

# What is the meaning of 'convergence' in CEE?

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# Convergence – economic notion

Real convergence vs. nominal convergence

Absolute convergence (Solow-Swan growth model)

Conditional convergence (endogenous growth theory)

National level, regional level

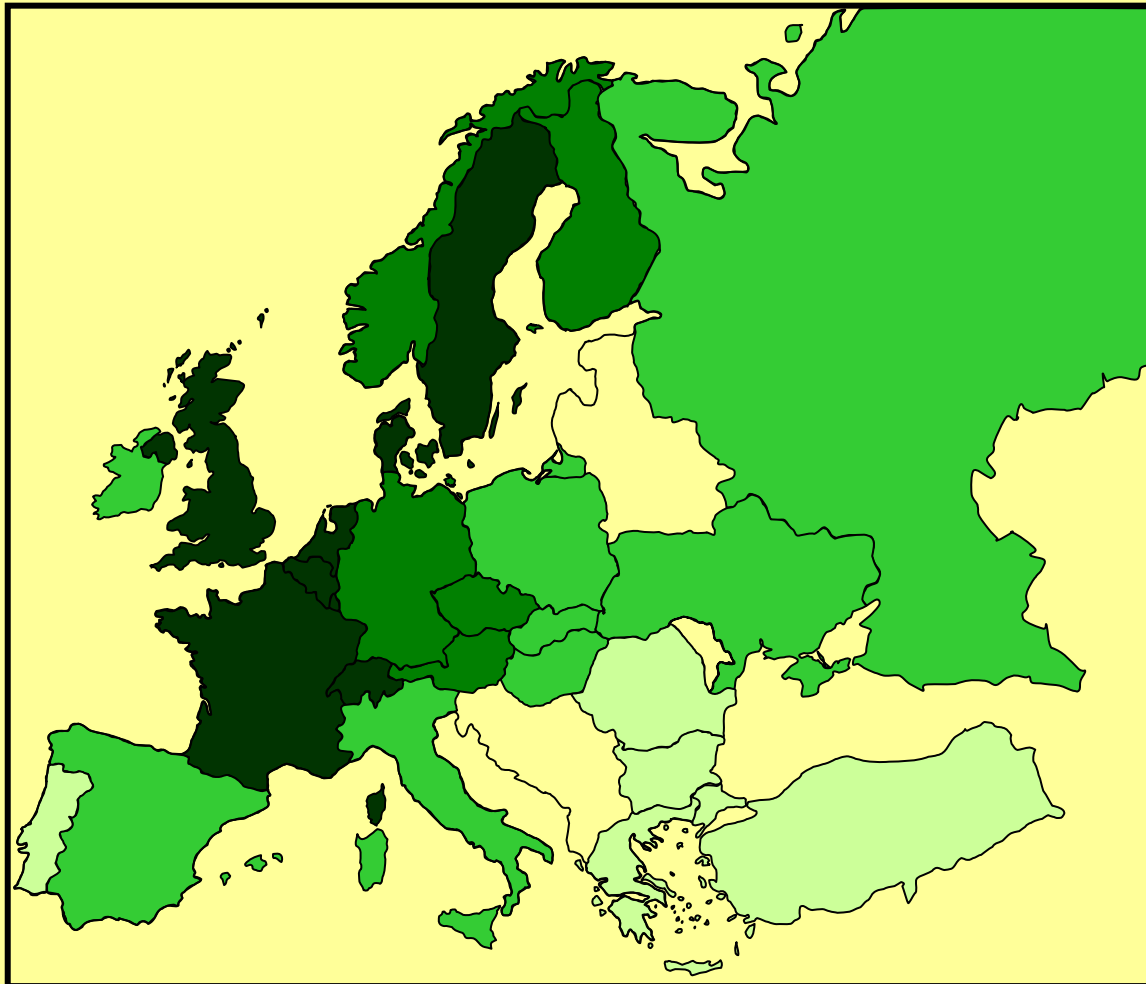
GDP per capita convergence (narrow understanding)

Income per capita convergence

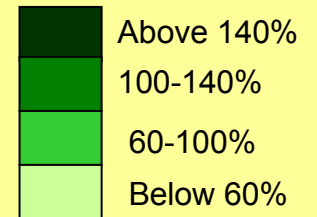
Structural convergence

Historical perspective

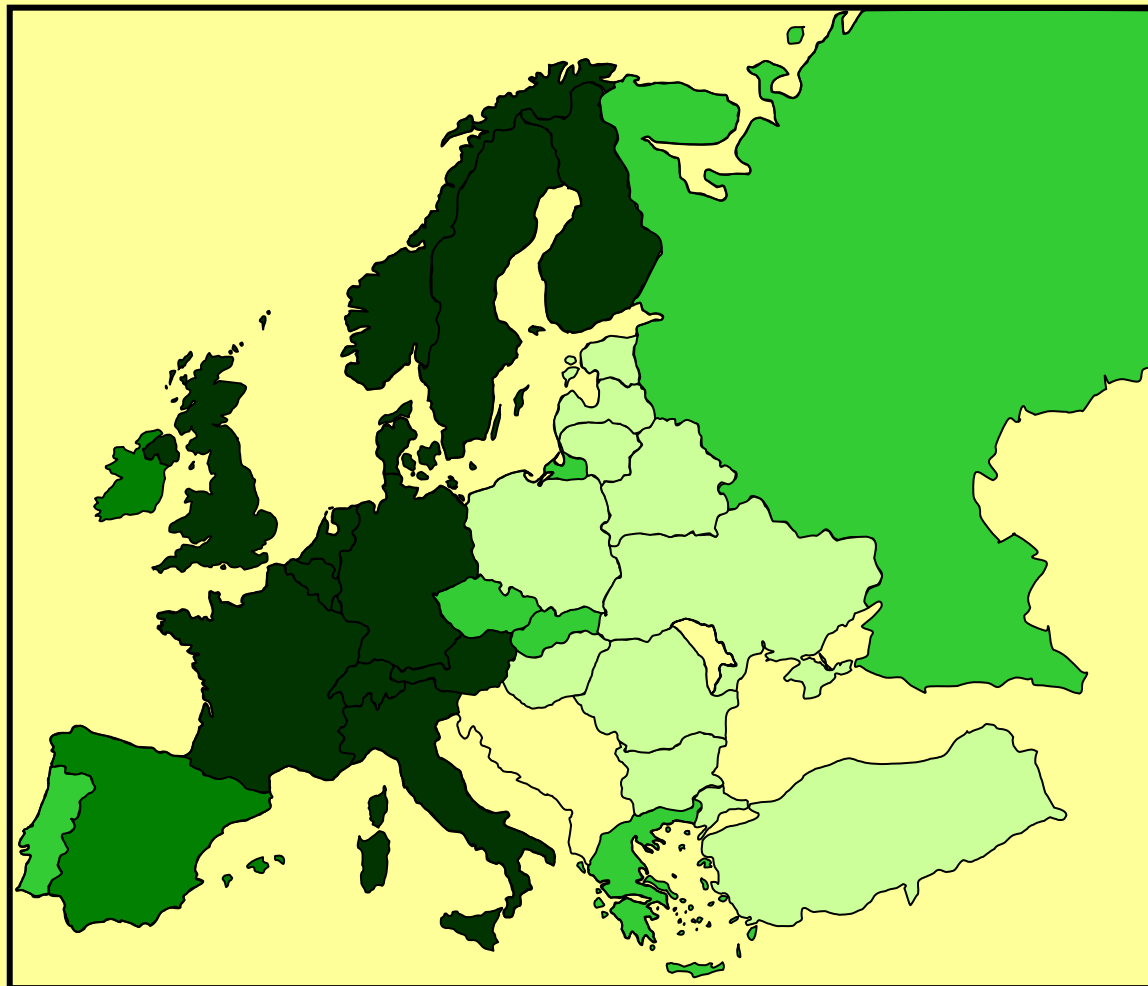
# GDP per capita in Europe, 1950



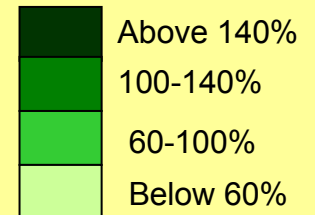
GDP p.c. at PPS  
as % of Europe's average



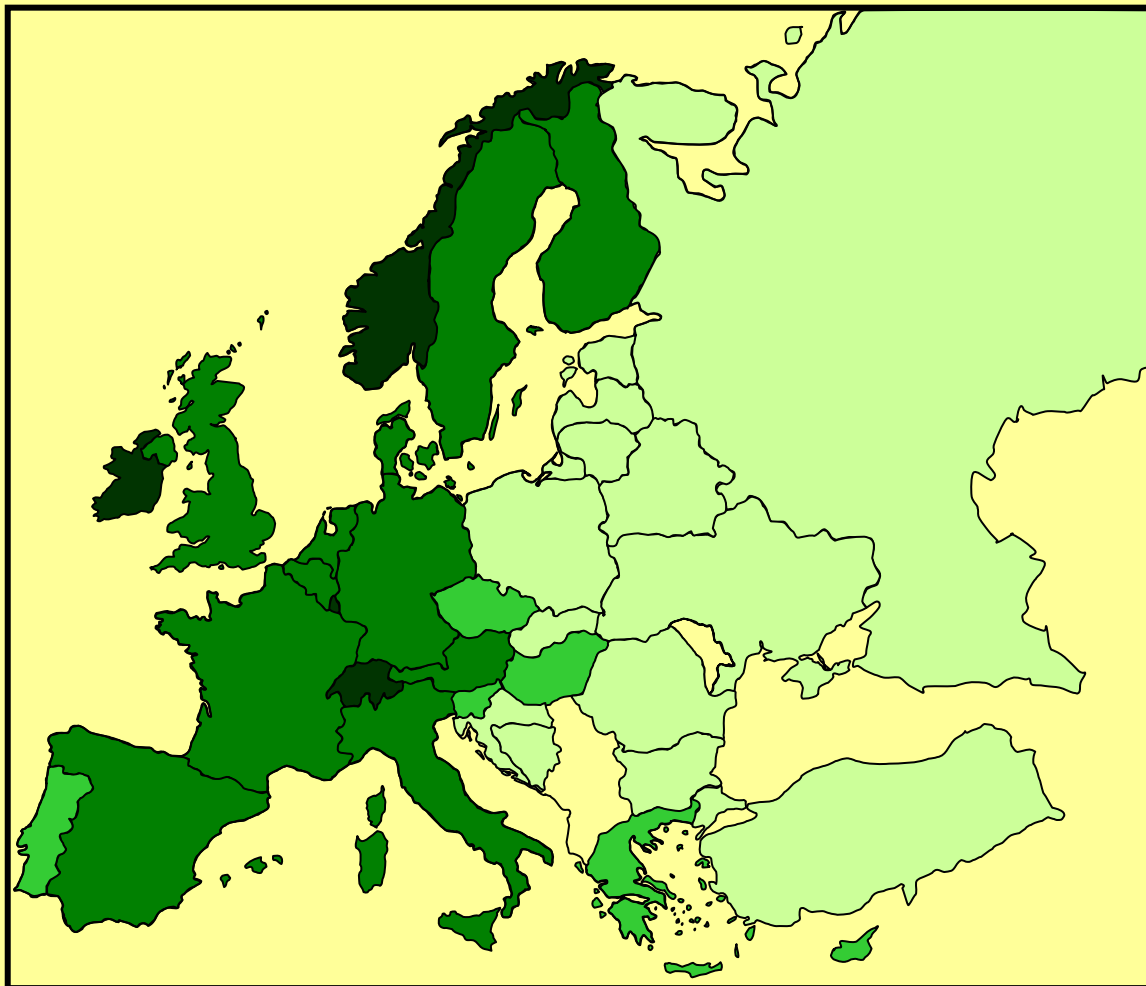
# GDP per capita in Europe, 1990



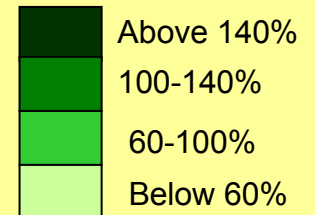
GDP p.c. at PPS  
as % of Europe's average



# GDP per capita in Europe, 2005



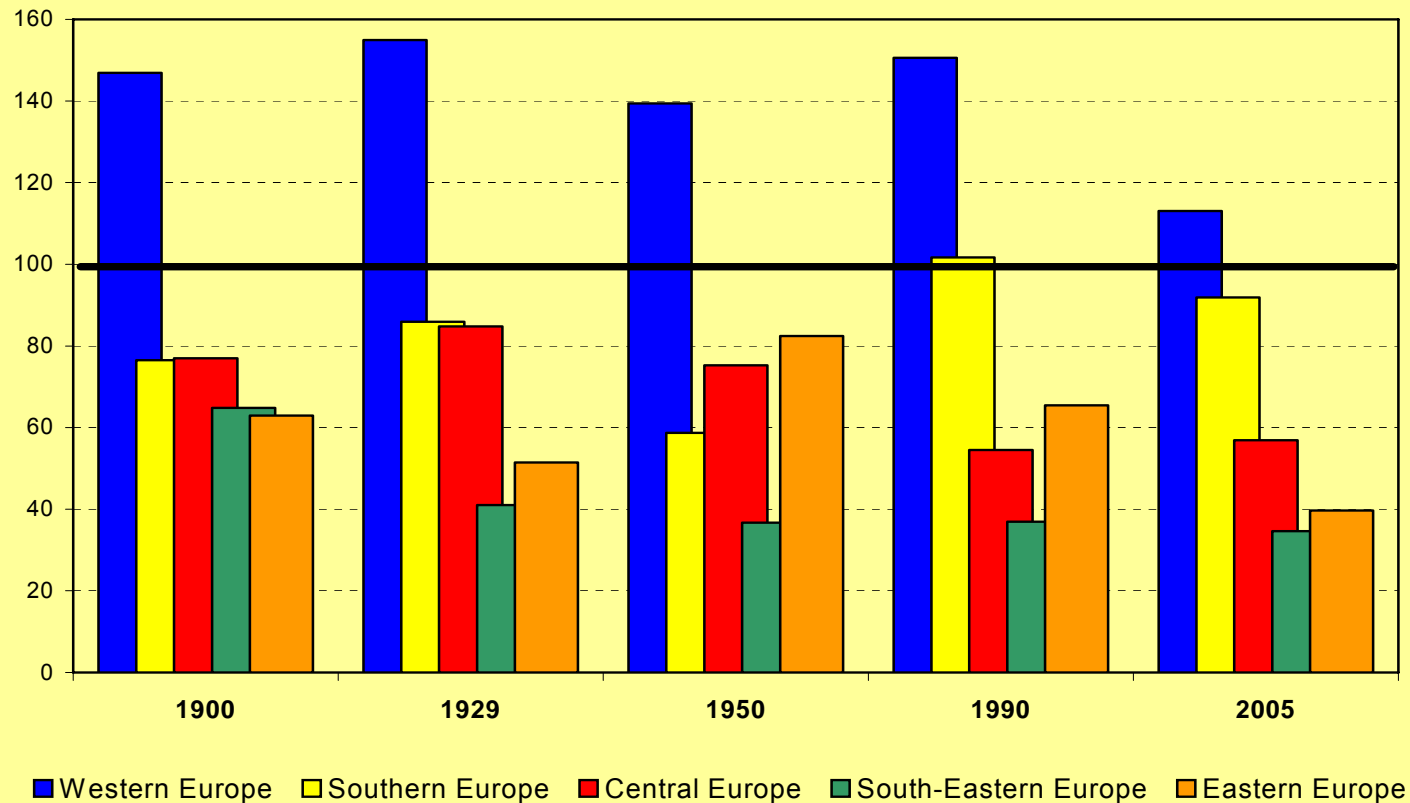
GDP p.c. at PPS  
as % of Europe's average



Source: OECD 2003; Eurostat, 2007; Author's estimates

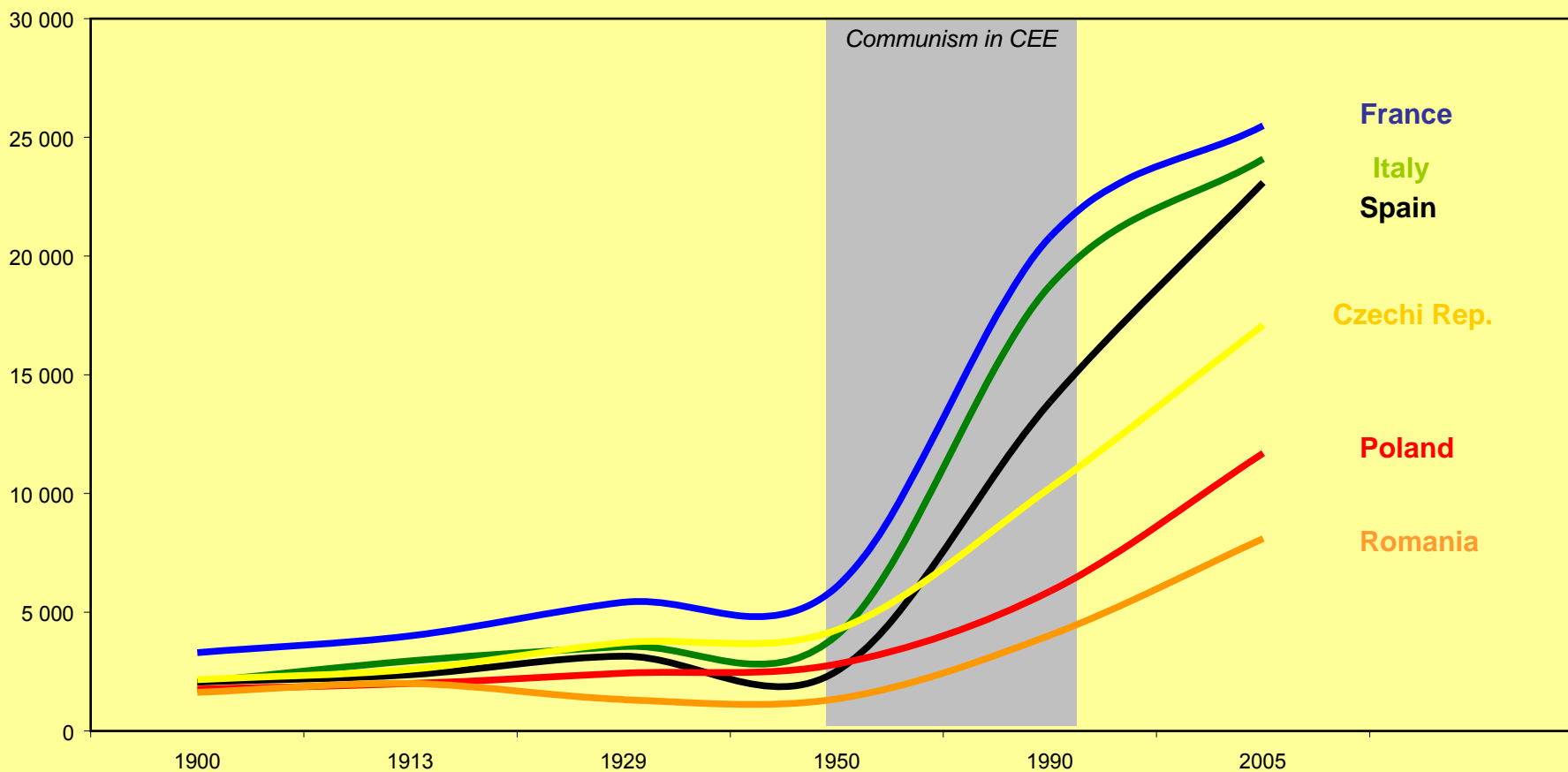
# Changing economic map of Europe, 1900-2005

GDP per capita in Europe, 1900-2005 (in PPS, Europe's average=100)

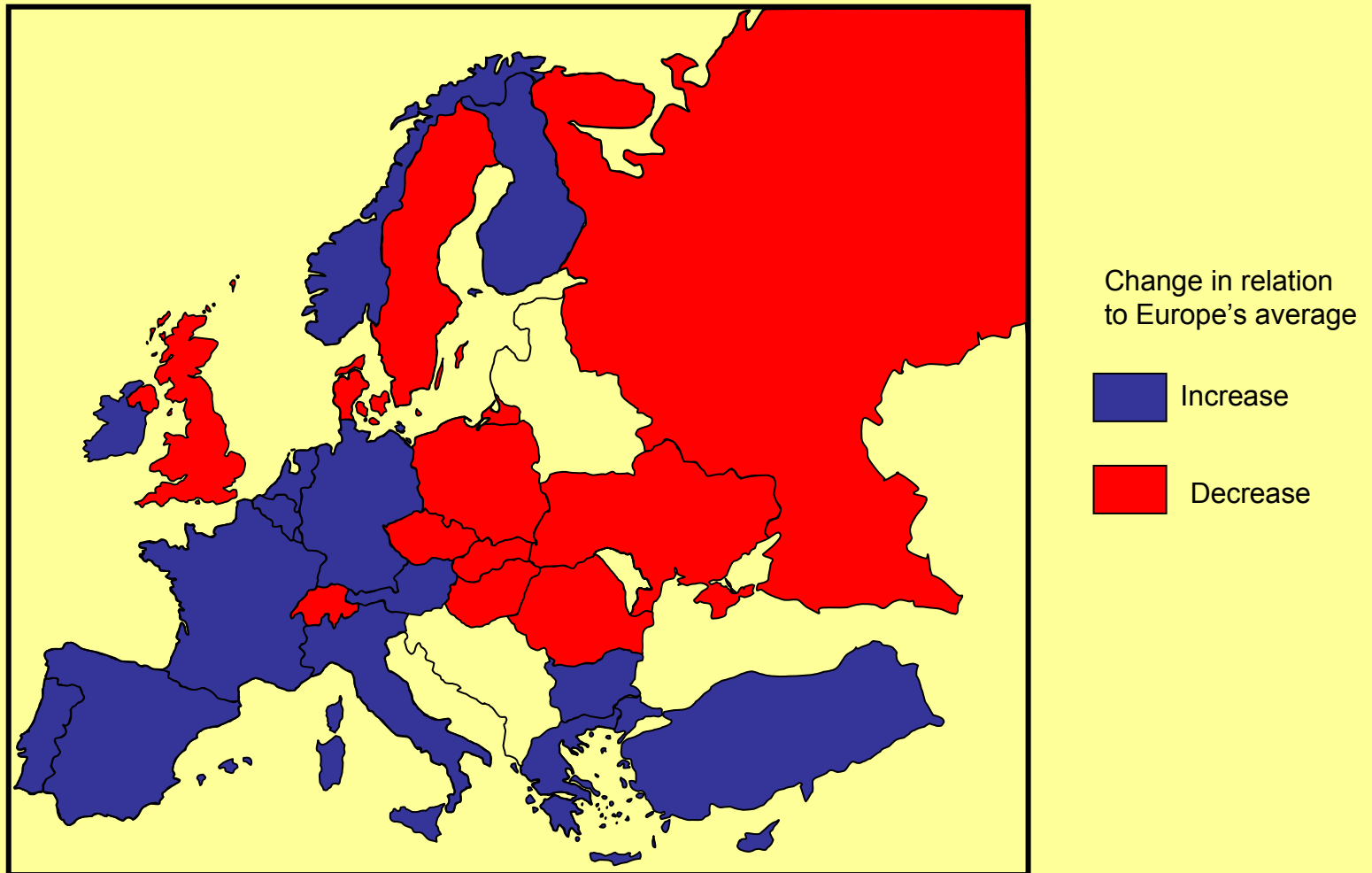


# What was behind the changes?

GDP per capita in selected countries, 1900-2005 (in PPS, Europe's average=100)



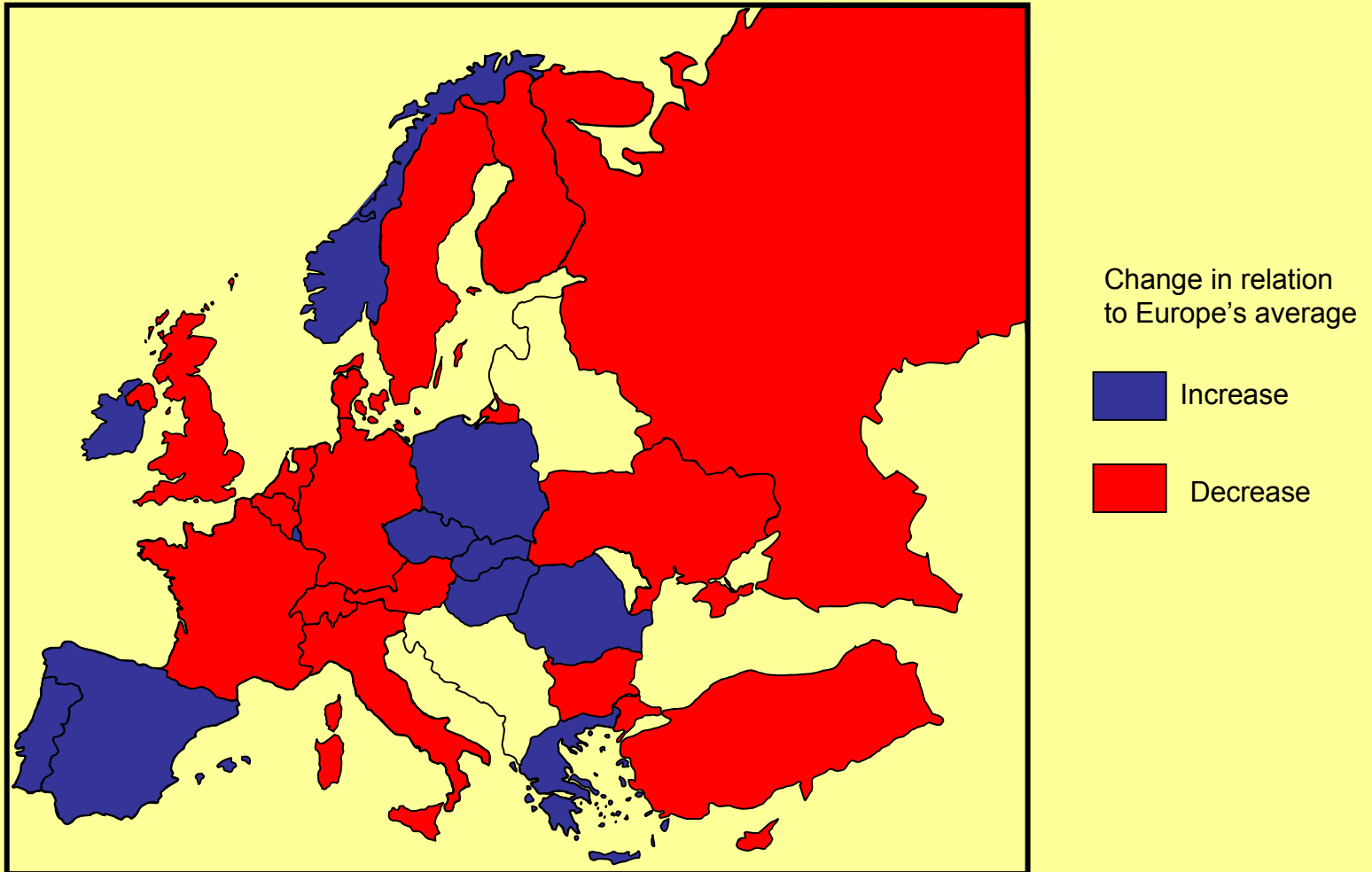
# Relative GDP per capita in Europe, change 1950-90



Source: OECD 2003; Eurostat, 2007; Author's estimates



# Relative GDP per capita in Europe, change 1990-2005



Source: OECD 2003; Eurostat, 2007; Author's estimates

# Changing position of CEE in Europe

Divergence West/East: 1950-1990

Convergence in CEE: 1990-2005

Some conclusions:

- Market forces lead to convergence in CEE
- Transition=adjustment
- Competitiveness, labour/cost of labour
- Capital flows West  $\Rightarrow$  East
- Economic policies do matter

# The gap is not only in the income

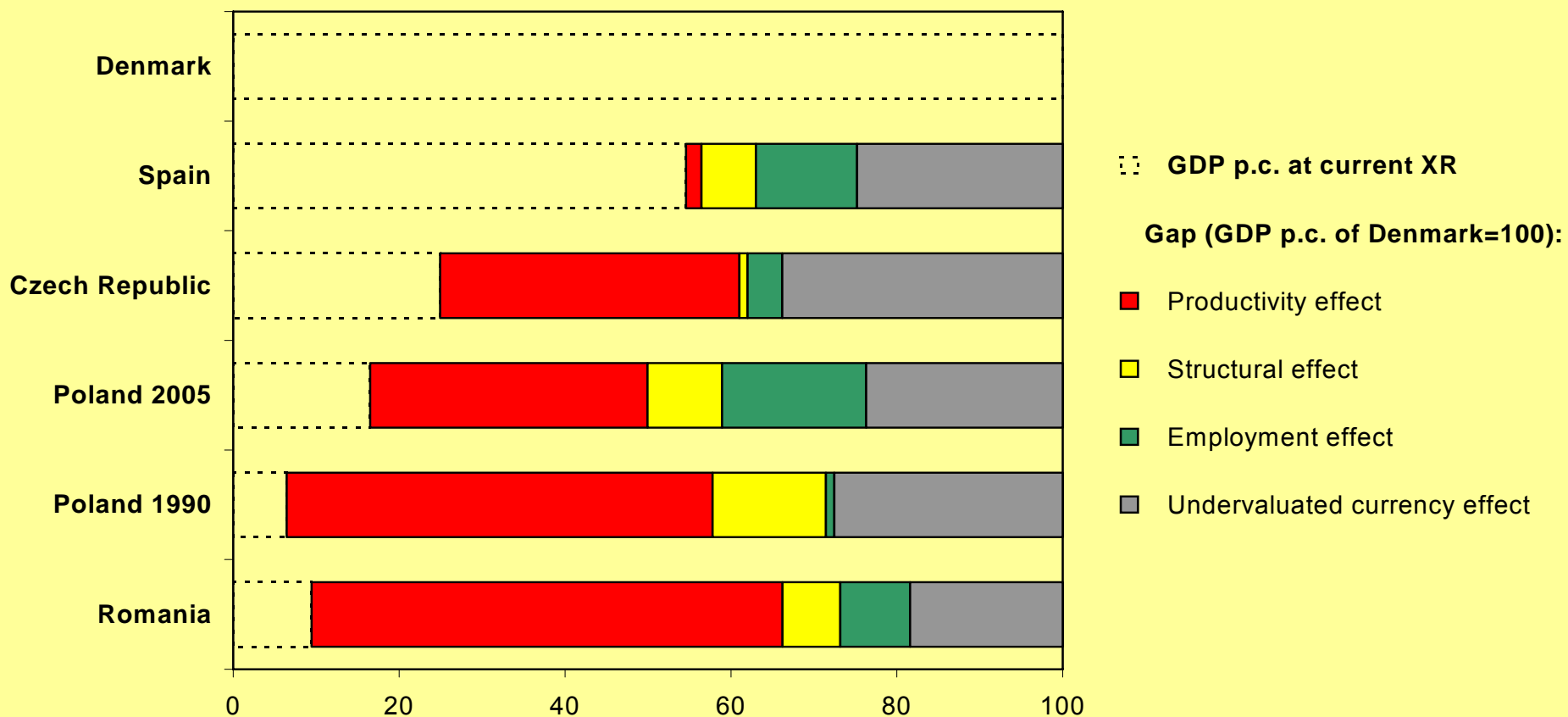
Various factors that create the income gap

- Productivity gap
- Structural gap
- Employment gap
- Undervaluated currency gap

All these factors exist in CEE

# Measurement of the gap

Gap in GDP p.c. measured with current exchange rates:  
Four European countries versus Denmark, 2005



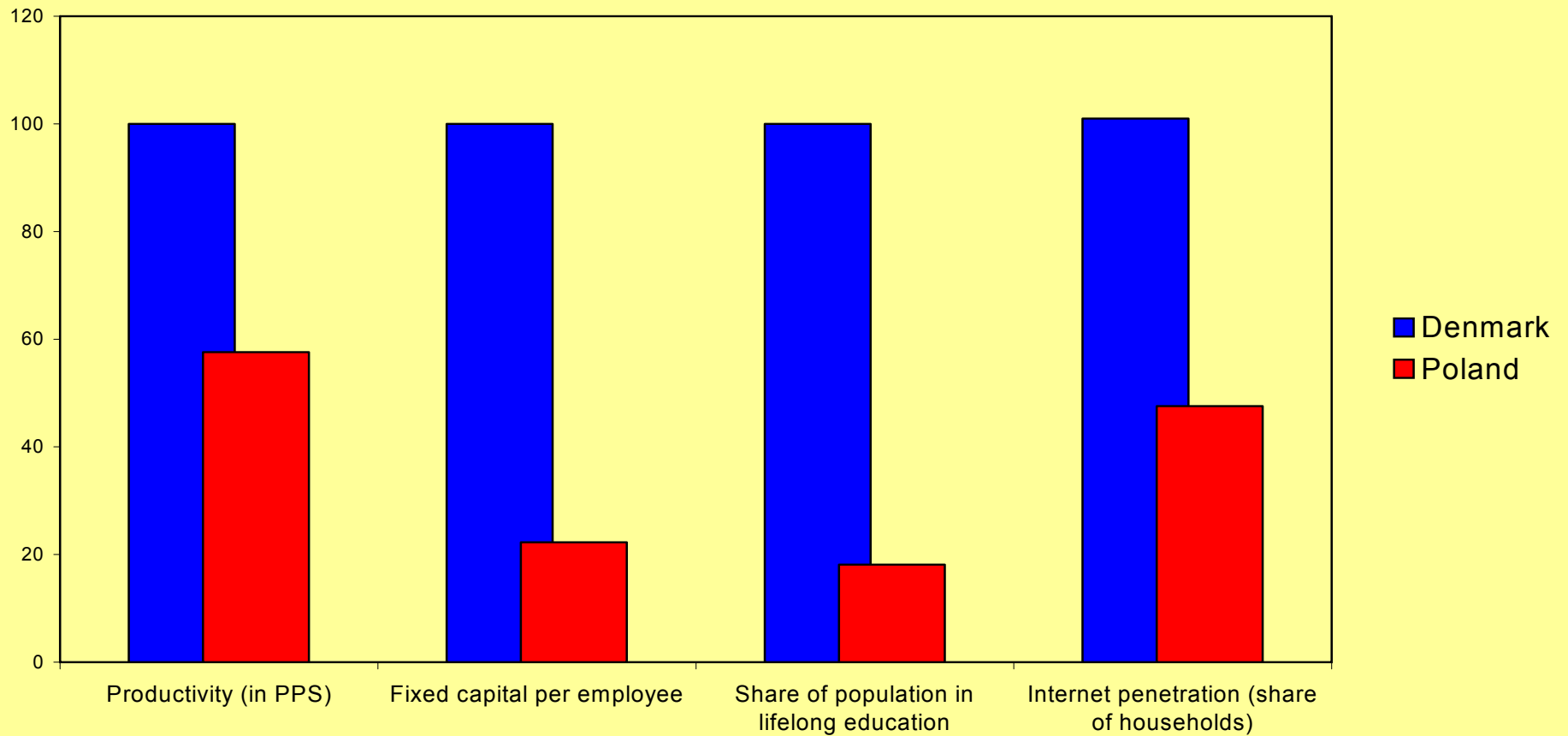
# What lies behind the productivity gap?

- Machinery (fixed assets per employee)
- Organization (in the broad sense: management, valorization, marketing etc.)
- Skills (education)
- New technologies

Progress in all these areas, but many problems remain

# Long way to go...

**Productivity gap between Poland and Denmark: a few explanatory factors  
(2005, Denmark=100)**



# The structural gap

- Employment in agriculture
- Employment in industry
- Employment in services

The progress is uneven (e.g. agriculture in Poland/Romania).

Share of the market services grows everywhere.

# The employment gap

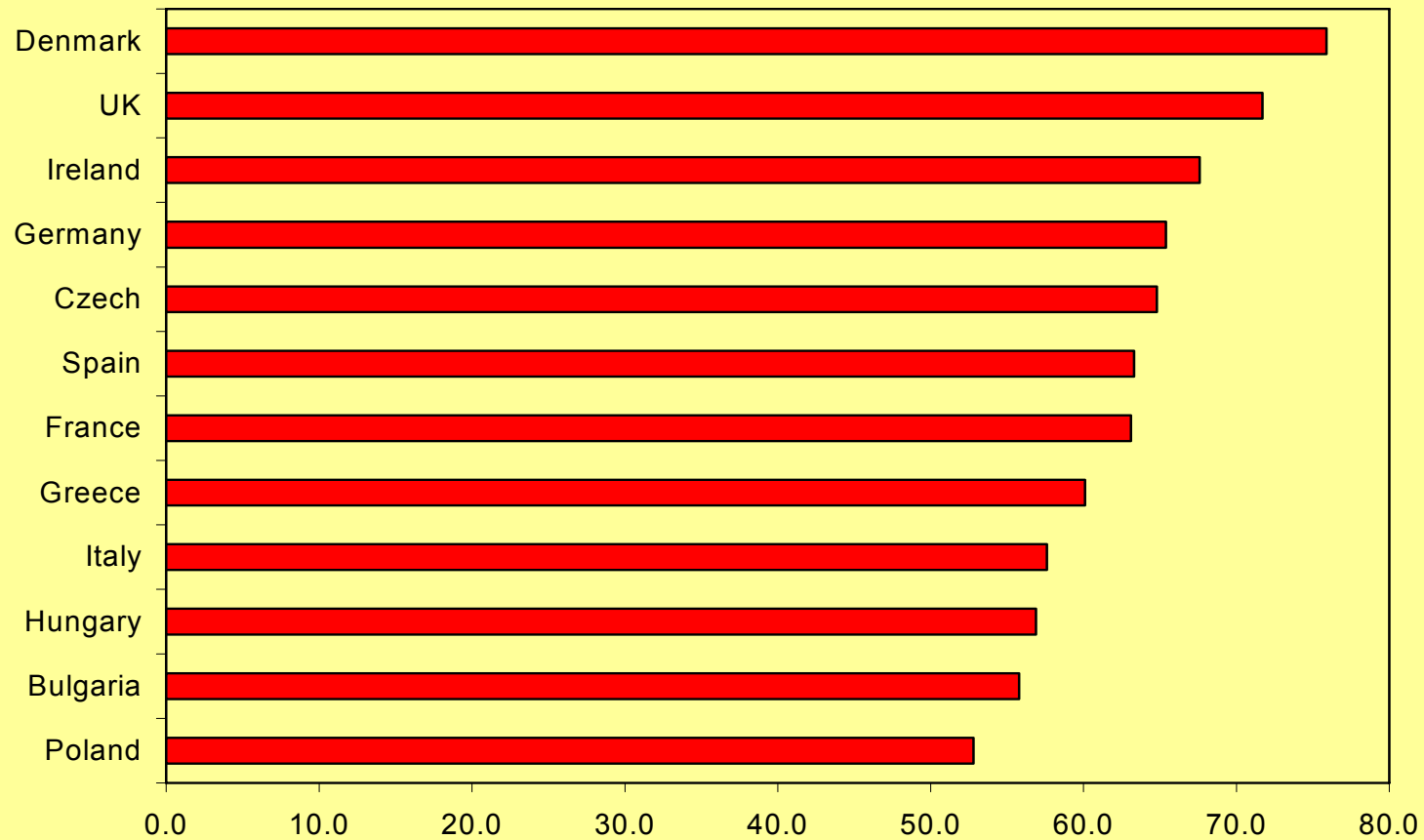
- Unemployment – new phenomenon during the transition
- Low employment rates – tradition (?)
- Skills mismatch, low mobility, insufficient education
- Wrong policies

The employment problem remains mainly unsolved



# Long way to go...

Employment rates, selected EU countries (2005)



# Currency undervaluation

- Weak currencies – heritage of the past
- Real appreciation (Balassa-Samuelson effect)
- Approximation of price levels

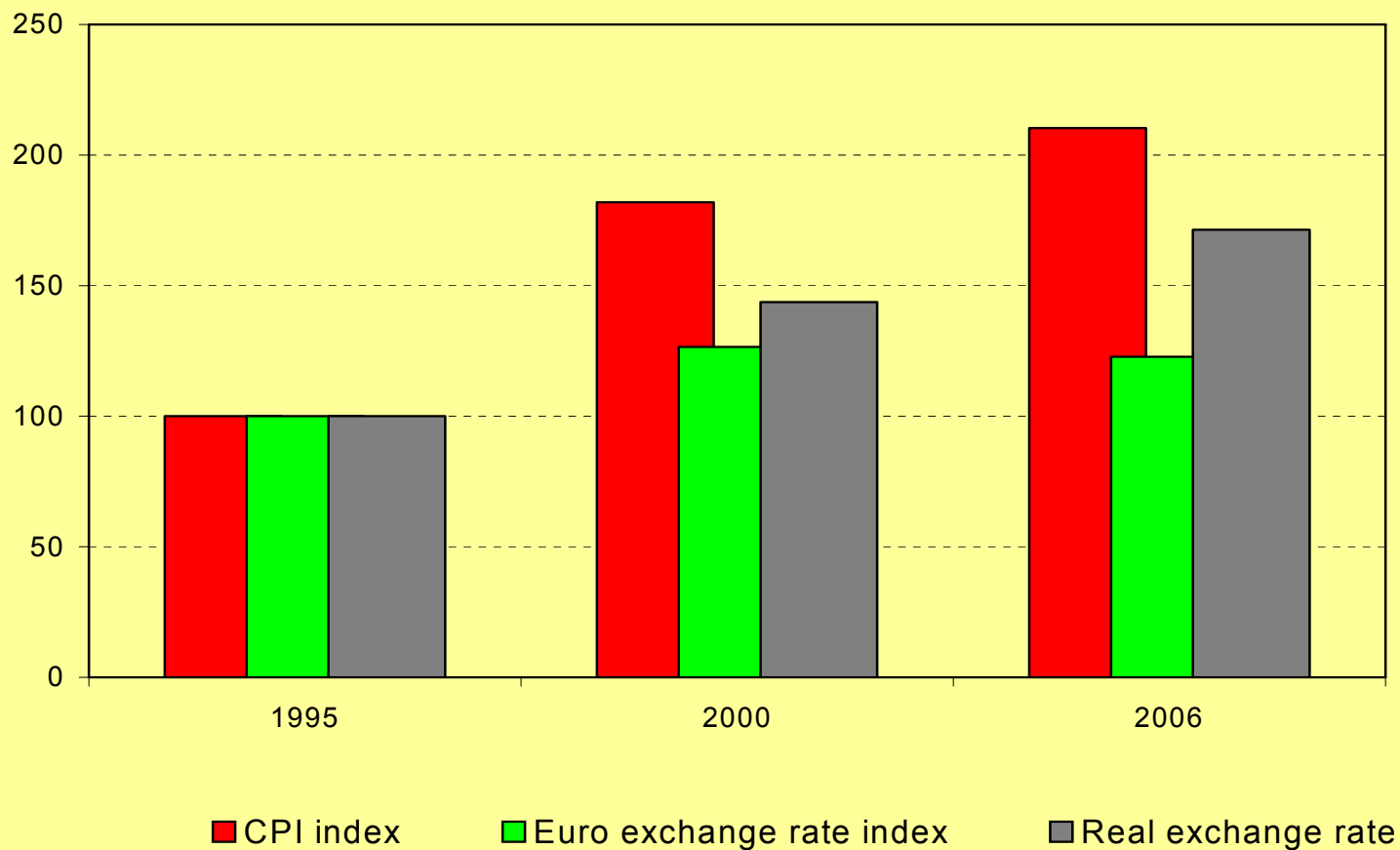
Effect: continuous strengthening of currencies

Policies may influence the process in the short run

Process for many decades

# Speed of the real appreciation in Poland

**Real appreciation of the currency in Poland, 1995-2006**  
(indices, 1995 level=100)



# Conclusions

The convergence process in CEE is under way since 1990

The speed depends on the policies

The income gap is composed of many components

The convergence process in CEE means narrowing of all the components of the gap (productivity, structural, employment, currency)

Apart from the employment gap the other clearly narrowed over the period of transition

The process is likely to last for decades