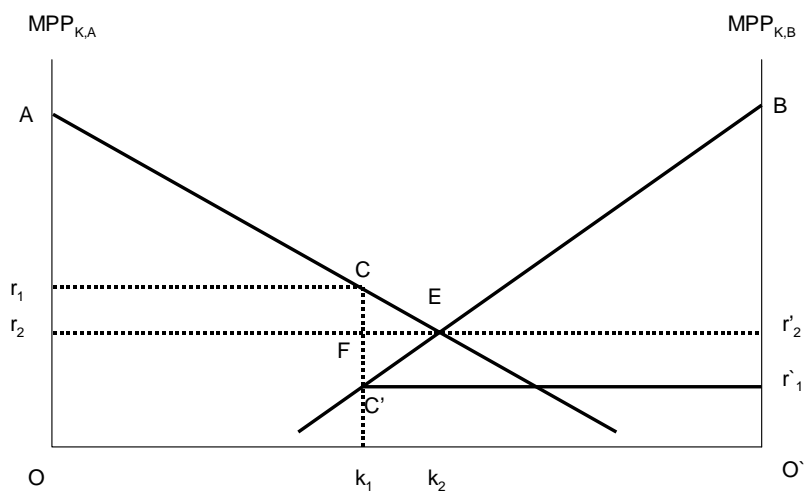


ECON 305
 INTERNATIONAL ECONOMICS I
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Key to Exercise 07
International Factor Movements

1. Suppose that the following capital market equilibrium is given for two countries. Answer the following questions by using the figure below.



Answer the following questions before capital moves.

(i) The rental rate of capital in Country A (Country B) is

Country A	Country B
r_1	r'_1

(ii) Total output in Country A (Country B) is equal to the area

Country A	Country B
$OACk_1$	$O'BC'k_1$

(iii) The rental capital income in Country A (Country B) is equal to the area

Country A	Country B
Or_1Ck_1	$O'r'_1C'k_1$

(iv) Workers in Country A (Country B) receive

Country A Country B
 r_1AC $r_1'BC'$

Answer the following questions after capital moves.

(v) Capital will move from Country B to Country A.

(vi) The amount of capital that moves is

k_1k_2

(vii) The rental rate of capital is r_2 in Country A after the capital movement.

(viii) Output in country A (Country B) will rise after capital movement. True or false. Prove.

Country A
True: $OACK_1 \rightarrow OAEk_2$

Country B
False: $O'BC'k_1 \rightarrow O'BEk_2$

(ix) World output after foreign direct investment will decrease. True or false. Prove.

False
World Output: $OACK_1 + O'BC'k_1 \rightarrow OAEk_2 + O'BEk_2$
The increase is $CC'E$

(x) Why may free factor mobility be a good substitute for free trade?

Two reasons: (i) Increase efficiency of resource use and (ii) achieves Factor Price Equalization

(xi) Rental capital income in Country A (Country B) will increase after FDI. True or false. Prove.

Country A

Country B

False: $Or_1Ck_1 \rightarrow Or_2Fk_1$

True: $O'r_1C'k_1 \rightarrow O'r_2Fk_1$

(xii) Wage income in Country A (Country B) will increase after FDI. True or false. Prove.

Country A
 True: $r_1AC \rightarrow r_2AE$

Country B
 False: $r_1BC' \rightarrow r_2BE$

(xiii) Total income in Country A (Country B) will increase after FDI. True or false. Prove.

Country A
 True. Increase: CFE

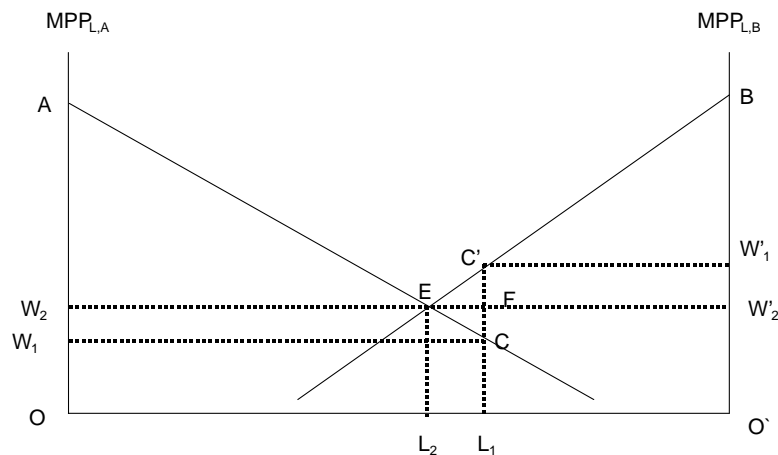
Country B
 True. Increase: C'FE

(xiv) Total world income will increase after FDI. True or false. Prove.

True. Increase: CC'E

Remark: We cannot conclude whether total world rental income or total world wage income has increased or not.

2. Suppose two countries, Indonesia (Country A) and Japan (Country B), decided to allow free labor movement between them. Assume that, relatively speaking, Indonesia is a labor-abundant country and Japan is a capital-abundant one. Hence, the wage rate in Indonesia is less than in Japan. In the boxes below indicate the effect of free labor movement on the variables listed in the first column in both Indonesia and Japan. You may also exploit the following figure for your answers:



	in Indonesia	in Japan	World
The rental rate of labor	W_1	W'_1	Not applicable
Labor employed	OL_1	$O'L_1$	OO'
Total output	$OACL_1$	$O'BC'L_1$	$OACL_1 + O'BC'L_1$
Capital-owners receive	W_1AC	W'_1BC'	$W_1AC + W'_1BC'$
Labor-owners receive	OW_1CL_1	$O'W'_1C'L_1$	$OW_1CL_1 + O'W'_1C'L_1$
Labor will move from	Indonesia		Not applicable
The labor movement amounts to			L_1L_2
The new rental rate of labor is	W_2	W'_2	$W_2 = W'_2$
The new output is (increase/decrease/)	Decrease	Increase	Increase
Labor-owners' income	Increase	Decrease	Unknown
capital-owners' income	Decrease	Increase	Unknown
Immigrants earn			L_1FEL_2