



**Migrations Internationales,
Commerce et Développement**
Master Economie des Relations Internationales
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Session 2:

The Links Between Trade and Migration

Structure of Lecture

1. The Issue
2. Some Stylised Facts
3. What does economic theory tell us about the links between trade and migration?
4. Trade in services and Migration: GATS and MODE 4

1. The Issue

■ Key Question:

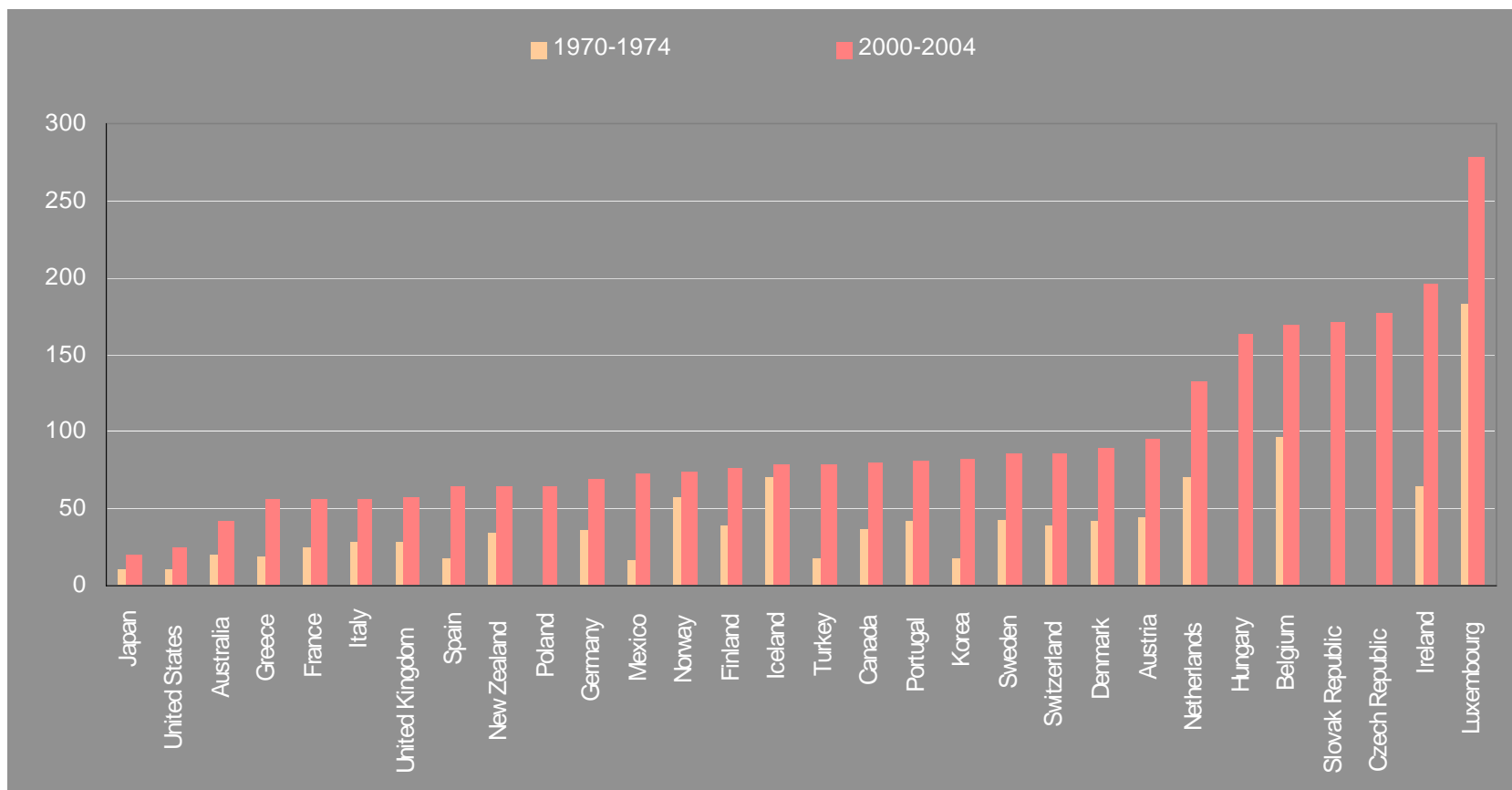
- Are trade/services liberalisation and growing FDI/outsourcing complements or substitutes with international factor mobility, especially of labour?

■ A live issue in current policy debates:

- EU enlargement to the East and to the South;
- The EUROMED PARTNERSHIP;
- NAFTA and the continuing debate between the US and Mexico
- The on-going negotiations in Geneva for liberalisation of trade in services (GATS); EU debate about the "Bolkenstein directive"

STYLISED FACTS

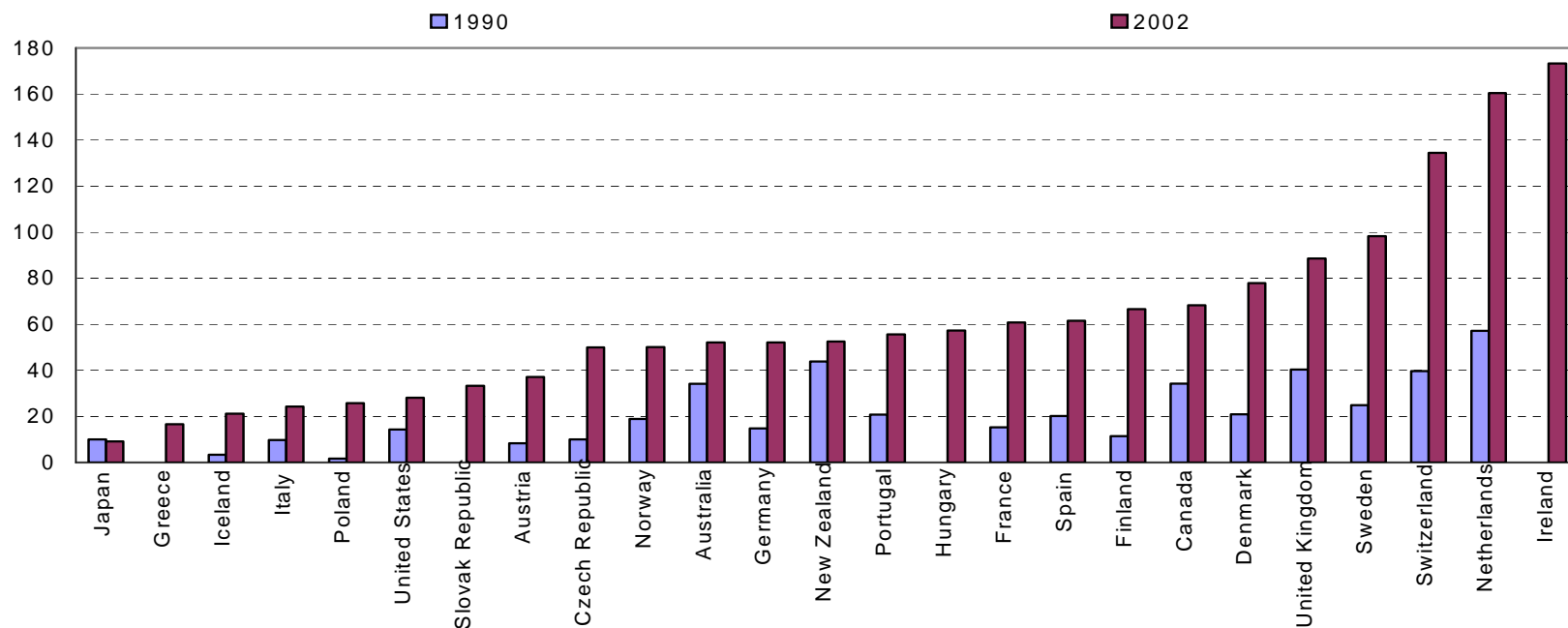
1. Trade openness has increased rapidly in recent decades ("Openness" = exports plus imports of good and services as a proportion of domestic production)



STYLISTED FACTS (cont.)

2. FDI "openness" has also increased

Sum of inward and outward international direct investment positions as a percentage of GDP, 1990 and 2002^c



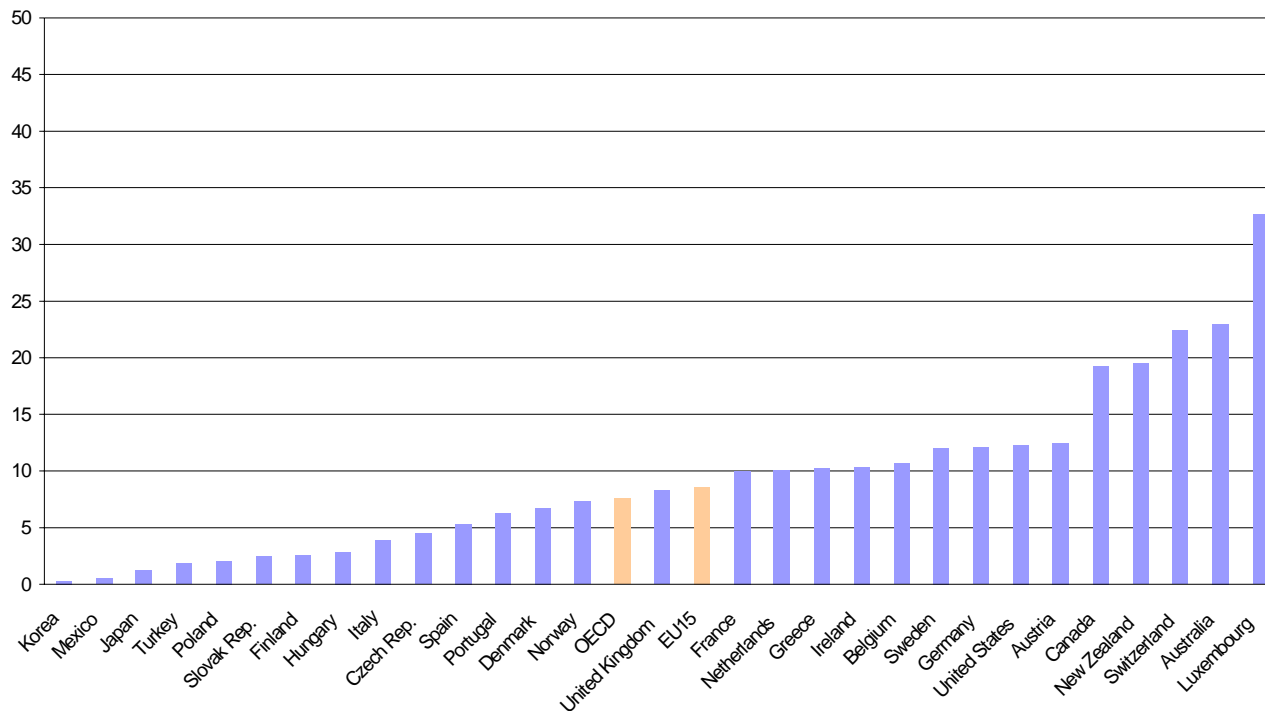
Source: OECD Economic Outlook, National Accounts and Foreign Direct Investment databases.

STYLISTED FACTS (cont.)

3. International Migration is a less prominent actor in globalisation than trade in goods and services or FDI?

- Note the distinction between stocks and flows data

Percentage of foreign-born in the total population in OECD countries, circa 2000

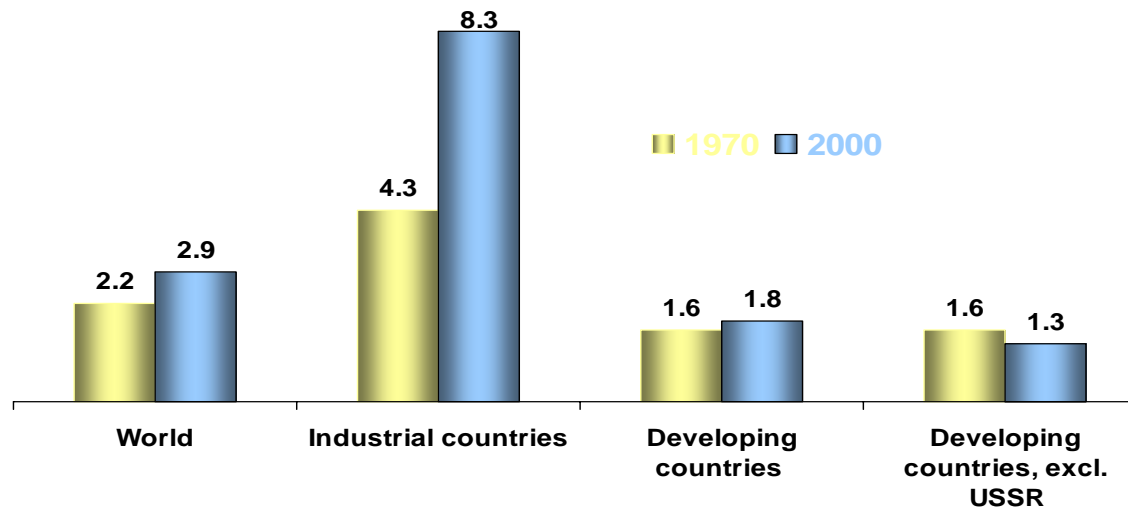


Source: OECD database on Immigrants and Expatriates (<http://www.oecd.org/migration>).

STYLISTED FACTS (cont.)

4. Different trends in International Migration between OECD countries (the "North") and non-OECD countries, especially LDCs (the "South")

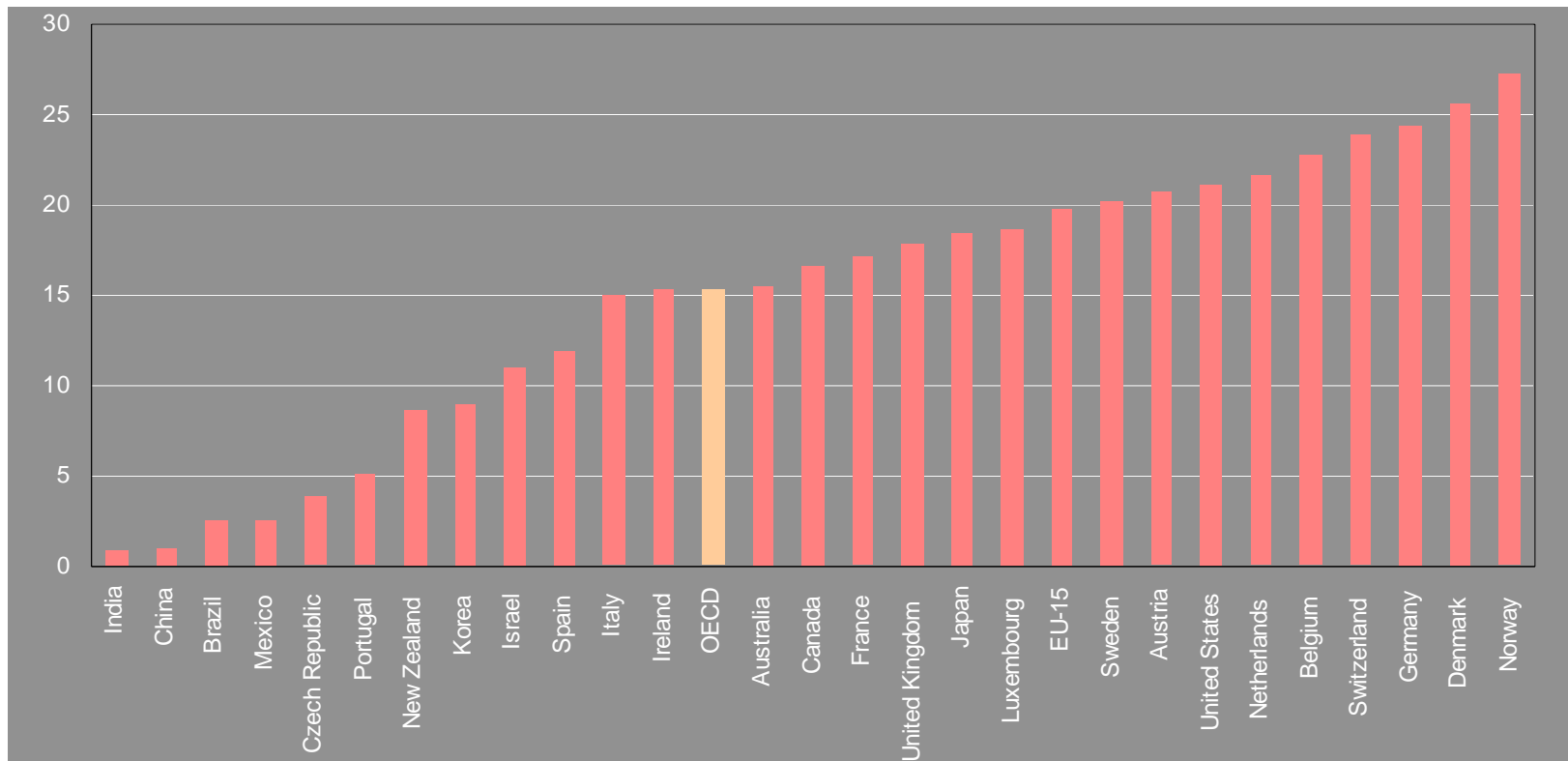
Stock of migrants as share of destination countries' population (%)



STYLISTED FACTS (cont.)

5. Wage costs are far lower in the largest developing countries than in most OECD countries, 2002

[Costs = US\$ at market exchange rates]



Source: U.S. Bureau of Labor Statistics.

STYLISTED FACTS: THE BOTTOMLINE

- Globalisation, in terms of trade openness and FDI openness has proceeded very rapidly over past 2-3 decades.
- Scale and speed of trade/FDI openness dwarfs that of international migration stocks
 - Suggests larger obstacles to greater flows of people across borders than of goods and FDI flows
- But wage gaps are very large between OECD countries and many non-OECD source countries for migrants.
 - Financial incentives to migrate are large

WHAT DOES ECONOMIC THEORY SAY ABOUT THE LINKS BETWEEN TRADE, FDI AND MIGRATION?

- **Standard Trade Models:**
 - Heckscher-Ohlin-Samuelson (HOS) model;
 - Ricardo-Viner (RV) specific-factors model

- **“New” trade models**
 - Imperfect competition/increasing returns to scale à la Helpman-Krugman (HK) models

HOS MODEL

■ Brief recall of the basics of this model in its 2x2x2 format

- Key role of factor endowments (L,K)
- Normally, factors are fully mobile within countries, but immobile between them

■ Main theorems of HOS model:

- i. Heckscher-Ohlin theorem: links factor endowments to the direction of trade
- ii. Rybczynski theorem: links changes in the endowment of only one factor to the patterns of output and trade
- iii. Stolper-Samuelson theorem: protection/trade liberalisation will impact the distribution of factor incomes, producing winners and losers
- iv. Factor price equalisation (FPE) theorem: free trade can equalise absolute as well as relative factor prices under certain assumptions.

HOS MODEL (cont.)

- FPE plays a major role in the trade-factor mobility nexus in the HOS model

- Stringent assumptions required for FPE to occur:
 1. Production functions identical and linear homogeneous in both countries;
 2. No factor-intensity reversals;
 3. Both goods are always produced in all countries i.e. incomplete specialization; and
 4. No tariffs, transport costs or other impediments to trade.

- If these conditions hold, free trade equalises real wages, capital rentals in a world of no international migration.

HOS MODEL (cont.)

- Key prediction of the HOS model is that trade liberalisation and international migration are substitutes.
 - This insight due to Mundell (1957)
 - It rests on:
 - i. The links between good prices and factor prices;
 - ii. The hypothesis that factors move between countries in response to factor-price/income differentials:
 - iii. No significant costs to international factor mobility.

- Differences in goods prices between countries (due to tariffs, transport costs, etc) map into proportionally larger factor price differences
 - The Jones (1965) "magnification effect": If $\hat{P}_x > \hat{P}_y$, i.e. the relative price of good x increases and X(Y) is the labour (capital) - intensive good, then

$$\hat{w} > \hat{P}_x > \hat{P}_y > \hat{r}$$

(the "hat" notation represents relative changes).

HOS MODEL (cont.)

- With free and costless mobility of factors and all the conditions necessary for FPE satisfied, story is straightforward:
 - Factor movements between countries respond to the factor price differences until FPE is achieved.
 - Since costless factor mobility → identical relative factor endowments in both economies → FPE
 - Factor mobility between countries substitutes for trade.
- Thus, the basic H-O-S model, as outlined by Mundell (1957), lies behind the reasoning that trade liberalisation/FDI should reduce the incentives for labour migration.
- But this prediction rests on stringent assumptions which often do not hold in reality; empirical evidence suggests that trade patterns are determined by other factors as well as endowments.

HOS MODEL (cont.)

- What happens if we relax the assumption of identical technologies in all countries?
 - Markusen (1983) considers this within the context of the HOS model.
 - Cross-country productivity gaps vary across sectors. Assume that countries 1 and 2 have identical factor endowments, but that country 1 has a Hicks-neutral productivity advantage in the K-intensive sector.
 - Country 1 exports (imports) the K-intensive (L-intensive) good → raising rental in country 1 and lowering the real wage in that country; country 2 exhibits the opposite patterns. This creates an incentive for L to move from country 1 to 2 and K to flow from country 2 to 1. Each country receives more of the factor used intensively in the production of its export good. Hence, the volume of trade expands.
- Thus, trade and factor mobility are complements.

RICARDO-VINER (RV) SPECIFIC-FACTORS MODEL

- One important assumption of the H-O-S model is that K,L are used in both sectors and there is perfect intersectoral mobility of both factors.
- But in reality K&L are often specific to sectors, especially over the short and medium-runs.
- This is encapsulated in the R-V model - see Jones (1971), Neary (1995)
 - This richer model permits complementarity of migration with trade liberalisation under certain circumstances.

RV Model (cont.)

- In the R-V model, suppose L is specific factor. There are now 3 factors: K, L_x, L_y .
 - In short and medium-run, the wage will not be equalised between sectors X and Y , but capital rental will be.

If $\hat{P}_x > \hat{P}_y$,

Short (medium-run) "magnification" effect on factor rewards =

$$\hat{w}_x > \hat{P}_x > \hat{r} > \hat{P}_y > \hat{w}_y$$
 - Specific factor in the sector whose relative price has increased, gains in terms of both goods, specific factor in other sector loses in terms of both goods, while mobile factor gains in terms of one good but loses in terms of the other good (i.e. the effect on the real capital rental is ambiguous).
- What does this imply for labour migration?
 - It all depends on which of the 3 factors are internationally mobile.

RV Model (cont.)

- Take the case where both types of specific labour are internationally mobile and K is not as one example. We assume that the pre-trade-liberalisation equilibrium has country 1 exporting X and importing Y .
- With trade liberalisation, $\hat{P}_x > 0$. Thus, L_x will flow from country 2 to country 1, and L_y will flow from country 1 to country 2.

2 noteworthy points:

- i. These factor flows make the relative factor endowments of countries 1 and 2 more different: country 1 becomes more L_x - intensive, while country 2 becomes more L_y - intensive.
- ii. Volume of trade increases, due to both the direct effect of trade liberalisation, but also indirectly from specific factor flows between the 2 countries.

RV Model (cont.)

- Net result with the R-V model is possible complementarily between trade liberalisation and labour (factor) migration:
 - a) Trade liberalisation can cause inflow of the intersectorally mobile factor (if the liberalising sector is a relatively intensive user of that factor); and
 - b) Trade liberalisation can cause flows of specific factors that make economies more different (as it may cut the return to an economy's scarce, and import-competing, factor).

Increasing-Returns-to-Scale Models à la Helpman-Krugman

- Both HO-S and R-V models assume constant returns to scale/perfect competition.
- What happens to the links between factor mobility and trade liberalisation if we relax this assumption?
- See Venables (1999) for such a model in which one of the 2 sectors, X, is characterised by imperfect competition in both countries.
- He shows that absolute, as well as relative, factor endowments are now important in determining factor prices:
 - Production costs depend on absolute endowments; a large economy will produce more X goods and this reduces their prices;
 - Market size matters: firms tend to locate in the market with largest spending on X goods
 - A cost-of-living effect: the larger economy tends to have a lower price for differentiated goods, and hence a lower cost-of-living index. This raises real factor rewards in the larger economy.

Increasing-Returns-to-Scale Models à la Helpman-Krugman (cont.)

■ Predictions from this model:

- i. If both factors are mobile, there will be complete concentration of economic activity in one location, i.e., the country characterised by the increasing returns and the largest economy; or
- ii. If one factor is mobile and the other immobile, trade liberalisation increases the differences between the two economics, as it raises the return to concentration of the increasing returns industry - a "core-periphery" outcome à la Krugman (1991).

■ Net result:

- With imperfect competition, there is no presumption as to whether trade liberalisation and labour migration are substitutes or complements
- Only one of the three standard models of international trade gives an unambiguous prediction, the H-O-S model if all the conditions for FPE hold.

THE MATCH BETWEEN ECONOMIC THEORIES AND REALITY

Consider NAFTA

- One of the arguments used to sell it was that trade liberalisation would spur Mexican growth and lead to converging real income per capita with the US, hence choking off both legal and illegal immigration into the US.
- This has not happened so far even though trade and FDI flows have boomed between US and Mexico

■ Irish-UK Case

- Rise of the Atlantic economy between 1870 and 1940 - see Collins, O'Rourke and Williamson (1997).
- EU enlargement: a fascinating case study in the making - see Boeri and Brucker (2005).
- BOTTOMLINE: Does not look so good for the empirical relevance of the H-O-S model. Factor endowments alone are not the basis for trade.

4. Trade in Services and Migration: GATS and MODE 4

- Trade liberalisation extending slowly to trade in services - the General Agreement on Trade in Services (GATS); internal services directive in the EU.
- Trade in services has particular implications for labour migration.
- GATS distinguishes 4 possible modes in which services can be traded across borders:
 - Mode 1 (cross-border supply), the service crosses the frontier;
 - Mode 2 (consumption abroad), the service is consumed in the country of the supplier;
 - Mode 3 (commercial presence), the service supplier sets up a business in another country to supply the service there;
 - Mode 4 (presence of natural persons), the service supplier moves temporarily to another country for the purpose of supplying the service.
- Mode 4 involves the movement of service workers between countries

Current examples of Mode 4

- Performers and performing artists
- Sports (wo)men
- Architects and engineers on overseas projects
- Construction workers on contracts
- ("Polish") plumbers doing temporary jobs in other EU countries
- Intra-company transferees

Characteristics of Mode 4 movements from a migration / labour market perspective

- Temporary
- Involve cross-border transactions
 - Person providing the service
 - Has his/her centre of business abroad or
 - Is employed abroad
 - Types of provision: Self-employed / under contract / intra-group services
- Form of offshoring/outsourcing of services

Much confusion and politics over Mode 4

- Claims that temporary migration of foreigners to take on jobs is "trade in services".
 - Metaphorical phrase "export of labour" is understood literally → i.e. cross-border movements of labour constitute trade in labour services
 - View that a contract of employment in another country is a contract to provide "labour services"
 - Some LDCs do not see much prospect for their workers in contract provision → want to use GATS to open up possibilities of more temporary flows of low-skilled workers to OECD countries.

What is current situation?

- On basis of past commitments and current offers, it seems that OECD countries consider as Mode 4:
 - In scope: movements involving service provision under contract with external firms or through self-employment
 - Out of scope: movements to take up employment
 - Sole exception: United States H1B commitment
- Intra-group movements
 - Thus far involve only the highly skilled
 - Some suggestions that these be opened up to lower skill levels

Issues to consider

- Distinguishing in permit systems between temporary movements under foreign employment contracts and temporary movements to take up domestic employment contracts
 - Raises the "social dumping" fear
- The development of criteria to identify intra-group service provision
- Establishment of a time limit on duration of presence of service providers

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* denotes technically advanced material.