Location Effects, Economic Geography and Regional Policy

Europe's regions

- Concern for Europe's disadvantaged regions has always been part of EU priorities
  - In Treaty of Rome preamble
- Pre-1986, most spending on regions was national
  - Rural electrification, phones, roads, etc.
- Entry of Spain & Portugal created voting-bloc in Council (with Ireland and Greece) that induced a major shift in EU spending priorities, away from CAP towards poor-regions
- "Structural spending" now about 1/3 EU budget

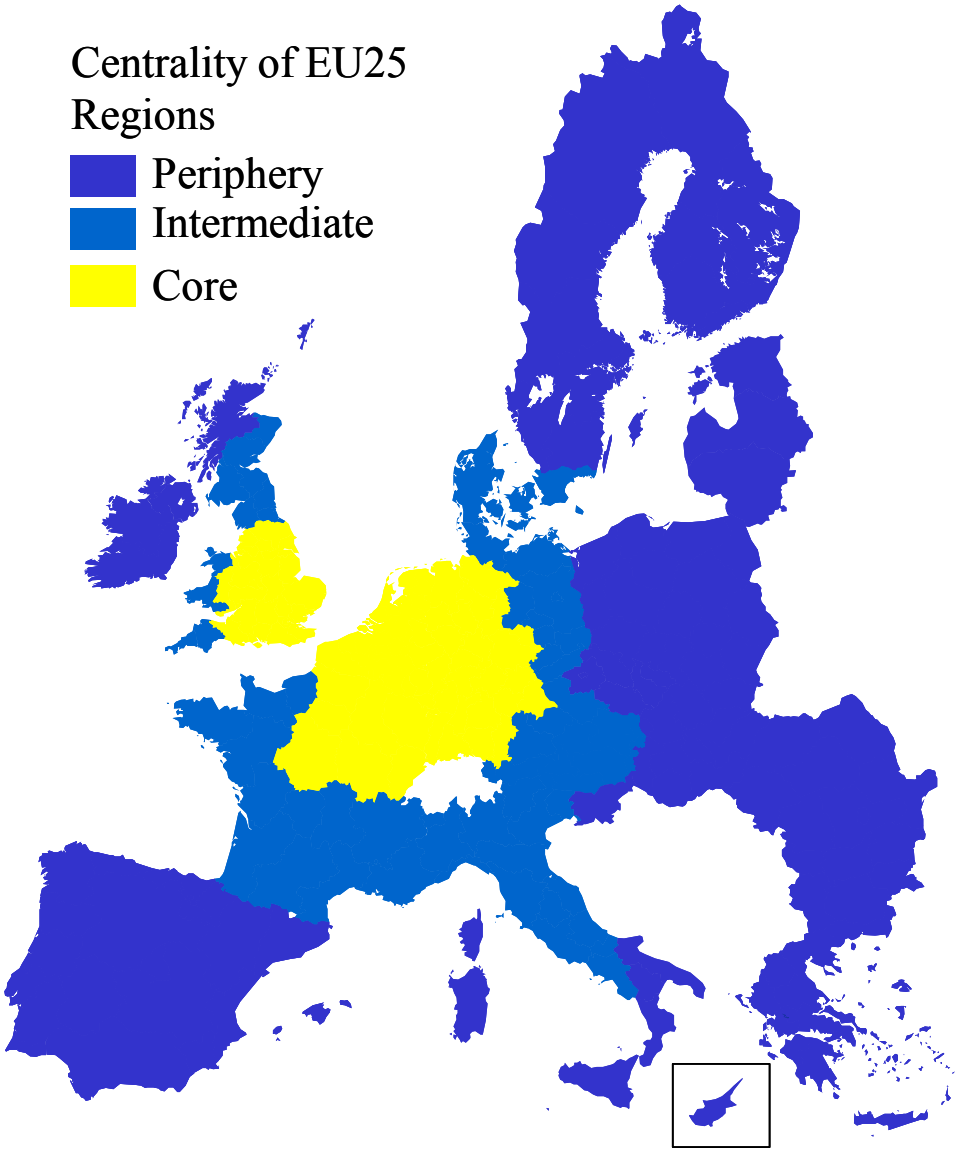
Europe's Economic Geography: Facts

Europe highly centralised in terms of economic activity.

- western Germany, Benelux nations, N.E. France and S.E. England have 1/7th land, but 1/3rd of pop. & ½ GDP

Periphery has lower standard of living

- More unemployment
  - Especially among youth
- More poverty



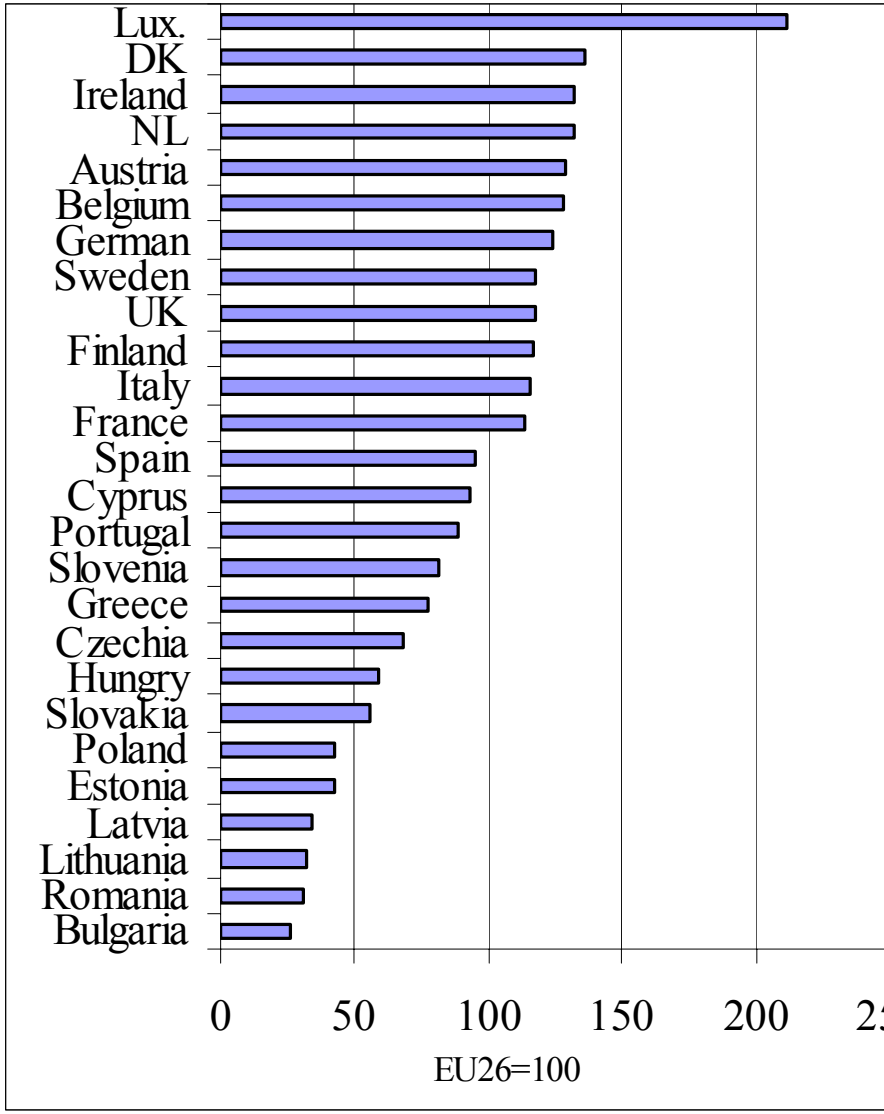
Geographic income inequality

Very uneven income distribution, geographically

1999 income/pop by nation

Luxembourg is 110% richer than average

Bulgaria only 26% of average



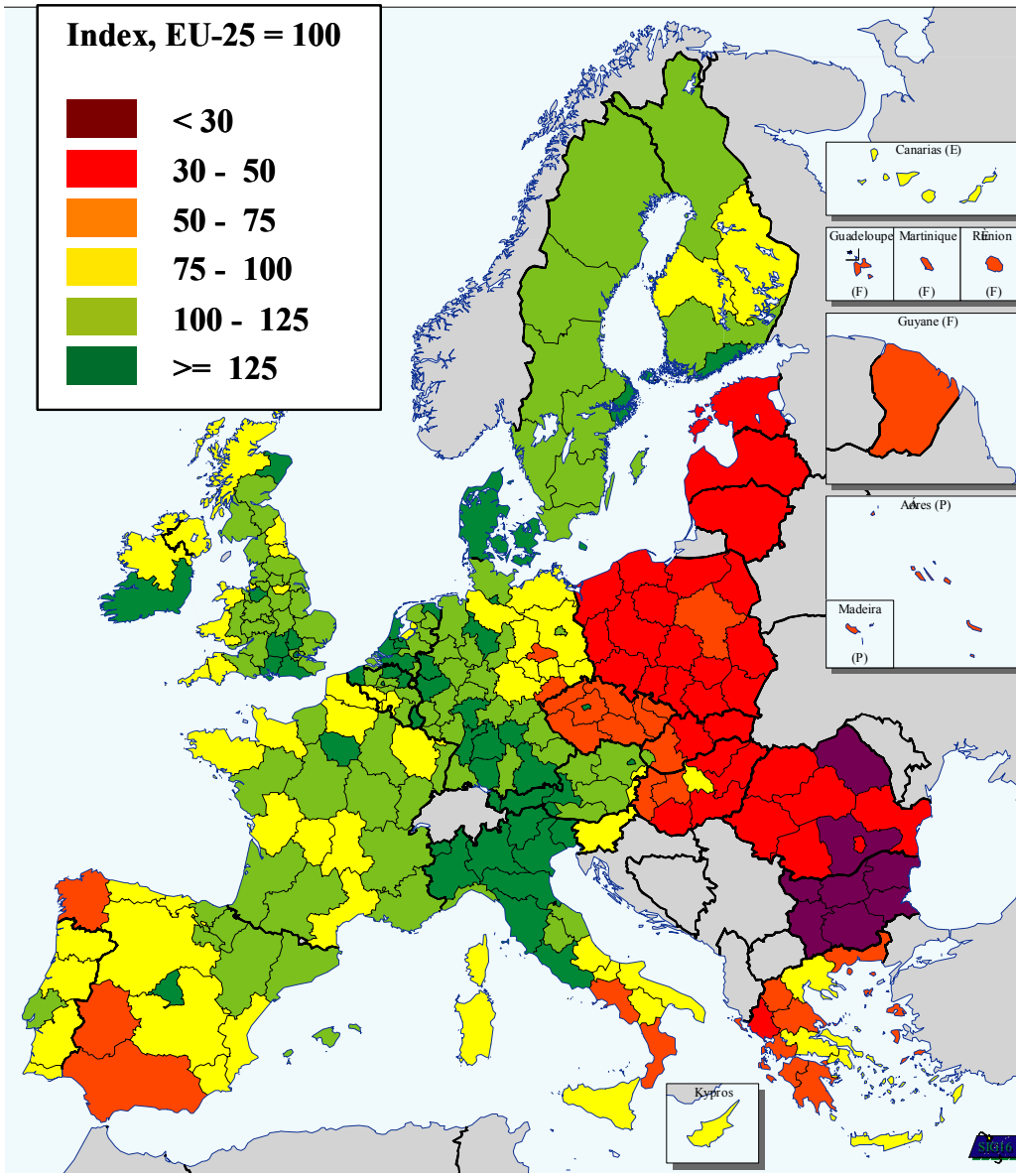
Geographic income inequality

income distribution even more uneven at regional level.

Within nation economic activity is very unevenly distributed

Income distribution has become:

- More even in EU15
- Less even within EU15 nations (by region)

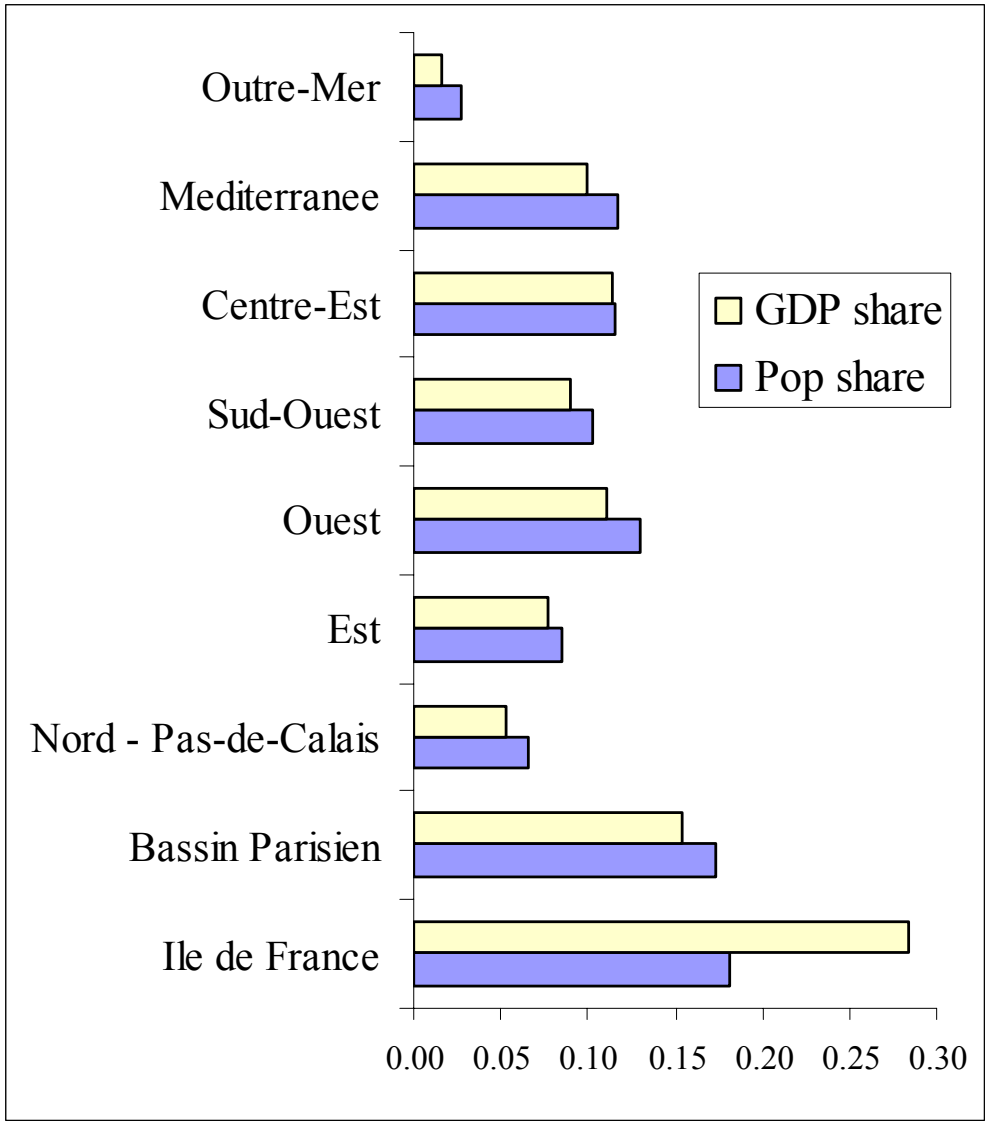


Geographic income inequality

French example

- Ile de France (Paris) has almost 1/3 of all economic activity
- Per capita incomes (not shown) are 158% of EU15 average
- Mediterranee has 10% of GDP, 12% of population
  - GDP/pop only 86% of EU15 average

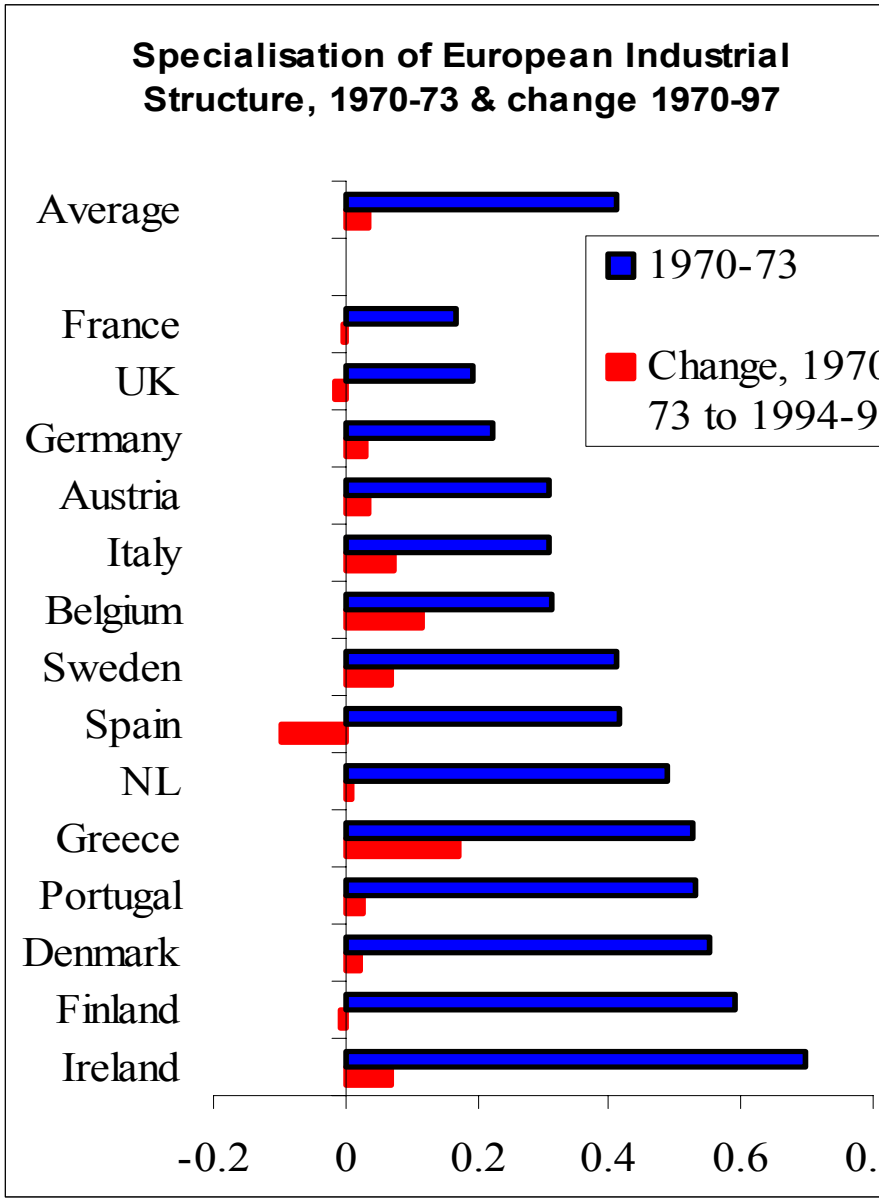
Outre-Mer are former French colonies (poor islands in Caribbean, etc.)



Geographic Specialisation

Krugman index of specialisation shows most EU nations becoming more specialised

- EU economies seem to be specialising more in their comparative advantages



Theory

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

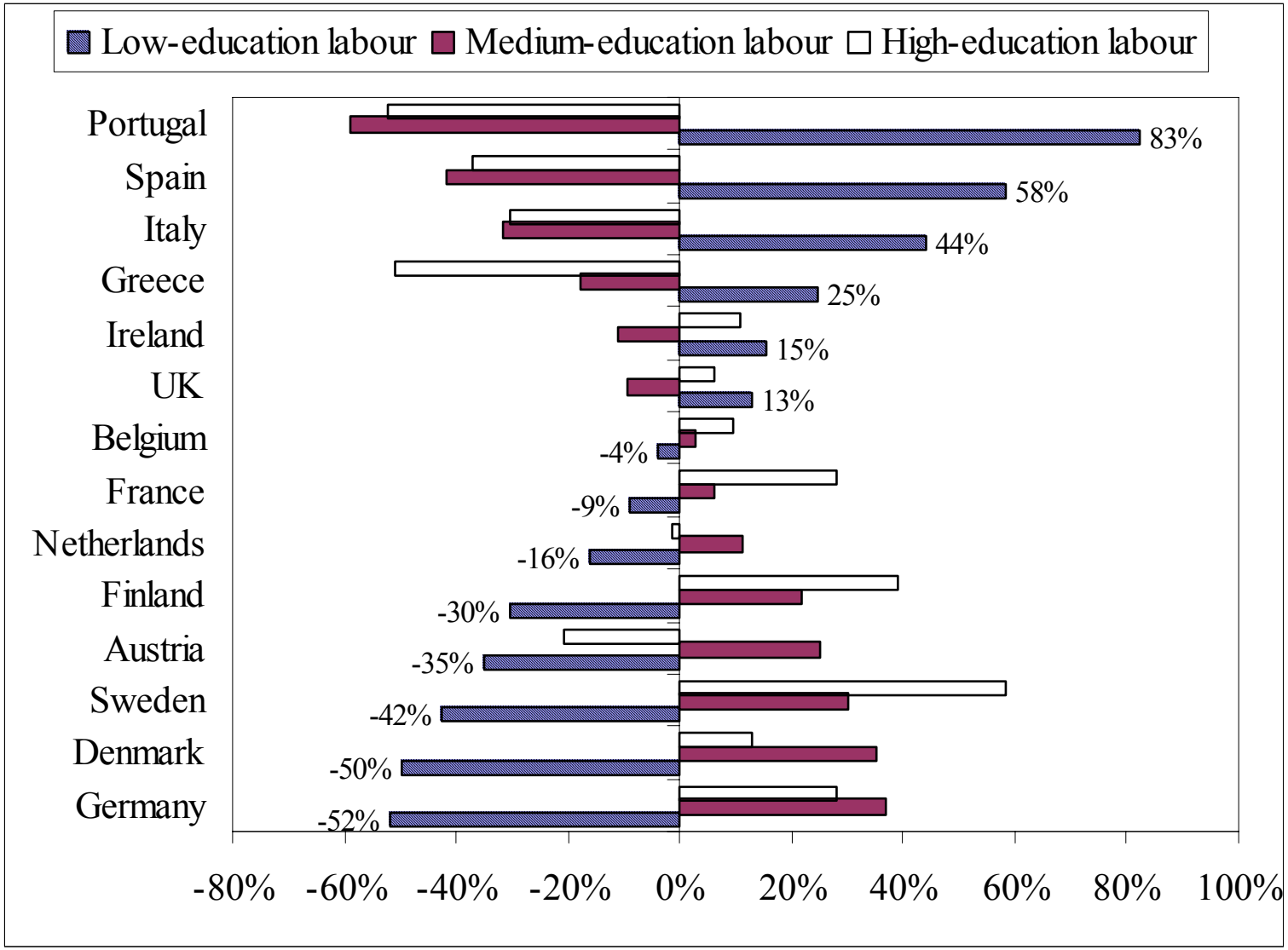
Comparative advantage suggests nations specialise in sectors in which they have a comparative advantage

New Economic Geography suggests that integration tends to concentrate economic activity spatially

General idea:

- Use c.a. approach to explain cross-nation facts
- Use NEG to explain within nation facts

Comparative Advantage and Specialisation



Agglomeration & NEG

- When productive factors can cross borders (international or inter-regional) integration may have very different effects
- scale economies & trade costs generate forces that encourage geographic clustering of economic activity.
  - "Overall clustering“ = some areas with lots of economic activity, others empty “core-periphery”
  - "Sectoral clustering" = each sector clusters in one region, but most regions get a cluster

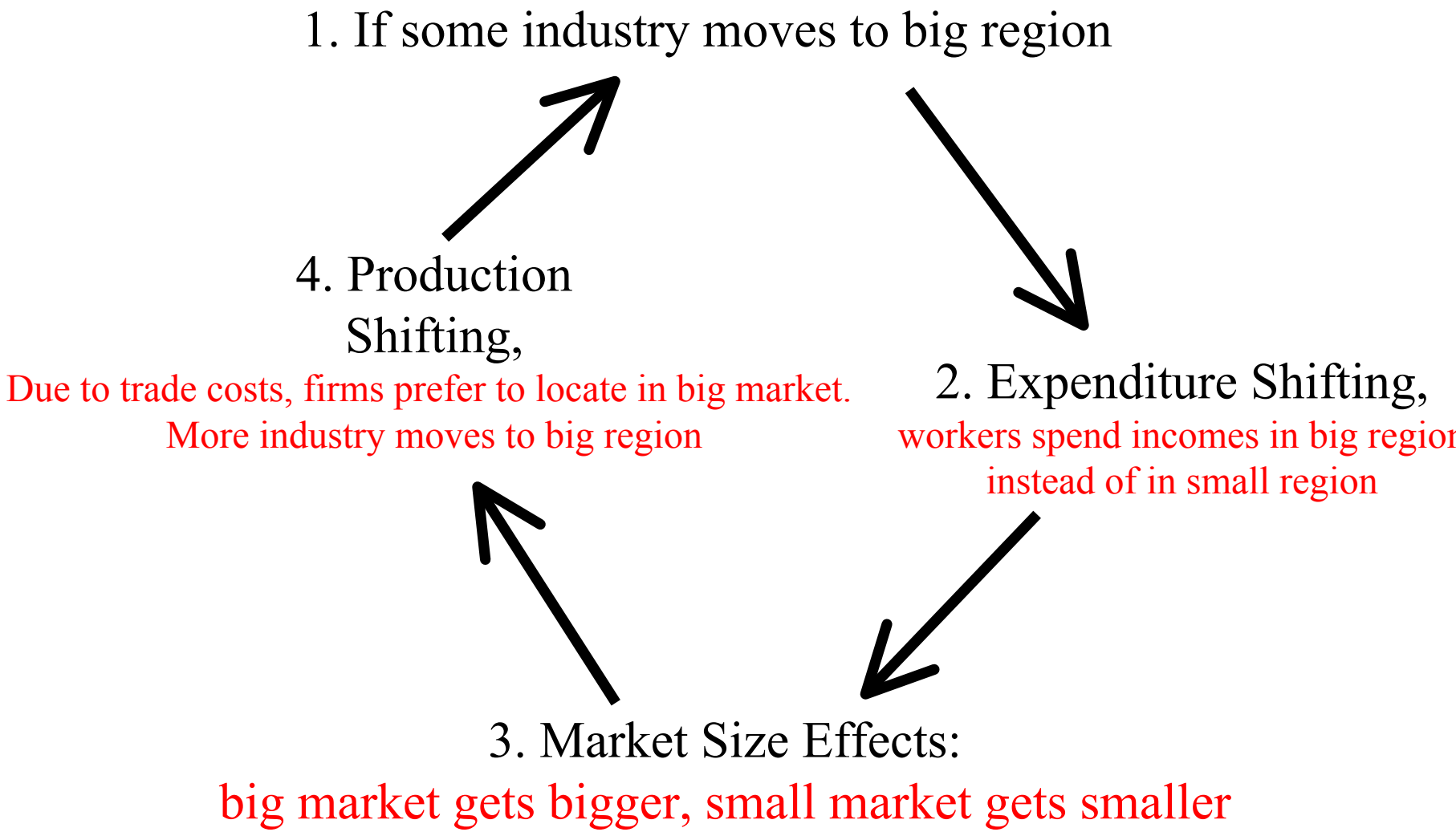
Agglomeration & Dispersion Forces

- Basic idea is that lowering trade costs affect both
  - Agglomeration forces
    - Tend to lead industry to cluster geographically
  - Dispersion forces
    - Tent to encourage industry to disperse geographically

Agglomeration Forces

- Many agglomeration forces
  - Technological spillovers (e.g. silicon valley)
  - Labour market pooling (e.g. City of London)
  - Demand linkages (a.k.a backward linkages)
  - Supply linkages (a.k.a foreward linkages)
- NEG forces on demand & supply links since they are clearly affected by economic integration (lower trade costs)

Circular Causality & Demand Linkages



Circular Causality & Supply Linkages

1. If some industry moves to big region

2. Production Shifting,
Migrated firms' output now cheaper in big region & dearer in small region (trade costs)

•3. Cost Shifting,
•Availability of wider range of locally available intermediate goods makes big region cheaper place to produce

4. Production Shifting
Some more firms move from small market to big market, attracted by lower costs

Dispersion Forces

- Many forces lead to a tendency of firms to avoid agglomerations of economic activity
  - Rents and land prices
  - High cost of other non-traded services
  - Competition with other firms
- The NEG focuses on the last one "local competition" since it is clearly related to trade costs
  - As trade costs fall, distance provides less protection from distant competitors

EE-KK Diagram

- Study impact of integration on geographical concentration in EE-KK diagram
- Simplifying assumptions
  - Only 2 regions, north and south
  - 2 factors, capital (mobile), labour (immobile)
  - 2 sectors, services (L-intensive), industry (K-intensive)
    - Assume one unit of K required per industrial firm
      - Implies north's share of K is also its share of industry

EE Curve

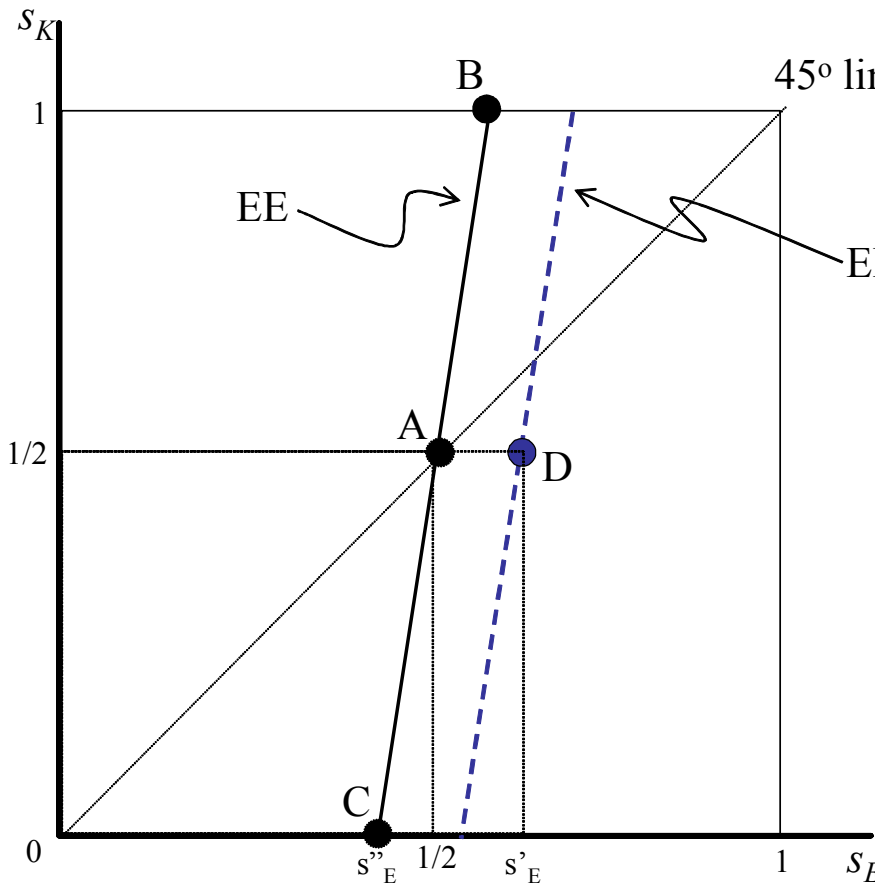
EE curve shows demand linkage

EE upward sloped; as north gets a larger share of industry its market becomes larger relative to that of the south.

EE steeper than 45°; the mobile factor makes up only part of total expenditure.

For EE line, trade costs don't matter

- What matters is how much labour and how much capital is in each region.
- As north's labour share rises, EE shifts to right



KK Curve

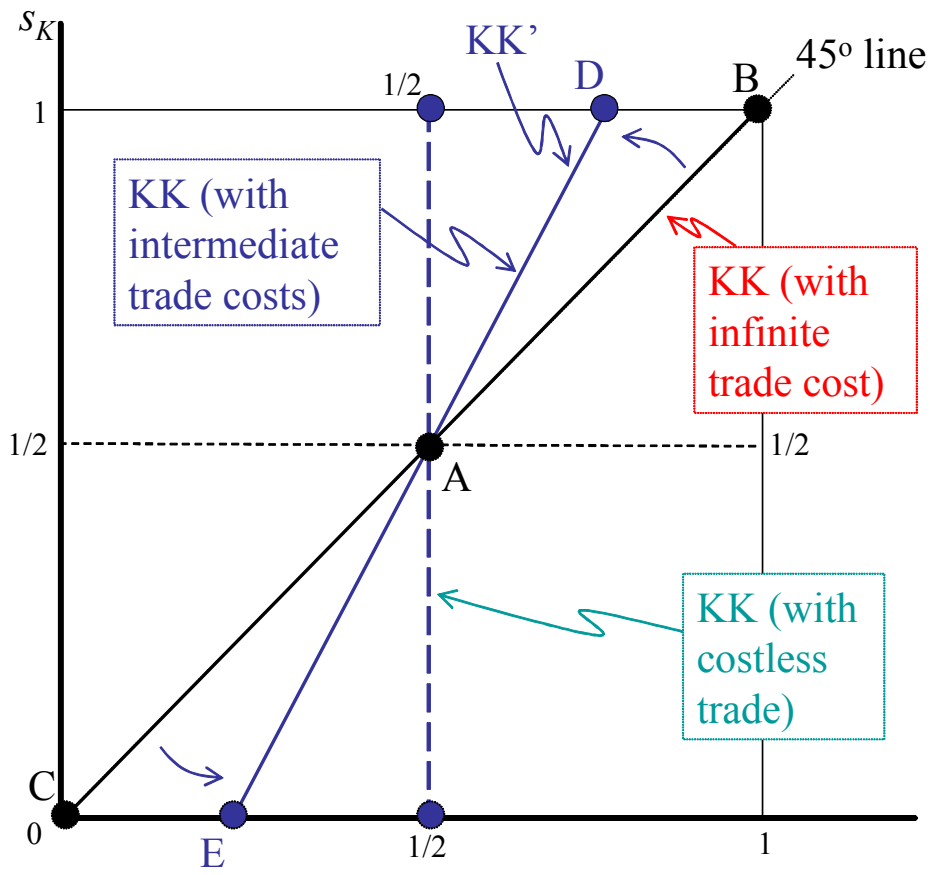
KK is upward sloped

steeper than 45° (home market effect)

trade costs level affects the KK curve.

- trade costs ↓, KK gets steeper

share of labour in the two regions has no impact on KK.



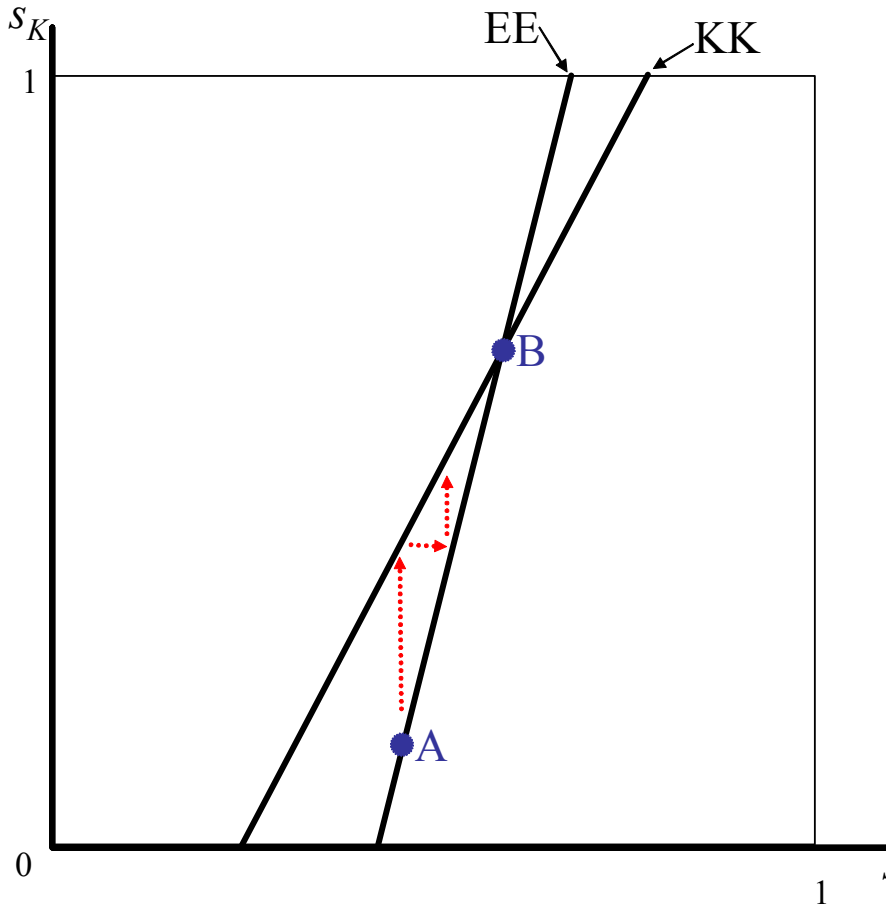
EE-KK Diagram: locational equilibrium

KK shows how production shifting leads to expenditure shifting

EE shows how expenditure shifting leads to production shifting

Intersection of EE and KK show equilibrium s_K and s_E.

If economy starts elsewhere, say A, expenditure and production shifting move it to B



EE-KK Diagram: locational equilibrium

European integration lowers trade costs

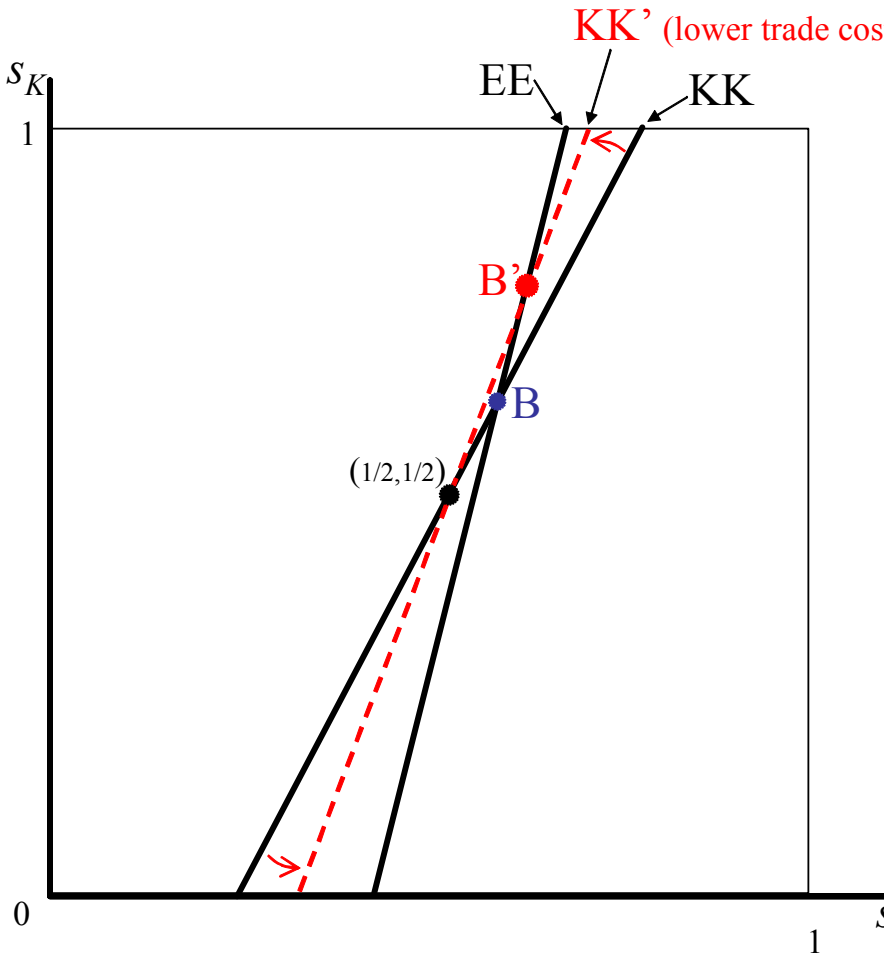
KK rotates counter clockwise around ½,½

More industry moves to the bigger market

- B to B'

Explains tendency of integration to foster geographic clustering of economic activity

- Can be all industry (empty out some regions)
- Can be clusters by sector



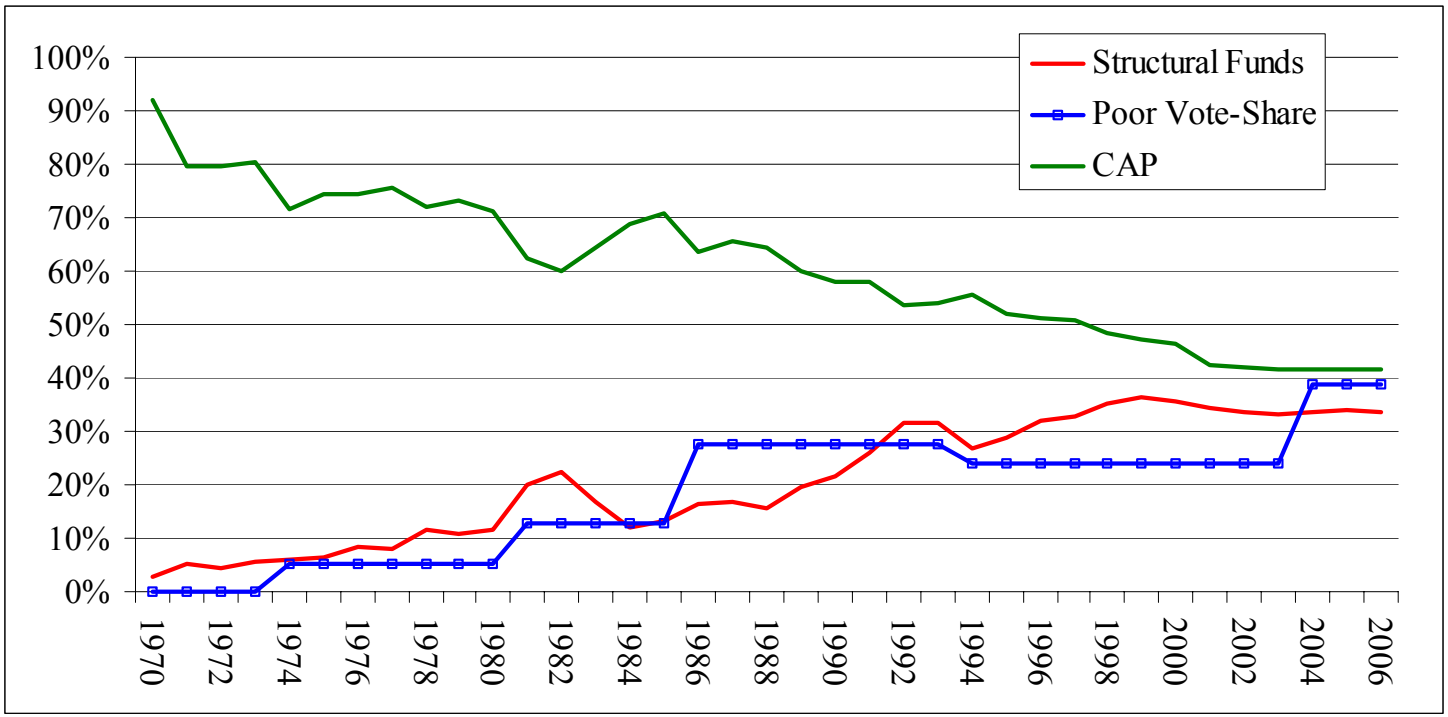
EU Regional Policy

EU always had poor regions (Mezzogiorno, etc.)

- much spending on poor EU regions, but very little by EU (pre 1986)

1973, Ireland (poor at the time joined); 1981, Greece joined but no major reorientation of EU spending priorities.

In 1986, Iberian enlargement shifted power in Council and spending priorities changed



EU Regional Policy

For historical reasons, EU has five "Funds",

- four "Structural Funds", and
  - Spent in any qualified region
- "Cohesion Fund".
  - Spent only in poor-4 (Spain, Portugal, Greece and Ireland)

5 Funds work together under overall strategy

Many programmes, initiatives, and objectives, BUT over 90% is spent on three priority "objectives"

3 Objectives

Objective 1 (about 70% of structural spending).

- spending on basic infrastructure and production subsidies in less developed regions
- generally defined: regions with incomes less than 75% of the EU average
  - Nordic exceptions (low population density)
- There are about 50 “objective 1 regions”; they have about 20% of the EU population.

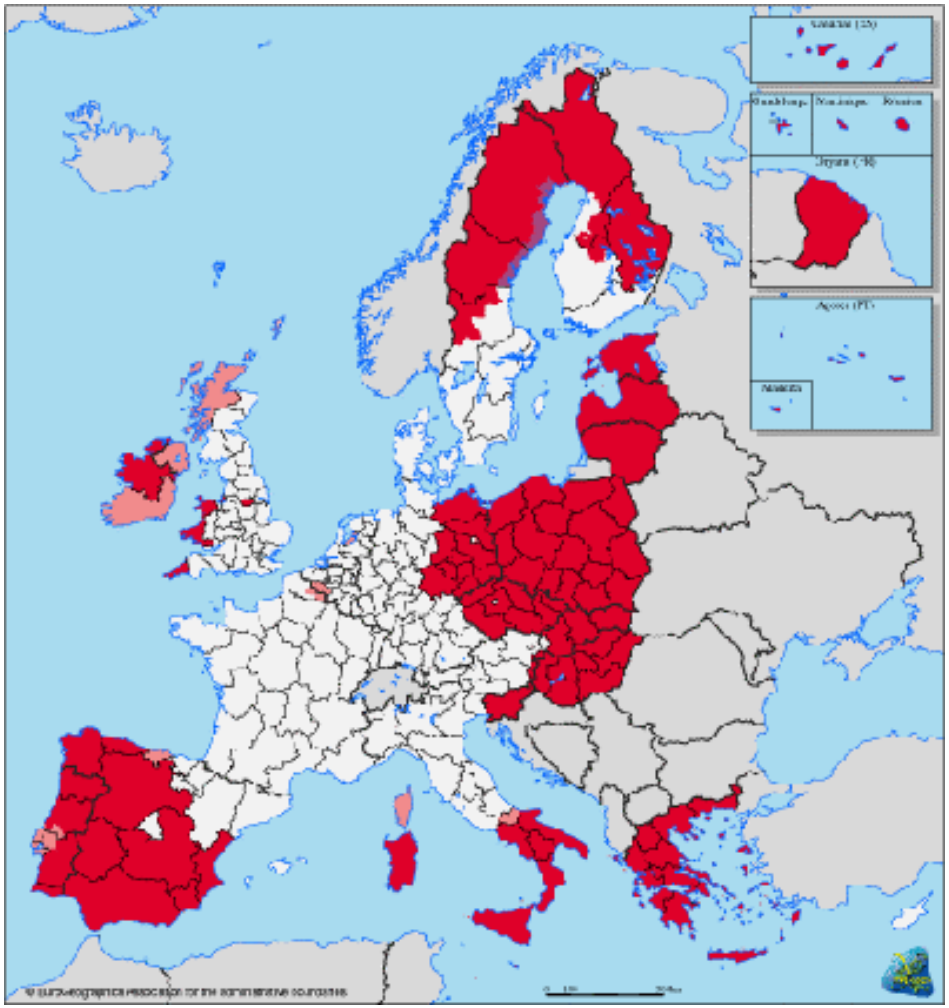
Objective 2 (about 10% of structural spending).

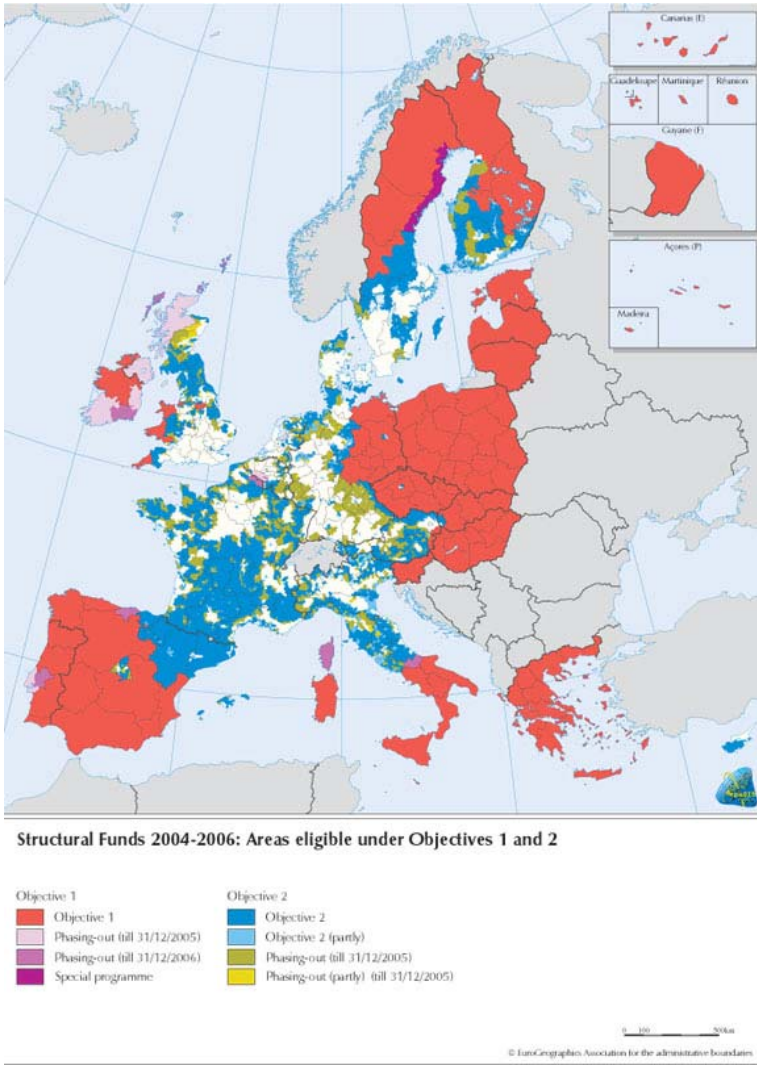
- projects in regions whose economies are specialised in declining
  - coal mining, fishing, steel production, etc.
- spending should support economic and social “conversion”
- About 18% of the Union's population lives in ‘Objective 2” regions.

Objective 3 (about 10% of the funding).

- measure to modernise national systems of training and employment promotion.

Regions covered by Objectives 1 & 2





Objective 1 (2006)

Impact of 2004 Enlargement

- New members are much poorer than EU15
- Difficulties
  - Cost of structural spending could rise substantially
  - 10 new poor nations make some poor regions in EU15 look relatively rich
    - Pushes them above 75% of EU25 average
- Political power in Council likely to shift spending priorites

Impact of 2004 Enlargement

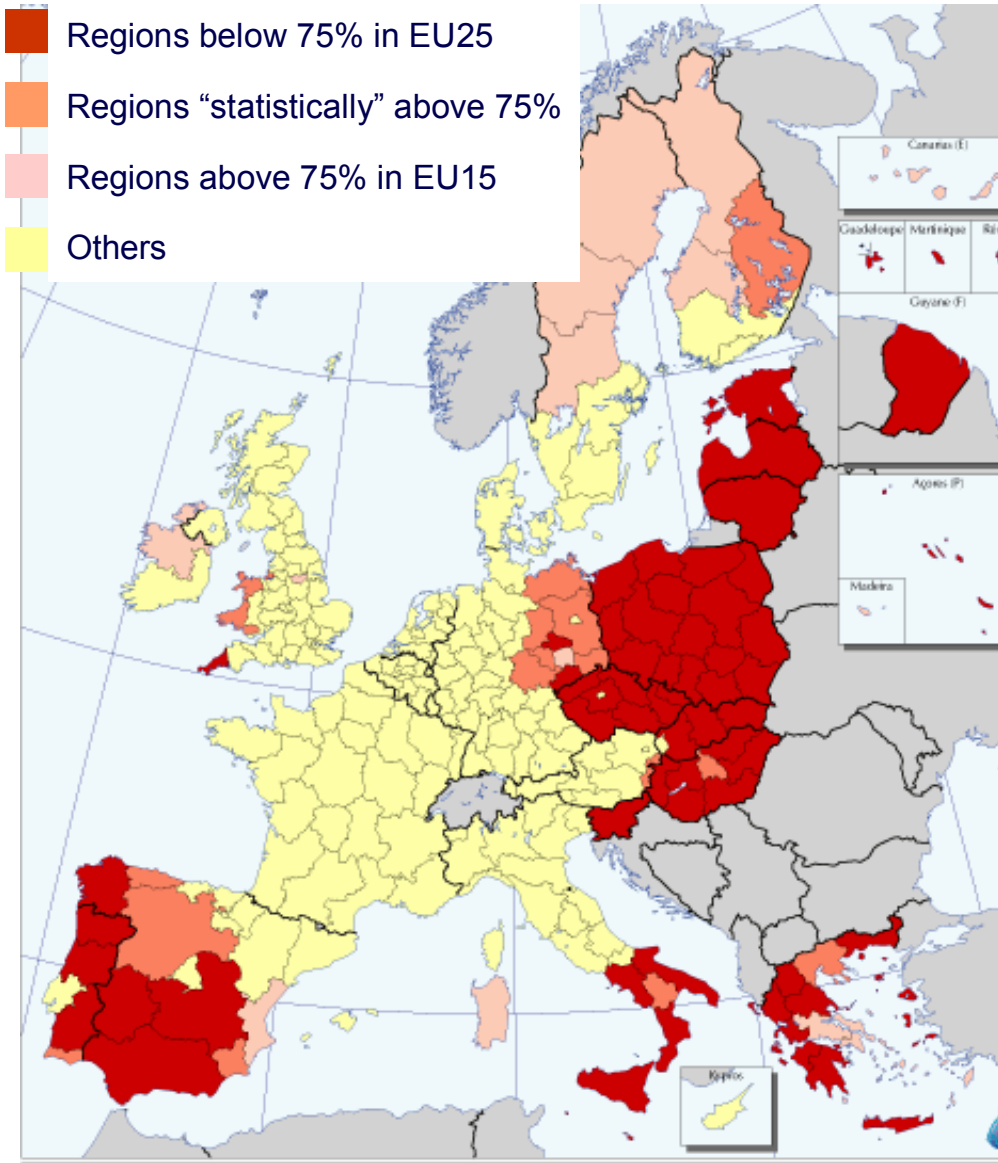
Some regions that will pushed above 75% of average will lose Objective 1 status

Some, like northern Finland and Sweden are unaffected

- Low pop density criteria

All of 2004 entrants have less than 75% of EU25 average

- Except Cyprus



Allocations for Newcomers

- EU already allocated structural spending for newcomers up to 2006
- Can predict spending/pop based on income using EU15 numbers
  - "linear" line in figure;
  - NB: newcomers get 'below the line' treatment