EUCONAS

SEMINAR 11.
Economics in the EU

28 September 2021

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Part II

The Microeconomics and Macroeconomics of European Integration

With the support of the
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Outline Part II

- **International trade**
  - **Who trades with whom? The gravity model**
  - International trade theory
  - The effects of preferential liberalization
- Market size and scale effects
- Growth effects and factor market integration
- International factor movement
  - International labour mobility
  - Foreign direct investment and multinational firms
  - International capital market
- Location effects and economic geography

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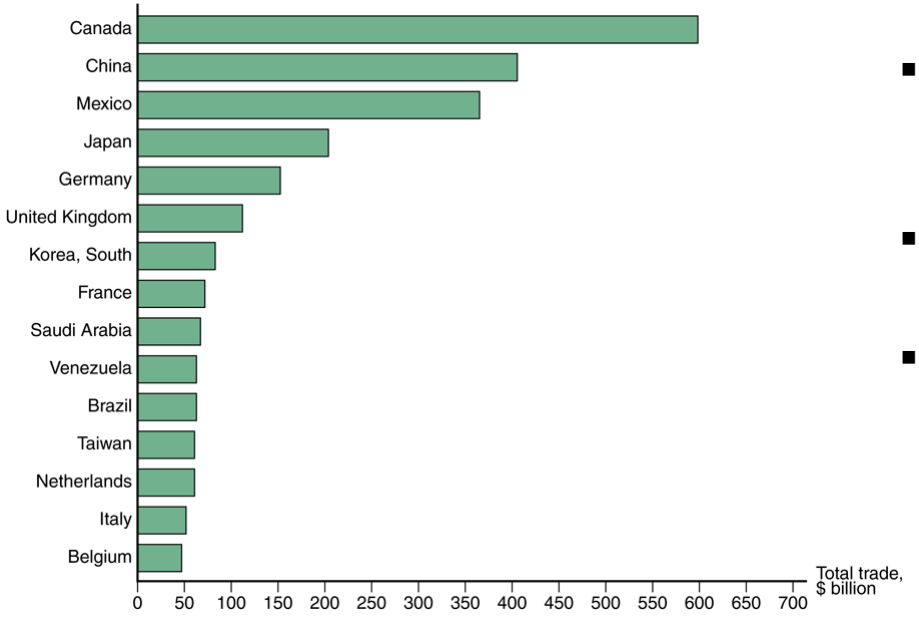
Who trades with whom?

Figure: Total U.S. trade with major partners, 2008



- This figure shows the total value of trade (X+M) between the United States and its top 15 trading partners in 2008.
- Why did the United States trade so much with these countries?
- Let's look at the factors that determine who trades with whom.

*This figure has been extracted from Krugman et al (2012), page 11.

Source: U.S. Department of Commerce.

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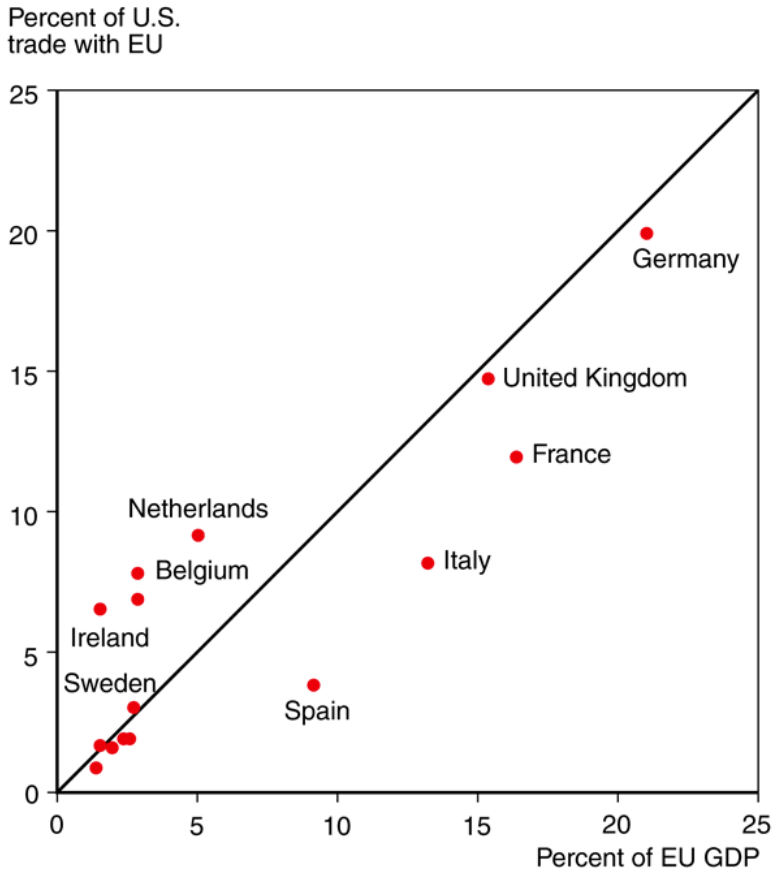
Who trades with whom?

Figure: The size of European economies and the value of their trade with the United State (2008)



- This figure shows the relationship between the size of different European economies and those countries' trade with the United States.
- Horizontal axis: each country's GDP (expressed as a percentage of the total GDP of the European Union)
- Vertical axis: each country's share of the total trade of the United States with the European Union.
- The scatter of points clustered around the dotted 45-degree line, that is, each country's share of U.S. trade with Europe was roughly equal to that country's share of Western European GDP.

*This figure has been extracted from Krugman et al (2012), page 12.

Source: U.S. Department of Commerce.

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The gravity model

Looking at world trade as a whole, economists have found that an equation if the following form predicts the volume of trade between any two countries:

$$T_{ij} = A\frac{Y_i \times Y_j}{D_{ij}} ,$$

where T_{ij} is the value of trade (exports or imports) between country i and country j, A is a constant, Y_i is country i's GDP, Y_j is country j's GDP, and D_{ij} is the distance between the two countries.

- The value of trade between any two countries is proportional, other thing equal, to the product of the two countries' GDP, and diminishes with the distance between two countries.
- This equation is known as a **gravity model** of world trade.
  - Newton's law of gravity

Economist often estimate a somewhat general gravity model of the following form:

$$T_{ij} = A\frac{Y_i^{\alpha} \times Y_j^{\beta}}{D_{ij}^{\delta}} .$$

Parameters $(A, \alpha, \beta, \delta)$ can be estimated by taking logarithms:

$$\ln T_{ij} = \ln A + \alpha \ln Y_i + \beta \ln Y_j + \delta \ln D_{ij} + \varepsilon_{ij}$$

Why does the gravity model work?

- Large economies tend to spend large amounts on imports because they have large incomes.
- Large economies tend to attract large share of other countries' spending because they produce a wide range of products.
- So, other things equal, the trade between any two countries is larger, the larger is either economy.
- But there are more factors that determine the trade flows.

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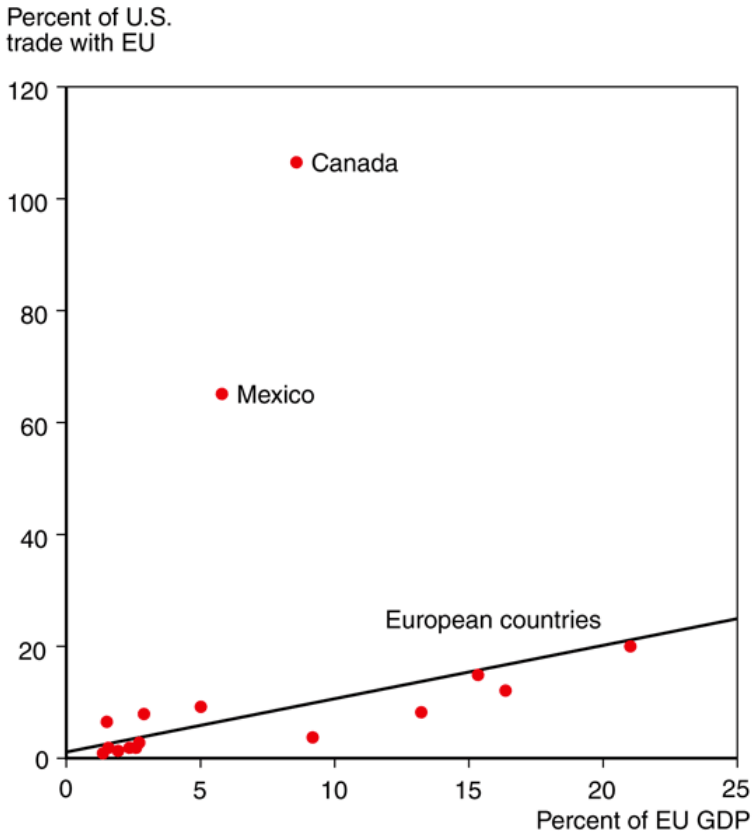
The gravity model

Figure: Economic size and trade with the United States (2008)



- Figure 2: Belgium, Ireland, and The Netherlands trade considerably more with the United States than the gravity model would predict. Why?
- Figure 3 shows the same data as Figure 2 but adds two more countries: Canada and Mexico.
- Canada and Mexico do a lot more trade with the United States than European economies of equal size. Why?
  - Distance. They are neighbors of the United States.
  - Trade agreement. The North American Free Tarde Agreement (NAFTA).

*This figure has been extracted from Krugman et al (2012), page 14.

Source: U.S. Department of Commerce.

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What things matter for trade?

1. The size of the economies.
2. Distance between markets
   - Transport cots
   - Other costs: personal contact and communication
   - Distance has a negative effect on trade flows, but this effects has grow weaker over time due to modern transportation and communication.
3. Trade blocs (tariffs are eliminated).
4. Cultural affinity: Is two countries have cultural ties, it is likely that they also have strong economic ties.
5. Geography: Ocean harbors and a lack of mountain barriers make transportation and trade easier.
6. Multinational corporation: Corporation spread across different nations import and export many goods between their division.
7. Border: Crossing border involves formalities that takes time and perhaps monetary cost (like tariffs).
   - Implicit and explicit cost reduce trade.
   - The existence of borders may also indicate the existence of different languages and cultures
   - The Canadian–U.S. border

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Important concepts and trade theories

Video: “How beneficial is world trade?”

Questions

A) Define the following concepts:

- North-South trade, North-North trade, South-South trade
- inter-industry trade, intra-industry trade
- opportunity cost
- high-tech goods
- wage gap

B) Why do countries engage in international trade? Explain

C) Why could free trade be beneficial for countries? Explain

D) Why could free trade be detrimental for the domestic country? Explain

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Important concepts and trade theories

A) Define the following concepts

North-South trade: Trade between developed and undeveloped countries.

North-North trade: Trade between two developed countries.

South-South trade: Trade between two developing countries.

Inter-industry trade: Trade in different sectors (raw material and machinery)

Intra-industry trade: Trade in similar products, trade within industries (car industry).

Opportunity cost: Forgone opportunity to produce another good.

(Units)	Worker country A	Worker country B	Opportunity cost	
			Worker country A	Worker country B
Jeans	10	6	2 cars	1 car
Cars	20	6	0.5 jeans	1 jean

High-tech goods: Goods that are produced with sophisticate technology.

Wage gap: Wage divergence between white and blue workers. The evidence shows that it is due to the technological advantages in the high-skilled labor industries.

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Important concepts and trade theories

B) Why do countries engage in international trade? Explain

There are two main reasons:

1. Countries are different from each other. → Comparative advantage arise because of

    Differences in labor productivity (Ricardian model)

    Differences in countries' resources (Heckscher-Ohlin model)

These models are useful to explain:

    North-South trade

    Intersectoral trade

2. New trade theory

Imperfect competition and increasing returns to scale (economies of scale) may be key in explaining the actual features of trade flows.

    North-North trade

    Intra-industry trade (car industry)

Product differentiation

Size will become a determinant of comparative advantage

Krugman received the 2008 Nobel Prize for these developments.

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Important concepts and trade theories

C) Why could free trade be beneficial for countries? Explain

Potential gains from trade: ↑ production → ↓ average cost → ↓ prices → ↑ product varieties (It makes products more attractive for consumers).

Trade is welfare improving

Developed countries produce and trade more differentiated goods while developing countries produce and trade less differentiated goods.

D) Why could free trade be detrimental for the domestic country? Explain

Income distribution: wage inequality between skilled and unskilled workers.

Free trade produces some winners and some losers. The government should redistribute the profits.

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Preferential (discriminatory) liberalization

There are only three elemental effects we really need to understand in relation to preferential liberalization.

Smith's certitude	**Haberler's spillover**	**Viner's ambiguity**
Adam Smith Foreign firms gain (i.e. higher price and more exports) when tariffs against them are eliminated.	Gottfried Haberler Third nations (those excluded from the preference) must lose.	Jacob Viner Preferential liberalization might harm the preference-giving nation because discriminatory liberalization is both • *liberalization* (which removes some price wedge and this tends to improve economic efficiency and home welfare) and • *discriminatory* (which introduces new price wedges and thus tends to harm efficiency and welfare).

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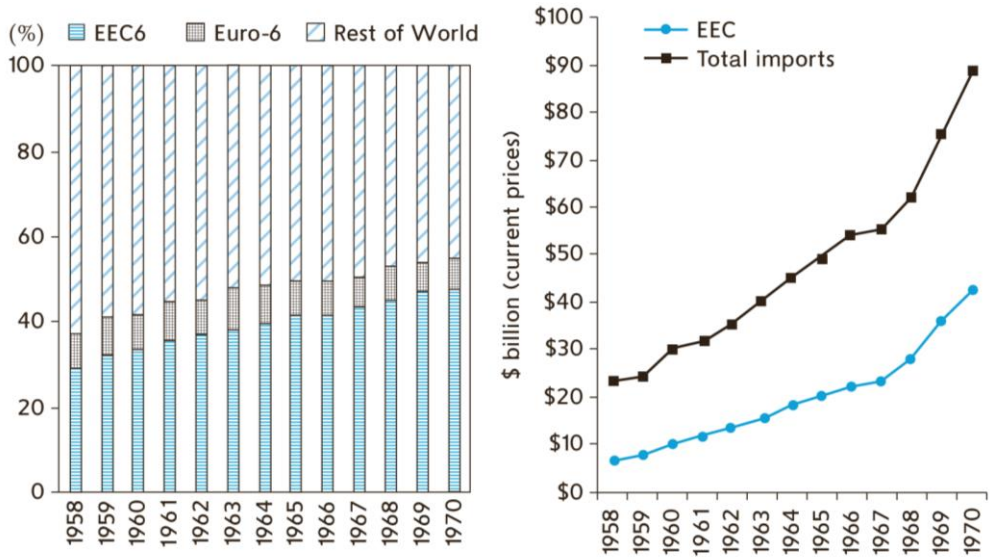
Analysis on unilateral discriminatory liberalization

Figure: Supply switching and formation of the Common Market, 1958–70



Note: The left-hand panel shows shares of the EEC6's imports from the three regions. The 'Euro-6' are the six countries that had joined the EU by the mid-1980s: the UK, Ireland, Denmark, Spain, Portugal and Greece.

Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/international_trade/introduction © European Union, 1995–2014

This figure shows the trade volume effects that occurred when the EEC6 removed their internal tariffs between 1958 and 1968.

Left panel

EEC6 removed their internal tariffs between 1958 and 1968.

The EEC6 share exports to itself rose from 30 percent in 1958 to about 45 percent in 1968.

The main displacement came from all the rest of world, mainly imports from the United States.

Right panel

Imports from all sources were in fact growing rapidly.

If the custom union had not been formed, imports from non-EEC6 members would have risen even faster.

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Empirical evidence

Gómez–Tello, A. (2015): Which commercial partners are important for the most recently admitted EU countries? *Economics of Transitions* 23(1)247–292

This article **aims** at studying empirically the consequences of the 5th EU enlargement (2004) on the new EU members' trade flows.

- **Data**: Panel at reporter-partner-sector level (1999-2011)
  - **Variables of interest**: export and import flows (nominal values)
  - **Reporters**: New EU members countries (EU2510)
  - **Partners**: 180 countries (4 groups): EU15 (15), EU2510 (10), FSU (12), ROW (143)
- **Identification strategy**: Gravity model, econometric specification, difference-in-differences, and fixed effects

Research question: Have the trade flows between the new EU members (EU2510) and the EU15 increased more than the trade flows between the EU2510 and other partners (EU2510, FSU, RWO)?

Main conclusions: After 2004 there has been a trade integration between the new EU members and the EU15 countries. BUT this integration has been higher among the new EU members (specially in the case of imports). Consequences: EU market fragmentation.

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Market size and scale effects

Discussion question:

When the Single Market Program was launched in the mid-1980s, European leaders asserted that it would improve the competitiveness of European firms vis-à-vis US firms.

Explain how one can make sense of this assertion.

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Market size and scale effects

The countries of Europe are too small to give their people the prosperity that is now attainable and therefore necessary. They need wider markets.

Jean Monnet, 1943

By its size—the biggest in the world — the single market without frontiers is an invaluable asset to revitalize our businesses and make them more competitive. It is one of the main engines of the European Union.

Jacques Delors, July 1987

Logic and facts

Europe's national markets are separated by a whole host of barriers.

- Tariffs and quotas (Common Market, 1968)
- Technical, physical, and fiscal barriers

Restriction of intra-EU trade. → EU firms can often be dominant in their home market while being marginal players in other EU markets. → Market fragmentation reduces competition, raises prices, and keeps to many firms in the market.

- It results in an industrial structure marked by too many inefficient small firms that charge high prices to cover the cost of their inefficiency.
- Owing to the absence of competition, poor and/or low quality services and goods may also accompany the high prices (think of the European telephone service before liberalization).

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Market size and scale effects

Logic and fact (cont.)

Tearing down these intra-EU barriers defragments the markets and produces extra competition.

The pro-competitive effect squeezes the least efficient firms, prompting an industrial restructuring whereby Europe's weaker firms merge or are bought out.

➢ **RESULTS: Fewer, bigger, more efficient firms facing more effective competition** from each other.

Welfare effects:

Long-term gains	Medium-term adjustment costs
Δ consumer surplus • Price effect • Quantity effect	Industrial restructuring

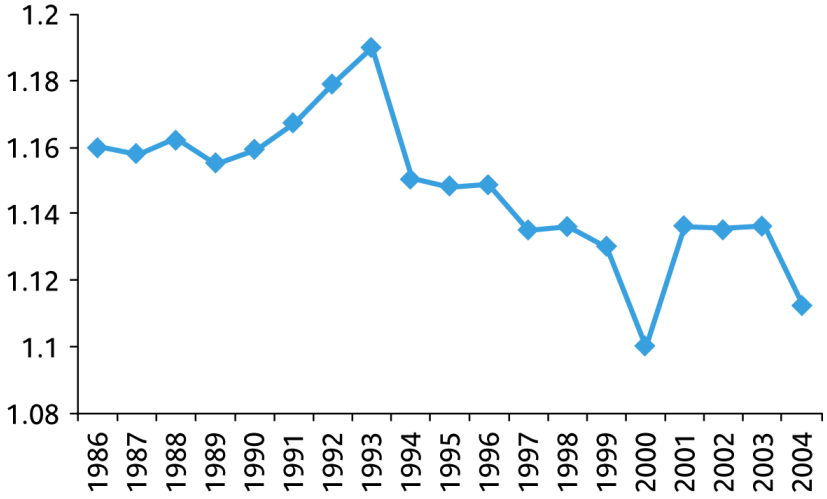
Two immediate questions:

1. As the number of firms falls, is there a tendency to collude in order to keep prices high?
2. Since the industrial restructuring can be politically painful, isn't there a danger that government will try to keep money-loosing firms in business via subsidies?

The answer to both question is "Yes"

➢ EU competition policy and state aid policy

Figure Price-cost margins for French industry, 1986–2004



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Growth effects and factor market integration

Logit of growth effects:

- Economic integration → Allocation effects → Better investment climate → More investment in machines, skills, and technology → Higher output per person → Higher welfare
  - Allocation effects: Efficiency in which economic resources are allocated across economic activities.
  - Investment → Capital accumulation
    - Three categories of capital
      - Physical capital (machines)
      - Human capital (skills, training, experience)
      - Knowledge (technology)
  - Accumulation effects: Rate at which new factor of production (mainly capital) are accumulated.

Medium-term growth effects	Long-term growth effects
Physical capital Diminishing returns to scale. The rise in output per person eventually stops at a new, higher level. Empirical evidence.	Knowledge capital No diminishing returns to scale. Permanent change in the rate of accumulation, and thereby a permanent change in the rate of growth.

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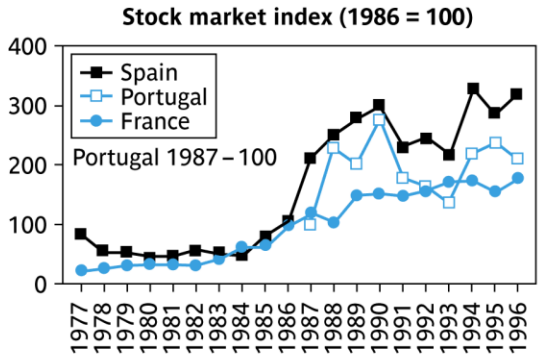
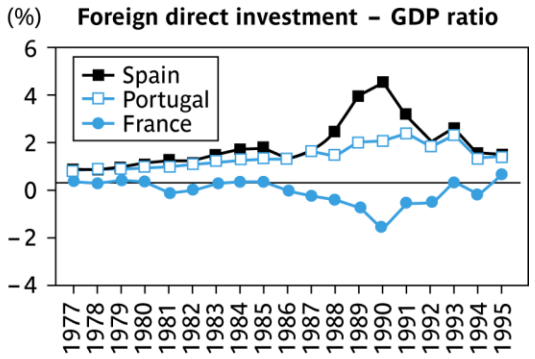
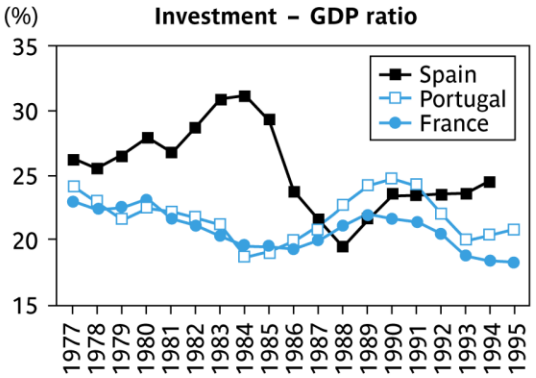
Growth effects and factor market integration

Medium-term growth effect: EU accessions (Spain and Portugal)







Control country: France

Variables:

- Stock market index
- FDI/GDP
- I/GDP

Growth in Portugal and Spain picked up rapidly and stayed high both during the negotiation and after the accession.

Net FDI

The prospect of membership and domestic market-oriented reforms boosted the attractiveness of Spain and Portugal as industrial location.

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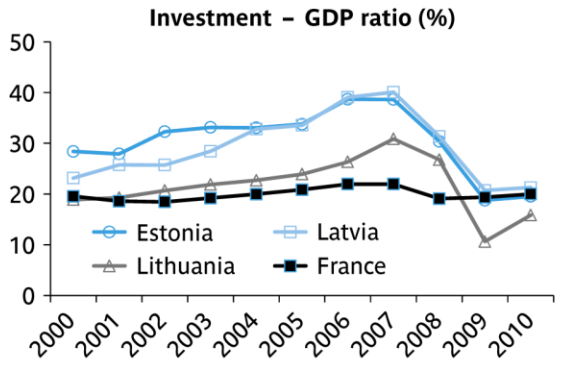
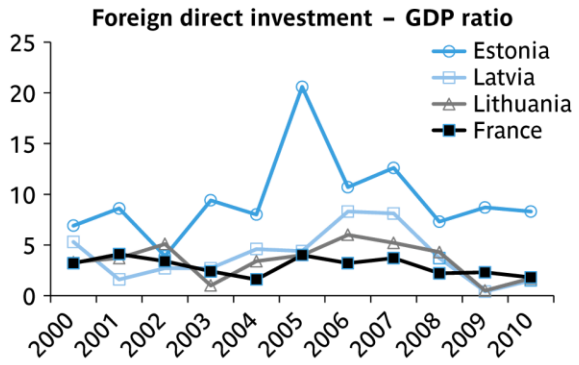
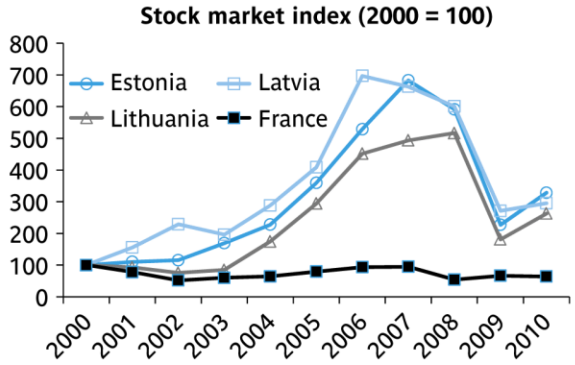
Growth effects and factor market integration

Medium-term growth effect: EU accessions (Estonia, Latvia, and Lithuania)







Latvia, Lithuania, and Estonia were republic of the USSR until 1991. Upon independence they approached the EU to establish close ties.
Transition from planned economy to market economy.

From 2000 we see the clear signs of investment-led growth.

FDI and Estonia

Estonia had shared lingual, historical, and geographical ties with Finland

Stock markets

As EU membership approached, investors bid up the price of Baltic companies (sign that EU accession was improving the investment climate).

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Growth effects and factor market integration

Discussion question

In most analysis, growth in per-capital GDP is taken to be a good thing.

Critique GDP as a measure of economic welfare.

Be sure to consider issues of income distribution and leisure time.

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European labour market: a brief characterization

- Labor is a country's most precise input.
- For more people, a good job is an essential element of a good life.
- Unemployment is a critical political and economic issue.
- Each national labor market in Europe on its own.
  - Labor market policies remain at country level.
  - Each country has its own social customs (historical heritage).
- The European labor markets are among the more inflexible in the world.
  - Low geographical mobility.
  - High labor market rigidity.
- While, on average, European labor market underperform, the situation varies considerably from one country to another.

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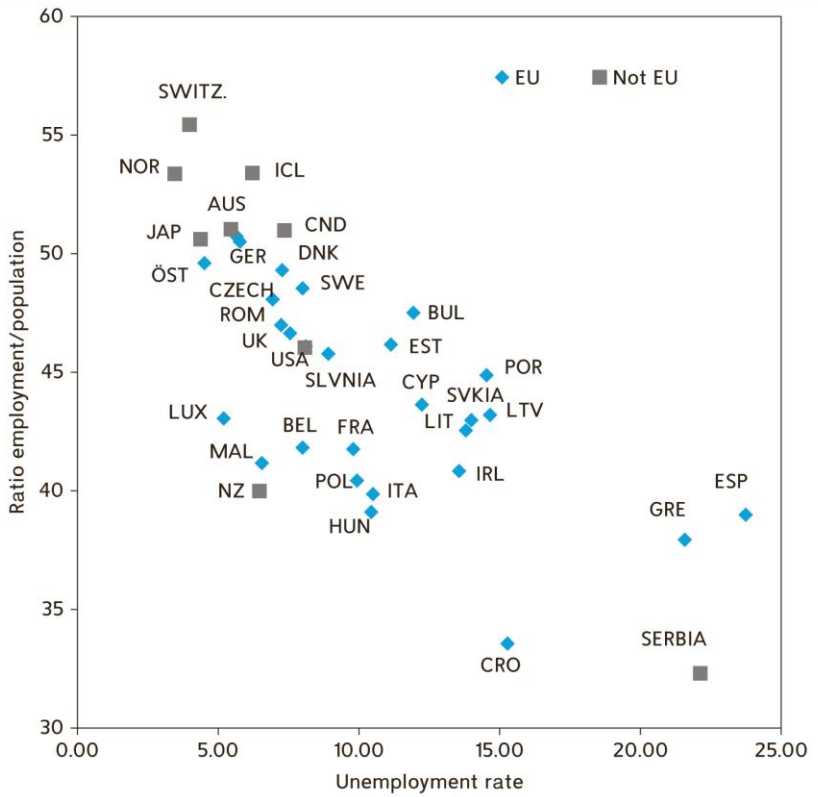
European labour market: a brief characterization

Figure 8.2 Employment-to-population ratios and unemployment rates in 2010–14: EU28 and comparable non-EU countries



Note: Averaged over the period 2010–14. The non-EU countries are Australia, Canada, Iceland, Japan, New Zealand, Norway, Serbia, Switzerland and the USA.

Source: AMECO, European Commission

- Variables:
  - ratio employment/population (y-axis)
  - unemployment rate (x-axis)
- Countries with the best-performing labor markets are closer to the top-left corner.
  - Non-EU countries: Switzerland, Norway, Iceland, Japan, Australia, Canada
  - EU countries: Germany, Denmark, Austria (ÖST)
- Countries with the worst-performing labor markets are in the bottom-right corner.
  - Non-EU countries: Serbia
  - EU-countries: Spain, Croatia, Greece

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Labour market: the principles

- The labor market is a very special market, similar to none one.

1. Salaries are not like the price of oil or corn, through bidding. They are collectively negotiated by representatives of employers and employees.
2. Negotiations take place at more or less regulated intervals and agreements hold for period that usually extend to one year or more. Thus labor markets react slowly to changing conditions.
3. Wage contracts are often regulated.
   - Worker condition: restrictions on hiring and firing, restriction on hour workers, etc.
   - Many countries have a minimum wage.
4. Unemployment benefits.

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The effects of trade integration

Discussion questions

- Do you think that the unemployment benefits disincentive the search of job?
- What are the consequences of the minimum wage? Distinguish between economic and social consequences.
- Evaluate the following argument: It is argued (and is the case in some countries) that the minimum wage should be set at different levels for the young, for the older, for the unskilled or for particular industries.

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Labour market: the principles

Minimum wage

Economic impact	Social objective
• ↑ unemployment of the least skilled	• Protect the weakest • ↓ inequality

Eurostat (2017): National minimum wages in the EU

QUESTIONS

- Is the minimum wage compulsory in the EU countries?
- Map. Do you detect any pattern in the level of the minimum wage?
- Bar chart. What is the country with the highest minimum wage? What is the country with the lowest minimum wage?
- Disparities between countries are lower/higher when we take into account the PPS? Explain,
- Table: Minimum wages in the EU (in € per month). Comment the column "Change 2017/2008." What happens in Germany?

The Economist (2013): Why the minimum wage is immigration policy

QUESTIONS

- Why do people move to Britain?
- In which sort of jobs are working most of the immigrants that arrive "without plans"?
- Explain why reinforcing labor market laws has an effect on immigration?
- Is the objective of the United Kingdom to reduce immigration?

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The effects of trade integration

Discussion question

Evaluate this advice: “The poorer EU countries should reduce their welfare programmes to better take advantage of accession.”

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The effects of trade integration

- Single market: Free movement of goods services, labor, and capital.
- In order to compete in the goods and services markets, producer must flight on all fronts.
  - Production costs
    - Labor costs (high percentage)
    - Prices of the equipment
    - Price of the material
  - Quality
  - Technology

- Competition in the goods markets has deep implications for the labor markets.
- Countries indirectly compete in labor markets.

Social dumping

- Economic integration undermines valuable social protection.
- Workers of the EU-15 countries were convinced that competition from the new member states (EU-12) will force a reduction in the level of social protection.
  - Example: Limits on working hours, obligatory retirement benefits, maternity leave, sick leave, annual holiday, etc.
- Such fears lead to call for social harmonization.
- BUT since the 1950s social protection of workers rose throughout western Europe despite the deep integration between nations that initially had very different social protection level.

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Migration

Migration within the EU is, in principle, free.

- Treaty of Rome (1957): right to work
- Maastricht Treaty (1992): right to live
- Eastern enlargement (2004 and 2007): Some restrictions to limit migration from new to old members.
- Lisbon Treaty (2009): Policies that govern labor flow from non-member nations,
    - Visa and immigration policies for non-members.

Barriers to mobility

- Still there is low mobility within the EU:
    - Different social policies;
    - Differing pensions systems;
    - Unemployment benefits;
    - Regulated professions;
    - Language, housing, health system, etc.

➢ Video: "Which country will pay my old-age pension?" (02:35)

Schegen area

- No border checks
- List of countries.
- Non-Schegen EU states: Bulgaria, Croatia, Cyprus, Ireland, Romania, and the United States.
- Schegen non-EU states: Iceland, Norway, Switzerland, and Liechtenstein

Economic and social effects

- Economic theory: Migration improves the overall efficiency of the EU economy.
- The movement of people have not only economic but also social effects.
- The fact that many young Europeans some time living, studying, or working in other EU nation has had a big impact on the way European view each other.

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Migration

What do European think about migrants?

Eurobarometer 2015

Special Eurobarometer Survey (October 2017)

Main ideas:

- Immigration has been the public's top priority since 2015.
- EU citizens distinguish between non-EU migration and free movement of EU citizens.
- Citizens overestimate both the number of immigrants residing in Europe and the proportion of illegal migrants.
- This can be explained by the way media report on immigration and integration matters.
- Media coverage can indeed play an important role in the integration of immigrants.
- According to European, there are key factors that can support integration: introduction programmes, language courses, equality and non-discriminatory measures, job search support, etc.

Broader interpretation: the notion of complementarity

- Some people think that immigration destroys domestic jobs. Is it true?
- Economic notion of "complementarity" versus "substitutability".
- Labor is heterogeneous.
- Capital could include "human capital" (highly educated workers).

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Migration

Economic effects of migration

- The article explains that the economic effects of migration vary widely.

QUESTIONS

- Comment: “The problem is not immigration, it is integration, especially in the labour market. If there are no jobs, the consequences are segregation, housing problems, and divided cities” (Traynor, 2010).
- Comment the economic effects of immigration distinguishing between sending and receiving countries, long-term, and short term.

“Immigration and economic prosperity”

(Jaumotte, Koloskova and Saxena, VOX 2017)

- The article explores the long-term effects of migration on receiving advanced countries.

QUESTIONS

- Why are the attitudes to trade different from the attitude to immigration?
- Comment the negative short-term effects of immigration on the host country? Do the empirical studies confirm these predictions?
- Explain the two channels through immigration can affect GDP per capital (long-term effect).
- Do only the high-skill immigrants raise productivity?
- Are the long-term effects unevenly distributed among the population?
- Comment: “the UN projects that without further migration, the working-age population would decline in most advanced economies over the next 15 years, due to population ageing.”

Population Pyramid

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Outline Part II

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- Growth effects and factor market integration
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  - International labour mobility
  - **Foreign direct investment and multinational firms**
  - International capital market
- Location effects and economic geography

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Definitions

Foreign direct investment (FDI)

FDI flows are made up of equity capital, reinvested earnings, and other capital associated with an intercompany debt transaction.

Any investment in which a foreign investor owns at least 10 percent of the ordinary shares of a company and that aims to establish a long-term relationship to influence the firm's management (OECD and IMF definition).

Multinational firm (MNE)

"It is an enterprise that controls and manages production establishment (plants) located in at least two countries" (Caves 1996, page 1).

MNEs are firms that engage in FDI—that is, invest abroad in order to establish a subsidiary or gain control over a foreign firm (Markusen, 2002 p. 5).

We use FDI flows to measure the presence of multinationals in the world economy (FDI as a proxy of MNEs).

But there are more accurate measures such as sales, values added (sales minus purchased intermediate goods), and employment.

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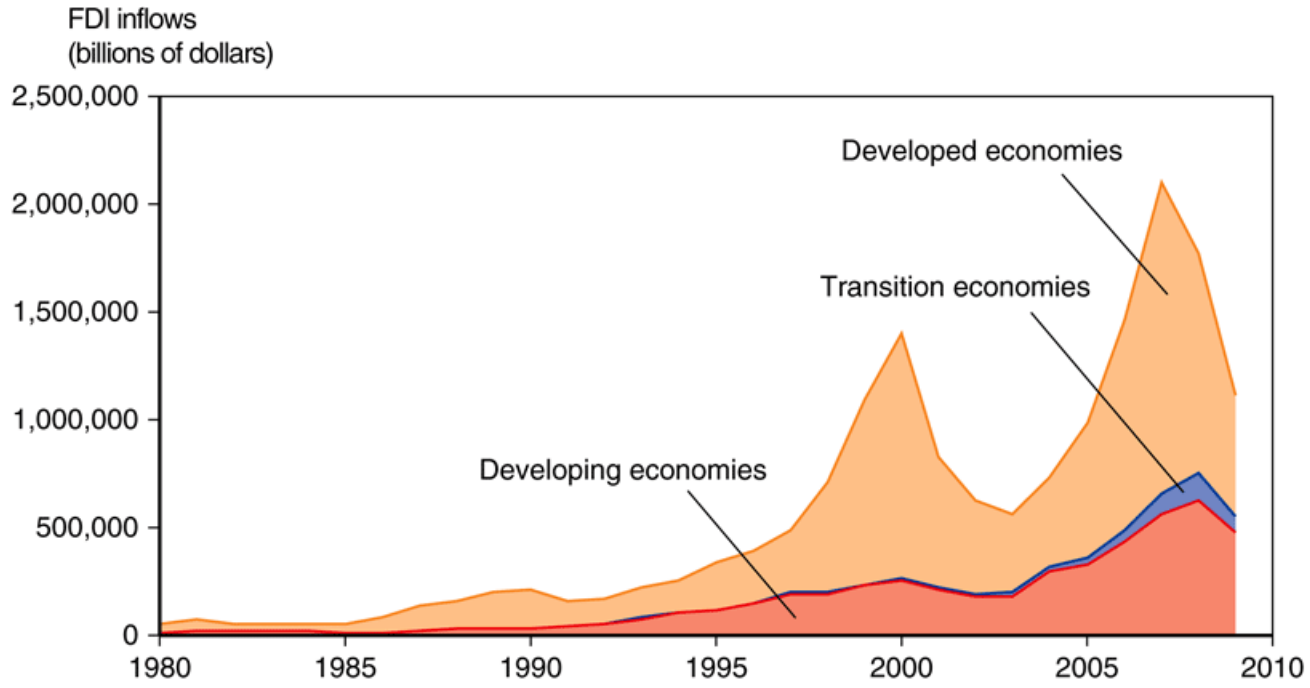
Patterns of FDI around the world

Figure: Inflows of FDI, 1980–2009 (billion of dollars)



Historically, most of the inflows of FDI have gone to developed countries. However, the proportion of FDI inflows going to developing and transition economies has steadily increased over time and accounted for half of worldwide flows in 2009.

*This figure has been extracted from Krugman et al (2012), page 181.

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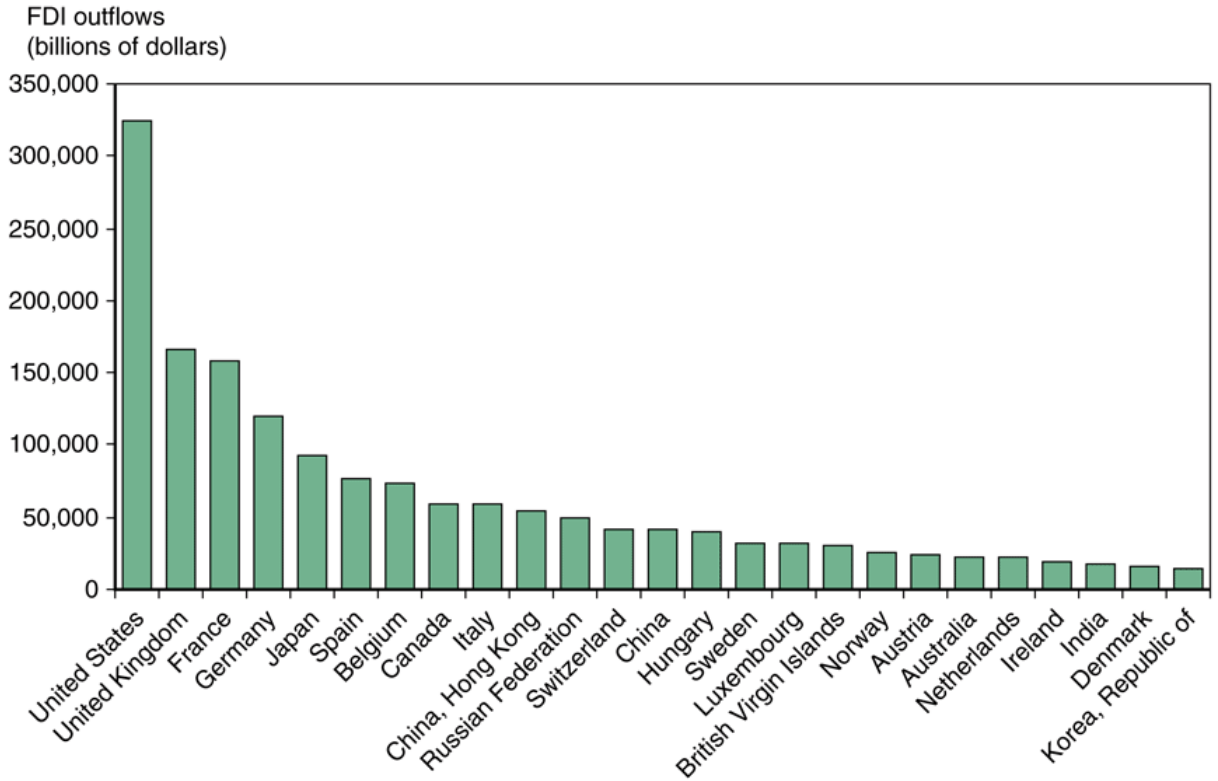
Patterns of FDI around the world

Figure: Outward FDI for top 25 countries, yearly average for 2007–2009 (billion of dollar)



Developed countries dominate the list of the top countries whose firms engage in outward FDI. More recently, firms from some big developing countries such as China and India have performed significantly more FDI.

*This figure has been extracted from Krugman et al (2012), page 181.

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Why do multinational firms exist?

Based on the starting definition this is due to the fact that a firm decides to

- Locate part of the production process in a foreign country.
- Take a "controlling" equity stake in the foreign production facility.

1. Location. Why is a good produced in at least two countries rather than in just one country?

Two main reasons for MNE activity to be profit-maximizing

- Horizontal FDI: When exporting is costly, replication of the production process in a foreign market may be profit-maximization (Nestlé, Toyota),
- Vertical FDI: In the presence of factor price (cost) differences across countries, a producer may find it optimal to fragment production and undertake different parts/process in different countries.

2. Internalization. Why is production in different locations done by one firm rather than by separate firms?

- Technology licensing
- Foreign outsourcing

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Location decision: Horizontal vs Vertical FDI

Horizontal FDI

Model setup

Consider the situation of a firm that is trying to decide how to best service a foreign market.

Option 1: to increase production from the currently existing plant and export this additional amount.

Costs: trade cots (transport costs, tariffs cost, non-tariff-costs, etc.)

Option 2: To set up an affiliate in the foreign market and avoid transportation costs.

Cost: Fix cost associated with creating a new plant.

Proximity-concentration trade-off

Proximity. Horizontal FDI will tend to dominate exporting in industries in which cost of transporting the goods internationally is high.

Concentration. It is not effective to replicate the production process too many times and operate facilities that produce too little output to take advantage of those increasing returns.

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Location decision: Horizontal vs Vertical FDI

Vertical FDI

Model setup

Consider the situation of a firm that is trying to decide how to produce a final good at minimum average cots.

Production process:

- Skill-intensive process (R&D, product development,…)
- Unskilled-intensive process (assembly)

Option 1: to concentrate both processes in the same plant or location.

Option 2: To set up an affiliate in a foreign market that focuses on the production of a given process.

- Costs: Transportation costs involved in the cross-border exchange of inputs: coordination costs, communication costs, fixed costs.
- Benefits: Exploitation of cross-country differences in factor prices by shifting production process to locations where they can be carried out more cheaply.

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Location decision: Horizontal vs Vertical FDI

Vertical FDI

Prediction	VFDI
Transportation costs	-
Relative factor endowment differences across countries (which generates factor price differences)	+
Relative factor intensity difference across processes	+

Notice that

- Horizontal FDI and trade are substitutes
- Vertical FDI and trade are complement

We have discussed the location motive for production facilities that leads to multinational formation. Now we are discussing why the parent firm chooses to own the affiliate in that location and operate as a single multinational firm (internalization motive).

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Internalization: Licensing and Foreign outsourcing

Internalization	Alternatives	What is the best option?
Horizontal FDI	Technology license A parent could license an independent firm to produce and sell its products in a foreign location.	HFDI is the better option – Control over a firm's property technology. – Risk of losing some property technology. – Why an independent firm should be able to replicate that production process at a lower cost?
Vertical FDI	Foreign outsourcing A parent could contract with an independent firm to perform specific parts of the production process in the foreign location with the best cost advantage (foreign outsourcing).	Foreign outsourcing – Scale economies and efficiency. An independent firm can specialize in exactly that narrow part of the production process. – Advantages of local ownership (monitoring of management incentives). VFDI – This avoids initial agreements, contracts, etc. – This avoids costly renegotiations conflict.
Offshoring represents the relocation of parts of the production chain abroad and groups together both VFDI and foreign outsourcing. – It has increased dramatically in the last decade. – Trade in services (such as business and telecommunications services). – Trade in manufacturing (intermediate goods). – Intra-firm trade: Intermediate goods are produced within a multinational's affiliate network. – It represent one-third if worldwide trade.		

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Empirical evidence: the case of Spain

Gómez–Tello, A. (2015): *Foreign direct investment and immigration inflows in Spain,* SSRN WP 2703412

- The bulk of FDI entry in Spain has been associated with the country's accession to the European Economic Community (EEC) (Barrios and Strobl, 2002).
- During the second half of the 1980s, Spain offered location-advantages to MNEs (mostly of them related to cheaper-cost production options) and consequently the country became a major FDI receiver in Europe (Ferreiro et al., 1997).
  - During 1986–1991, Spain received 8.8 percent of all EEC FDI inflows, or the fourth most behind the UK, France, and the Netherlands, as well as 18.9 percent of total intra-EEC FDI, which was second only to the UK.
- However, since the 1990s, Spain suffered from two important external relocation of companies, namely during 1992–1999 and 2000–2007 (Myro and Fernández–Otheo, 2008).
  - The first wave involved the relocation of companies to more developed European countries in search of more sophisticated technology.
  - The second wave entailed the relocation of companies to Central and Eastern European Countries and emerging Asian countries, search of the location opportunities that could reduce production costs.

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Financial markets, single currency and crisis

The big payoff on the Euro is, of course, in the capital markets… It will move from the dull bank-based financing structure to big-time debt markets and markets for corporative equities that offer transparency for the mismanaged or sleepy European companies. Capital markets are good at kicking butt.

Rudi Dornbusch (2000), p. 42

The crisis has highlighted a fundamental inconsistency between the single monetary policy of the euro area and the responsibility of national authorities for financial policies. The single currency needs a single financial system that is not fragmented along national lines.

Mario Dragui (2012),
Frankfurt European Banking Congress

What are the effects of the single currency and the crisis on the financial market?

- Effects of the single currency: Further integration and improvement of the overall productivity.
  - More and better opportunities for savers and borrowers.
  - To save the substantial costs involved in changing currencies.
- Effects of the crisis: Fragmentation of the financial markets.

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Essentials of financial markets

Main task

To make savers and borrowers meet to achieve the best possible mutual deals.

Types

- Banks, funds, insurance companies

Banks	• Receive deposits and offer loans.
Investment banks	• Managing portfolios. • No accept deposits. • Wealthy customers.
Insurance companies	• Provide insurance (financial service). • They take deposits (insurance *premia* paid by their customers). • They use to “make loans” as they invest in financial markets. • Pension schemes, life insurance (deposits with very long maturity).
Fund management firms	• Not work with individuals. • Offer “wholesale” services to banks and insurance companies.

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Essentials of financial markets

Types (cont.)

- Markets (bonds and stock markets)

Bonds	Debts issued by firms and governments for a set of maturity at an explicit interest rate.
Stock (shares)	Ownership titles to firms. • No maturity, they last as long as the firms itself. • Lenders (investors) receive dividends, which fluctuate depending on the firms' performance.

- Primary market. Bonds and shares are created.
- Secondary market. Bonds and shares can endlessly change hands.
- Lenders (investor) usually operate through intermediaries (brokers, banks, investment banks).

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Essentials of financial markets

What do financial markets do?

- Matching lending and borrowing need: maturity
  - Lenders (short-term maturity)
  - Banks encourage its customers to choose longer deposits.
    - The bank will re-lend the deposit to another customer.
  - The savers buy bonds (with various maturities) or stocks (unlimited duration).

Interest deposit < Interest (bond or stock) → risk

- Matching lending and borrowing need: risk
  - Bonds and shares are risky.
  - Markets put a value on risk.
    - The rate of return incorporates a *risk premium*.
- Diversification
  - Pooling together assets with negative risk correlation reduce overall risk.

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Essentials of financial markets

Characteristics of financial markets

- Scale economies
  - Matching the needs of borrowers and risk diversification are both easier when there are a large number of borrowers and lenders.
- Networks
  - Financial institutions and markets can be seen as a network of borrower sand lenders
  - Network externalities: The longer the network, better it works.
- Asymmetric information
  - The borrower always knows about his own riskiness than the lender.
  - Borrowers may intentionally attempt to conceal some damaging information.
  - Regulation

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Effects of monetary union

EU policy on capital market integration

- Treaty of Rome → Free mobility of capital.
  - Several loopholes allowed EU countries to impede capital mobility.
    - To protect home financial institutions from foreign competition.
    - Many EU nations did not believe that unrestricted capital mobility was a good idea.
- The single European Act (1986)
  - It established the principle that all forms of assets should be allowed to move freely inside the EU.
  - Liberalization was implemented via a series of directives.
- Maastricht Treaty → Band all national restrictions on the movement of capital
  - Exceptions: law enforcement and national security
- Adoption of the euro → Eliminates the currency risk within the Eurozone.
  - There is no longer any far financial markets to be Finish, Greek or German.

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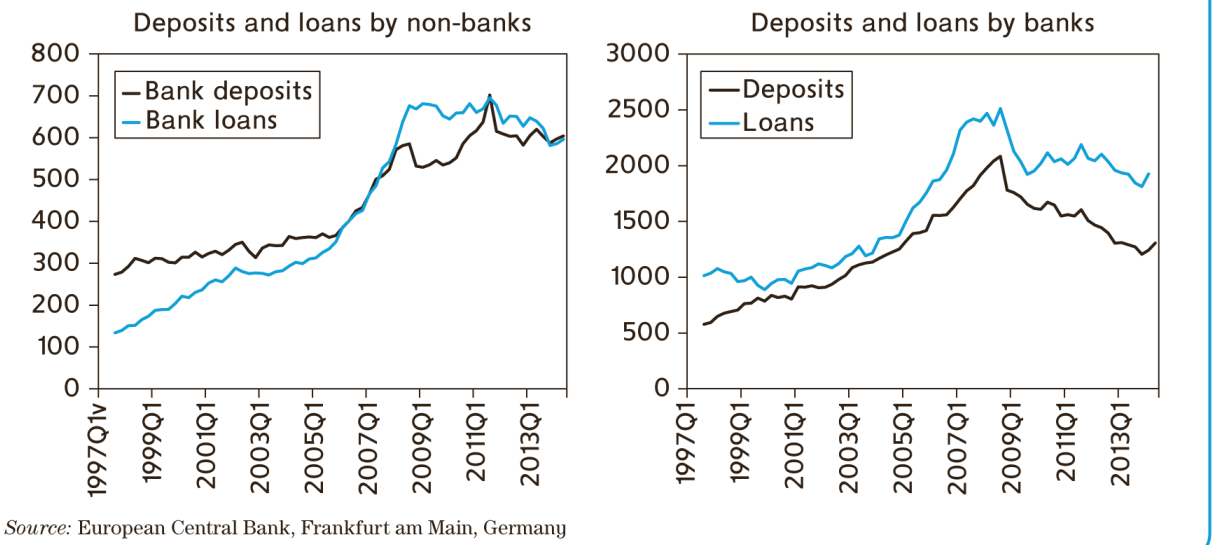
Effects of monetary union

Effects of the single currency on banks

Figure 18.2 Cross-border banking in the Eurozone, 1997–2014 (€ billions)



Source: European Central Bank, Frankfurt am Main, Germany

What has not happened are cross-borders mergers of banks within the Eurozone.

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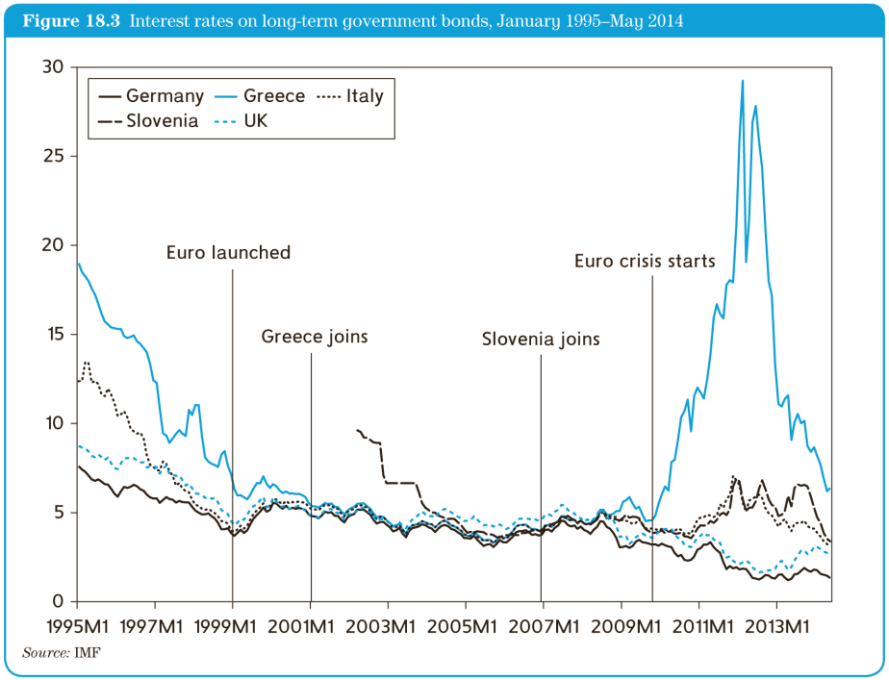
Effects of monetary union

Effects of the single currency on bond markets



Interest parity principle: When markets are well integrated, interest rates issued in different currencies differ by:

- E(exchange rates) → = 0 with the euro
- Premium reflecting different risks → = 0 until the crisis

This conjecture was fully verified until the Eurozone crisis.

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Effects of monetary union

Effects of the single currency on stock markets

Table 18.1 Size of stock markets (total capitalization), 2010

	$ bn	% GDP		$ bn	% GDP		$ bn	% GDP
France	967	38	Ireland	60	29	United States	30,455	209
Germany	686	21	Portugal	43	19	Japan	2,126	39
Italy	477	23	Austria	32	8	UK	1,864	83
Spain	462	33	Slovenia	5	10	Switzerland	554	106
Netherlands	402	51	Estonia	2	13	Hong Kong	463	206
Finland	139	58	Slovakia	2	2			
Belgium	128	27	Cyprus	2	6			
Greece	69	23	Malta	1	13			

Source: US Census Bureau

- Market capitalization: Total valuation of all firms listed on the exchange.
- In comparison to the US, Eurozone exchanges remain small.
  - The US: 15 stock exchanges (only two or three are significant).
    - New York Stock Exchange (NYSE)
  - In the Eurozone, each country insists on having its own exchange.
- To exploit scale economies: One major centre and secondary exchanges.

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Fragmentation during the crisis

Financial integration rose between 1999 and 2008 and then decline.

The crisis have led to a significant reduction in financial integration.

- Most of the loans applications were rejected.
- High differences on the interest rates on public debt.
  - German public debt: riskless

Still, the Eurozone is now significantly more integrated financially than before the advent of the euro.

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The Banking Union

The Banking Union (BU) is an essential complement to the Economic and Monetary Union (EMU) and the internal market.

It was created as a response to the financial crisis.

Three elements:

- The Single Supervisory Mechanism (SSM): to supervise the largest and most important banks in the euro area at European level.
- The Single Resolution Mechanism (SRM): to resolve failing banks failing banks in an orderly manner with minimal costs for taxpayers and for the real economy.
- A European Deposit Insurance Scheme (EDIS).

For more information:
https://www.europarl.europa.eu/factsheets/en/sheet/88/banking-union

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Financial markets

Discussion questions

- Evaluate the following view: The real reason why Eurozone countries can't agree on a single supervising agency is that each one wants to protect its own institution.
- What is the case for centralization of bank supervision in the Eurozone? The case against?
- The ECB has been given a major role in bank supervision. Is it a good thing?

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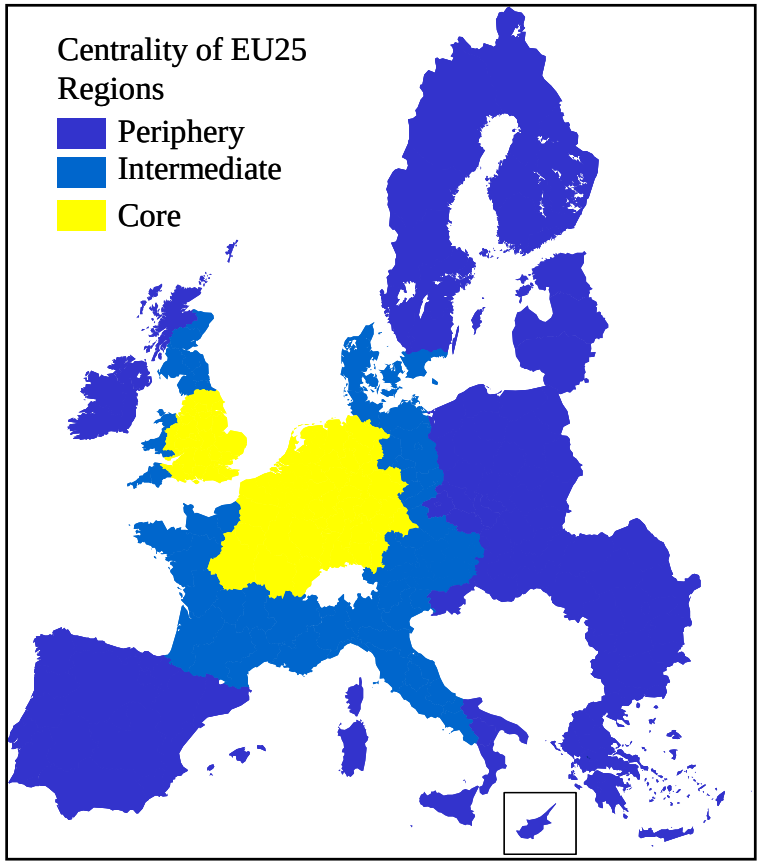
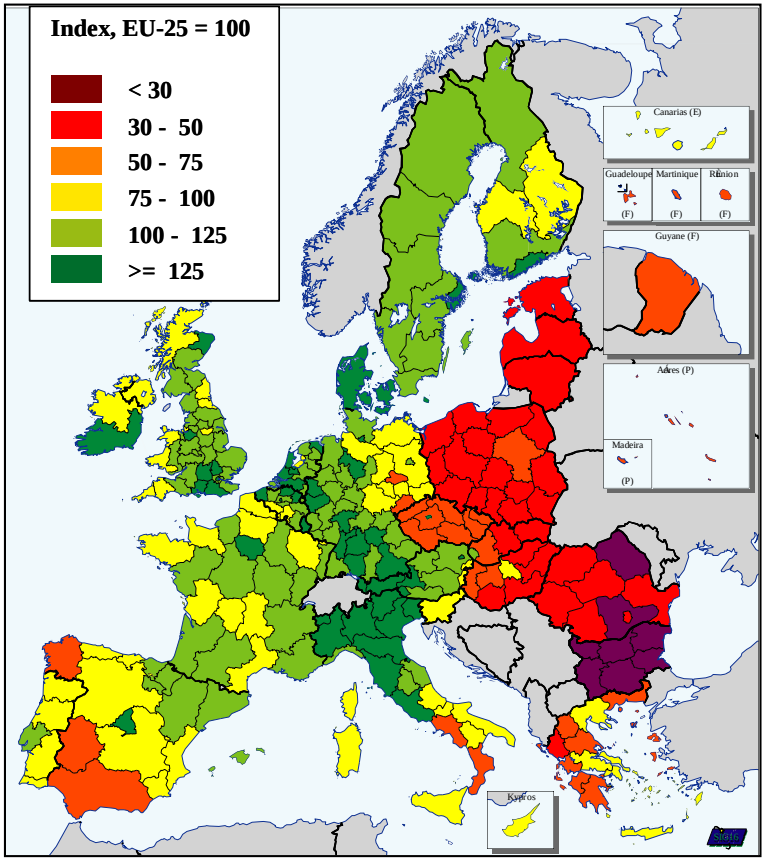
Europe's economic geography: the facts





- Core and periphery structure.
- National border are not the best way to think about economic activity in Europe.
- Regions matter.

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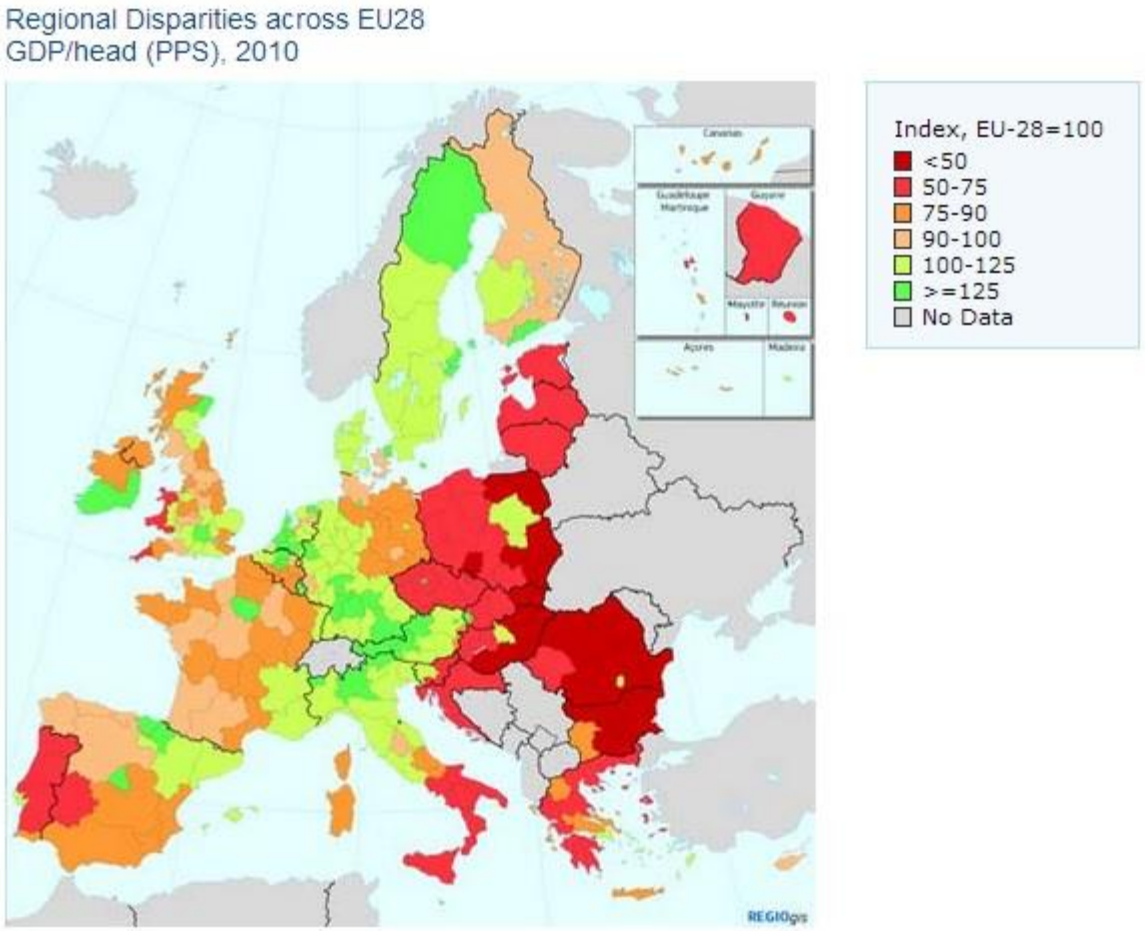
Europe's economic geography: the facts



Source : Eurostat

- Most regions in the 12 new members have incomes that are below those of the EU nations.
- Apart from the wester-most and southern-most parts of the continent, none of the EU15 regions have incomes below 75 percent of the EU27 average.
- Rich regions are clustered and form the "core" of the EU economy, as shown by regional GDP per capita (PPS) in 2010.
- High differences:
  - Poorest region: 28 percent EU average (Severozapaden, Romania)
  - Richest region: 343 percent higher that EU (Inner London, UK)

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Europe's economic geography: the facts

While the dispersion of income across nation is still very high, the gaps among EU members (EU15) have been steadily narrowing.

- ✓ Convergence among regions

However, income inequality within each EU nation has been rising.

- ✓ Divergence within nations

Gómez–Tello, A., Murgui–García, M.J., and Sanchis–Llopis, T. (2020): "Exploring the recent upsarge in productivity disparities among European regions," *Growth and Change*

- This paper analyses the evolution of income disparities across 156 European regions in the period 2000-2015.
- Main results:
  - Regional disparities are on the rise again in the EU.
  - Most regions are now closer to the average, while a small group of the richest regions are moving further away.
  - Labour productivity is the main components of income.

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Theory

Two major approaches linking economic integration to change in the geographic location of economic activity.

1. Comparative advantage suggests nations specialize in sectors in which they have a comparative advantage.
2. New Economic Geography (NEG) suggests that integration tends to concentrate economic activity spatially.

General idea:

- Use comparative advantage approach to explain cross-nation facts.
- Use NEG to explain within nation facts.

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Theory

	Comparative Advantage Neoclassical trade models (Ricardo, H-O)	**New Economic Geography**
Key factors	Natural resources Factors of productions (K,L)	Agglomeration forces (+) - demand-linkages (market size) - cost-linkages (production costs) Dispersion forces (-)
Assumptions a) scale economies b) trade costs c) factors of production	a) constant returns to scale b) zero c) immobile	a) increasing returns to scale b) positive c) mobile across regions
Economic integration	More trade. Nations do what they do best and imports the rest.	Reduction in trade costs. Concentration of the economic activity spatially. Clusters - overall clustering - sectoral clustering

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Theory part I: Comparative advantage

Comparative advantage suggests that nations specialize in sectors in which they have a comparative advantage.

Example

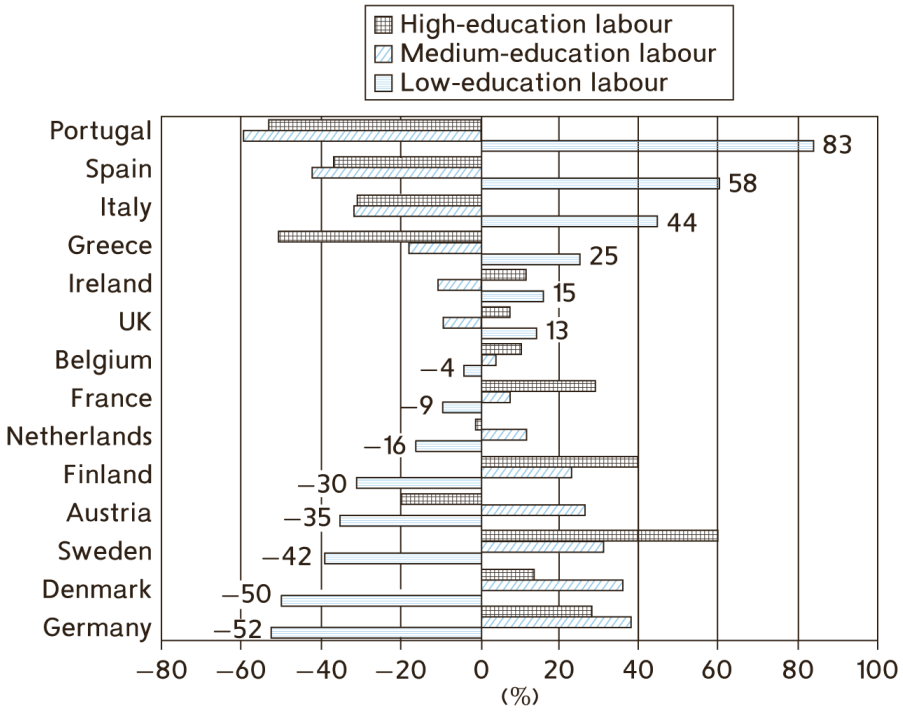
-Germany abundant in high skilled labor.

-Portugal abundant in low skilled labor.

-With trade: Germany specializes in pharmaceuticals and trades them for cloth from Portugal.

-The industrial structures of both Portugal and Germany would become more specialized.

Figure: Relative labor endowment in Europe



Source: Data from Midelfart-Knarvik et al. (2002)

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Theory part II: New Economic Geography (NEG)

Figure: Demand-linked circular causality

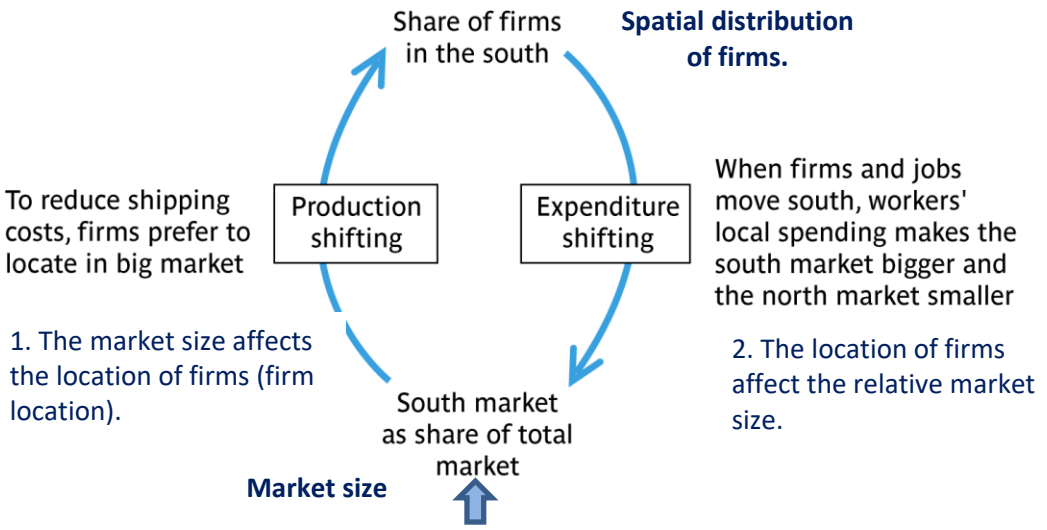
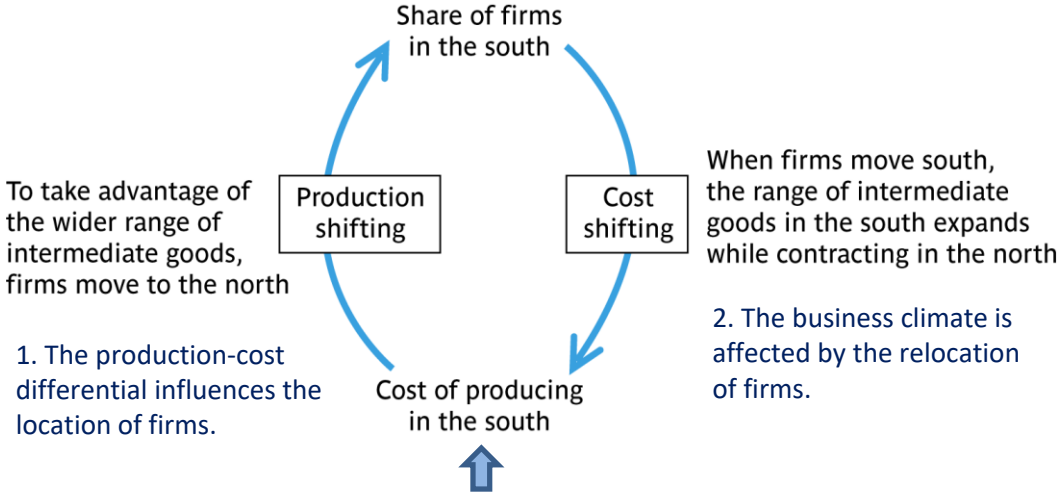


Figure: Cost-linked circular causality



New economic geography suggests that integration tends to concentrate economic activity spatially.

It is based on two pillars:

- **Agglomeration forces** encourage spatial concentration:
  - demand linkages: big markets
  - cost linkages: availability of suppliers
- **Dispersion forces** favor the geographic dispersion of economic activity (e.g., higher rent and land prices, high cost of non-traded services, competition with other firms).

Assumptions:

- South market is bigger than North market.
- Producing in the South is cheaper.

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Economic integration

- GDP per capita tends to converge nation by nation. Within nations, however, the opposite has happened.
- The lack of factor mobility across nations means that agglomeration forces are not dominant at the national level.
  - Agglomeration forces operating at the sectoral level could result in nations specializing in particular industries.
  - But in the end each nation ends up with some industry.
- By contrast, the much greater mobility of factor within a country permits *backward* and *forward* linkages to operate.
  - As one region grows, it becomes attractive to firms for demand reasons and cost reasons, so more firms and more factors move to the region, thereby fueling further growth.

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- Krugman, Obstfeld, and Melitz (2012): *International Economics. Theory & Policy*, Addison-Wesley, 9th ed.

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