Int'l Factor Movements

KO chap. 7 divides discussion into:

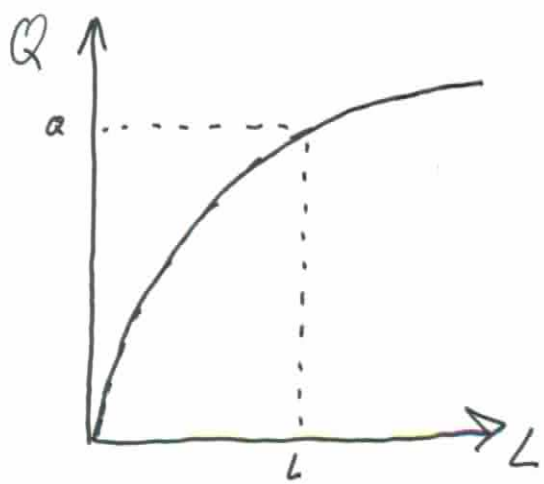
→ model of labor mobility

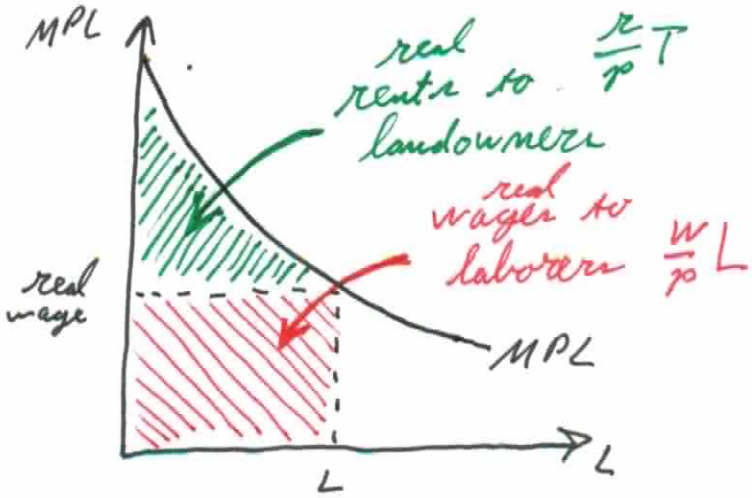
→ int'l borrowing + lending (i.e. trade over time)

→ multinational corporations

Labor Mobility

- Start by assuming that only one good produced using Labor + Land
- Land a fixed factor (cannot move)
- Production Function $Q(T, L)$





- recall that when land fixed area under MPL curve gives total quantity of output produced

$$pQ = wL + rT \Rightarrow Q = \frac{w}{p}L + \frac{r}{p}T$$

$$\text{real wage} = \frac{w}{p}$$

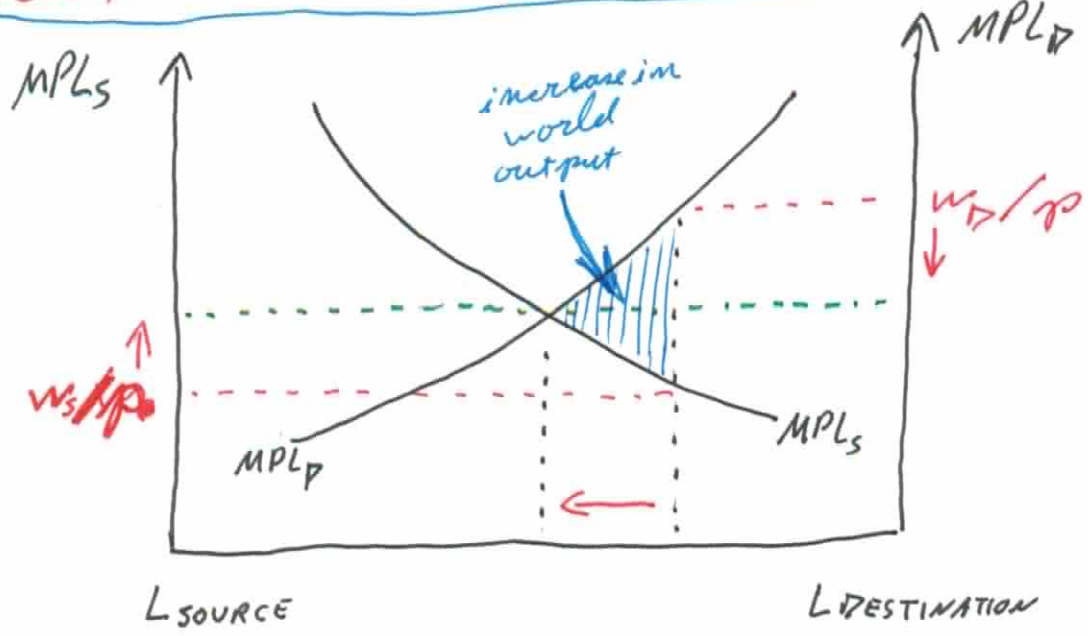
- Now allow two countries Prior to int'l labor migration the real wage will differ between countries
- when labor is allowed to migrate:

→ wages converge — real wages rise in source country (the country from which workers emigrate (leave))
+ real wages fall in the destination country (the country to which workers immigrate (come))

→ world output as a whole rises
- output falls in the source country
- output rises in the destination country

→ income distribution effects

	source country	destination country
wages	rise	fall
rents	fall	rise



when two goods produced

→ HO model predicts Factor Price Equalization
so is there any need for factor movements?

→ FPE fails when:

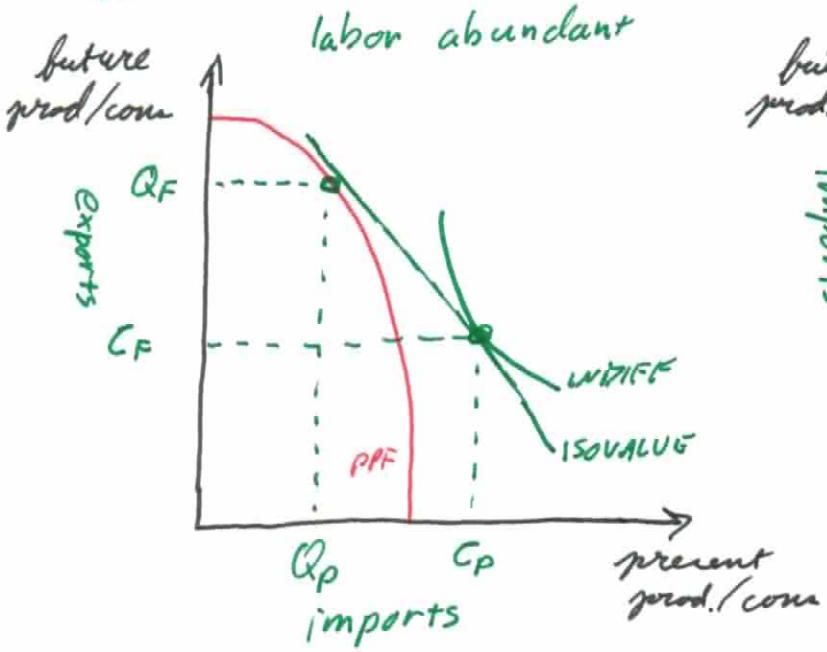
- countries so different in relative endowments of factors of production that each country specializes
- barriers to trade prevent convergence of output prices (transportation costs, tariffs, etc.)
- differences in technology

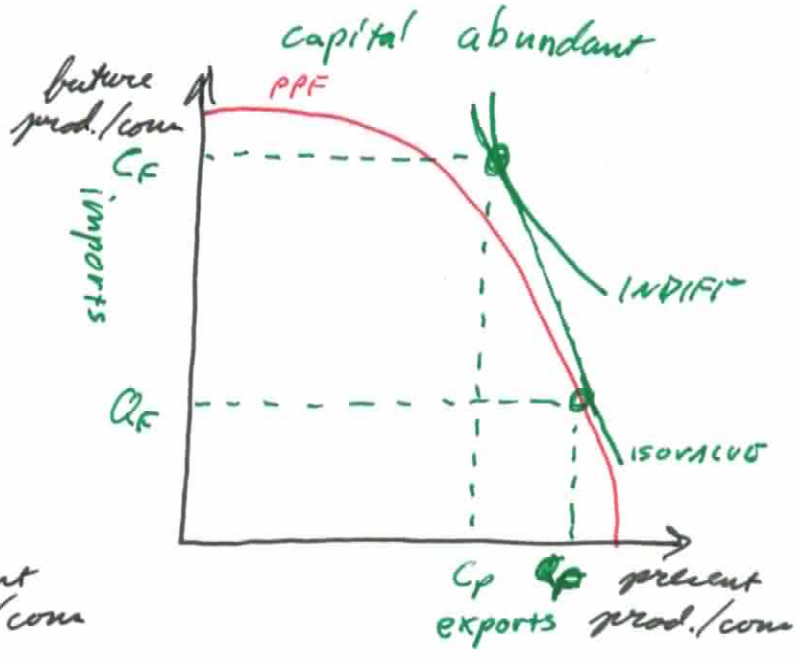
→ trade in factors very much like trade in goods occurs for same reasons + produces similar results

Intertemporal Trade

→ consider two countries with an identical endowment of labor
- one is capital abundant
- other is labor abundant

→ if the labor abundant country ~~[illegible]~~ invests in its capital stock then the AUTARKY opp cost of future production/consumption is lower than that of the capital abundant country





→ Since labor abundant country ~~[illegible]~~ has comp adv in future production it would want to borrow ~~[illegible]~~ from capital abundant country at interest rate r — ~~[illegible]~~ Labor abundant countries ~~[illegible]~~ import current consumption and export future consumption

Note Isovalue line drawn by

$$V = Q_P + \frac{Q_F}{1+r}$$

$$Q_F = (1+r)V - (1+r)Q_P \Rightarrow \boxed{\frac{dQ_F}{dQ_P} = -(1+r)}$$

$\frac{dQ_F}{dQ_{P_{present}}} = -(1+r)$ ← rel price of present consumption

$\frac{dQ_P}{dQ_{F_{future}}} = \frac{-1}{1+r}$ ← rel price of future consumption

Autarky isovalue line would be steeper in the labor abundant country because

$$r^{Autarky}_{Labor\ Ab} > r^{Autarky}_{Capital\ Ab}$$

$$\frac{p\,MPK_{LABOR\ AB}}{p_{CAPITAL}} > \frac{p\,MPK_{CAPITAL\ AB}}{p_{CAPITAL}}$$

Three forms of capital mobility

1. US bank lends to Mexican firm (the case above)
2. US residents buy stock in Mexican firms
3. US-based MNC invests thru its Mexican subsidiary

Foreign Direct Investment (FDI)

Multinational Corps (MNCs) a vehicle for international borrowing + lending

But why does int'l lending take the form of an MNC seeking control of productive operations abroad?

Theory of MNC

1 Question of LOCATION – why is good produced in two or more countries?

2. Question of INTERNALIZATION – why is production in different locations done by the same firm?

LOCATION – same as int'l trade ~~theory~~ models (i.e. Specific Factors or HO) location of production determined by RESOURCES also TRANSPORT COSTS and other BARRIERS to TRADE also determine location

INTERNALIZATION

1. output of one subsidiary an input in another subsidiary's production
VERTICAL INTEGRATION prevents conflict between upstream + downstream firm + prevents fluctuating price from imposing excessive risk on one party or the other

2. technology used in one country may be used in others

TECHNOLOGY TRANSFER

- techno could simply be licensed + sold

BUT techno could be knowledge ~~that~~ of how to run factory — can't necessarily be written down

ALSO difficult for buyer of technology to know how much it's really worth

3. may be advantages to coordinating the activities of plants in several countries

FDI flows into US

Krugman points to the LACK of CORRELATION between FDI flows + US capital imports

Lack of correlation shows that FDI is NOT primarily a way of transferring capital

So why did foreign firms come to US?

- US wages no longer highest in world
- fear of protectionism — esp. among Japanese firms in 1980s — so set up production in US in anticipation of trade barriers or to buy off protectionist sentiment by providing jobs
- foreign firms must believe that they have superior techno or superior mgmt techniques that allow them to produce more efficiently than US competitors