countries received the benefits from these highly skilled workers.
  - Increase the divergence of income between nations.
  - Affect the dynamic comparative advantage of developing countries.