

Growth challenges in the EU27: focus on the Eastern Member States

Michael A Landesmann

Growth challenges in the EU-27: the Eastern EU Member States

TOPICS:

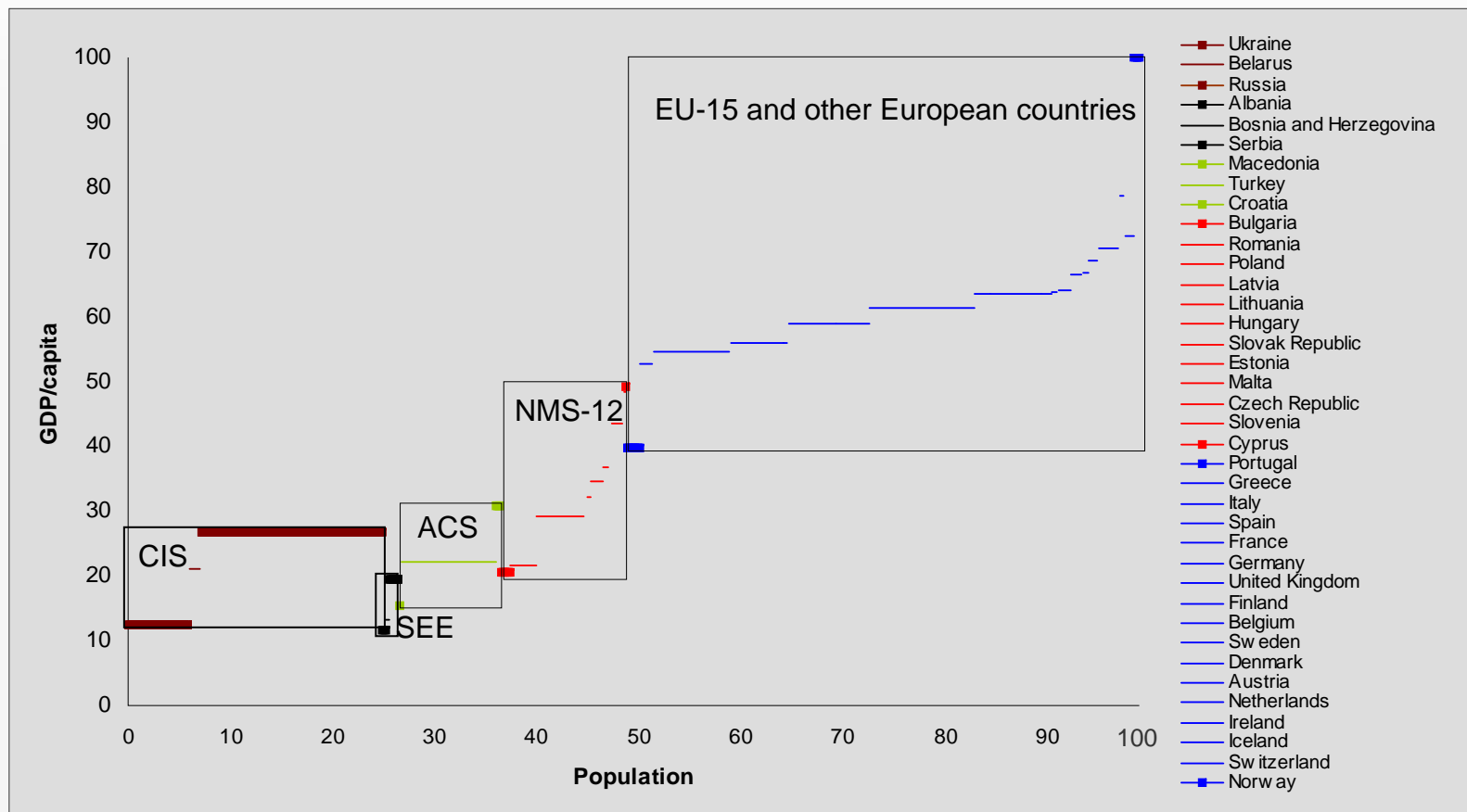
- **Income and growth differentiation in the Wider European economic space – challenges&opportunities**
- **Regional differentiation and specialisation**
- **EU-27 new division of labour – trade patterns**
- **Growth and employment**
- **Skill-biased process of catching-up**

Topic 1:

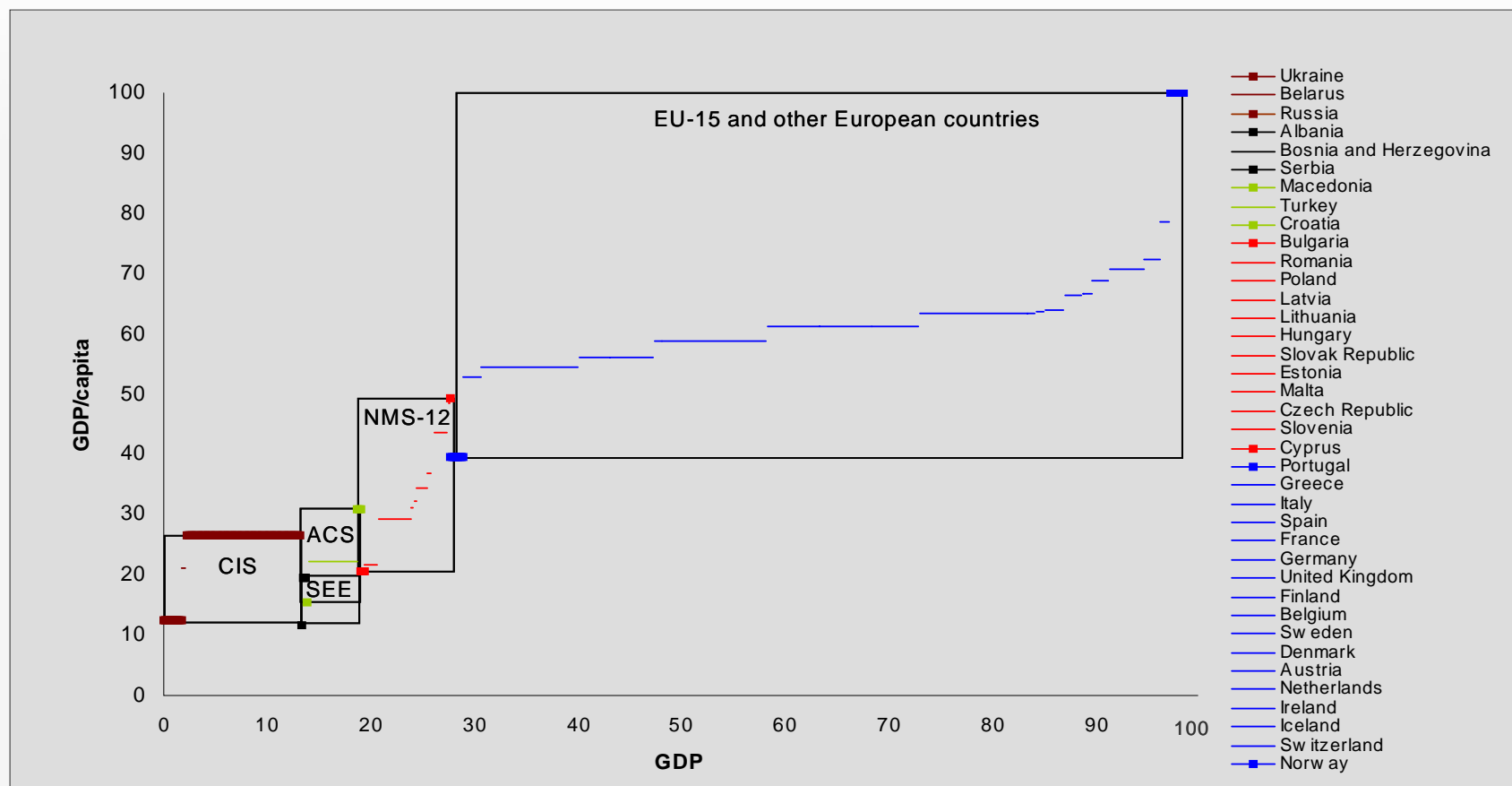
Increased differentiation in the Wider Europe – challenges and opportunities

- **Income, productivity, wage differentiation in the Wider European economic space**
- **Actual and potential impact on Europe's growth**
- **EU's policies in the face of increased heterogeneity**

Share of population – GDP per capita (PPP), 2007

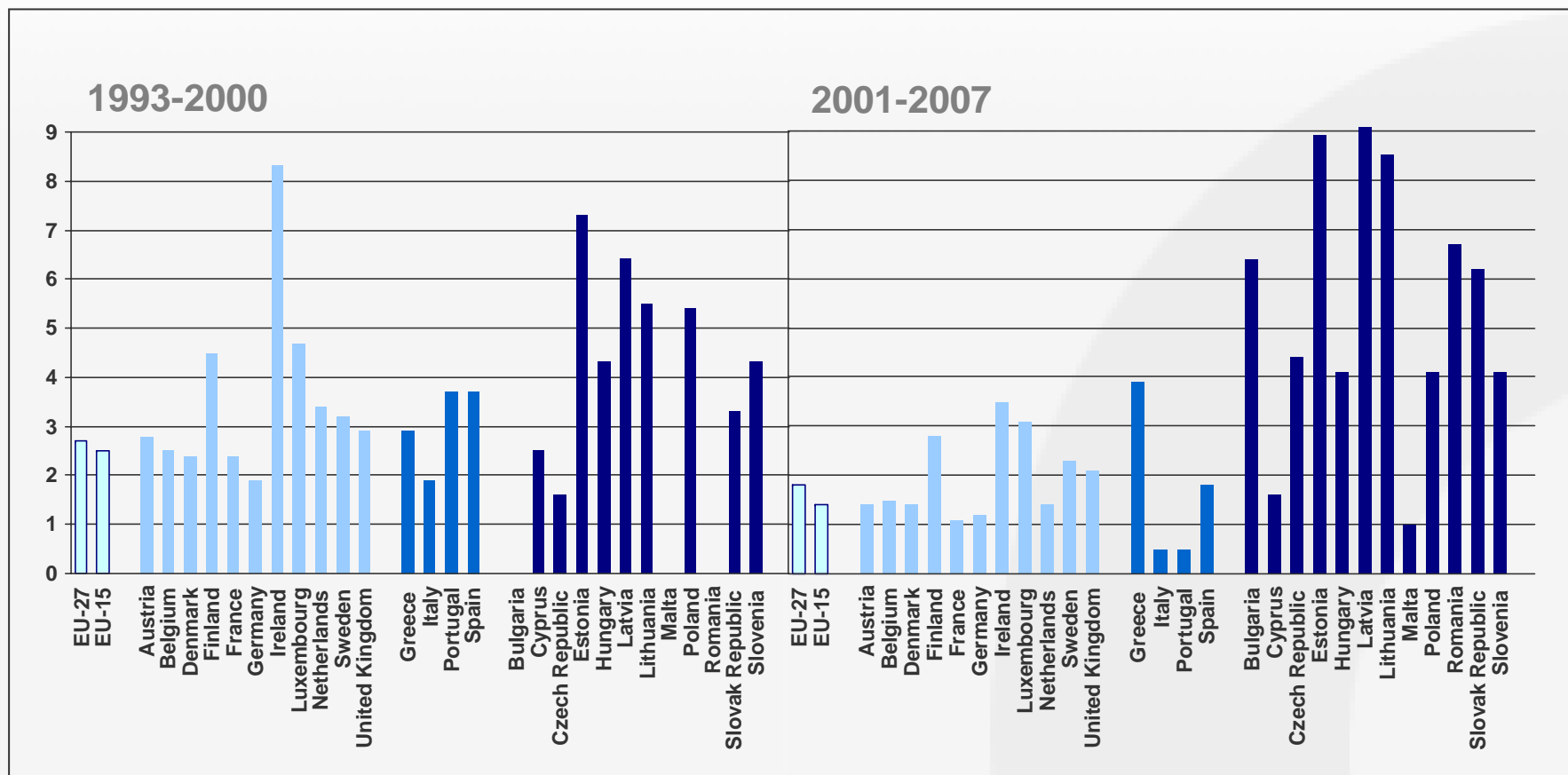


Share of GDP – GDP per capita (PPP), 2007



GDP per head, real growth

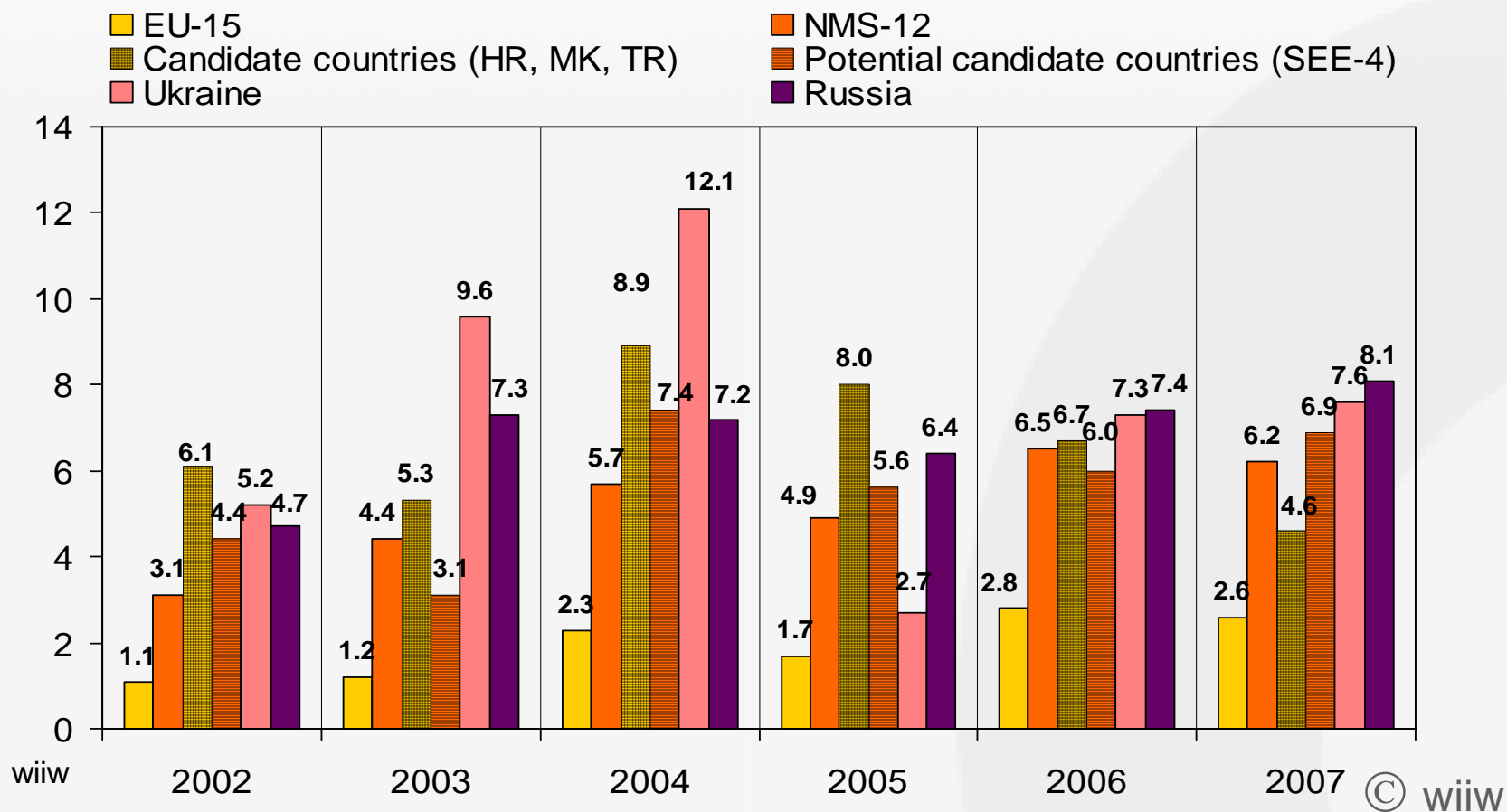
annual averages 1993-2000 and 2001-2007, in percent
EU-27 countries



Source: Eurostat.

Growth of gross domestic product: Wider Europe

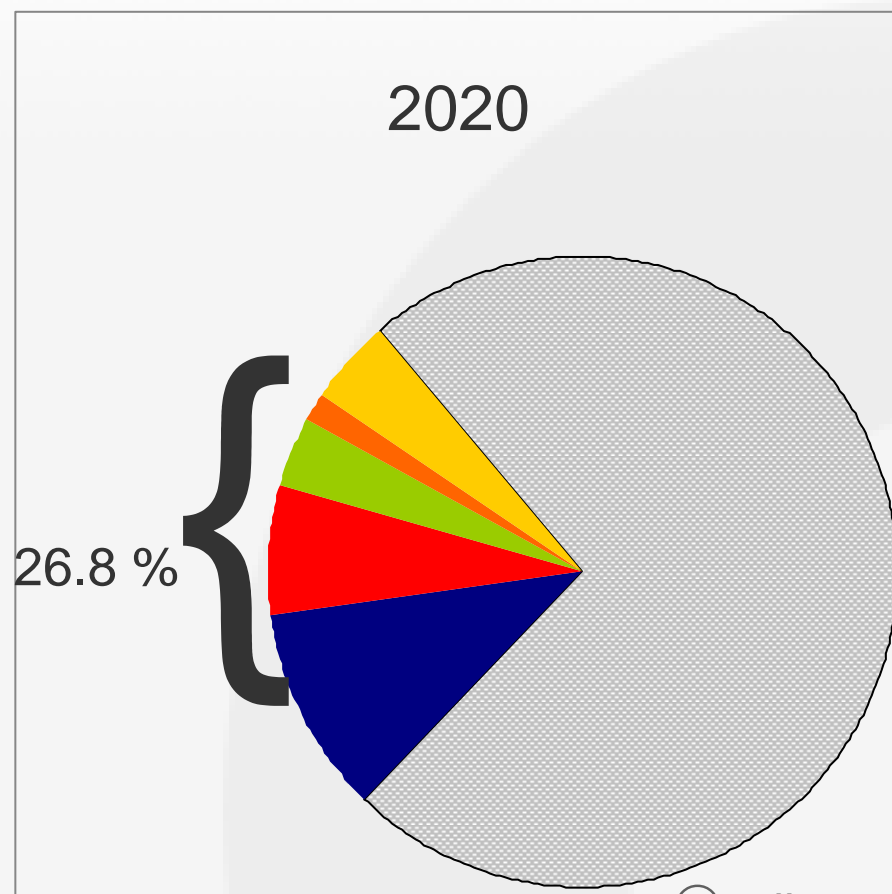
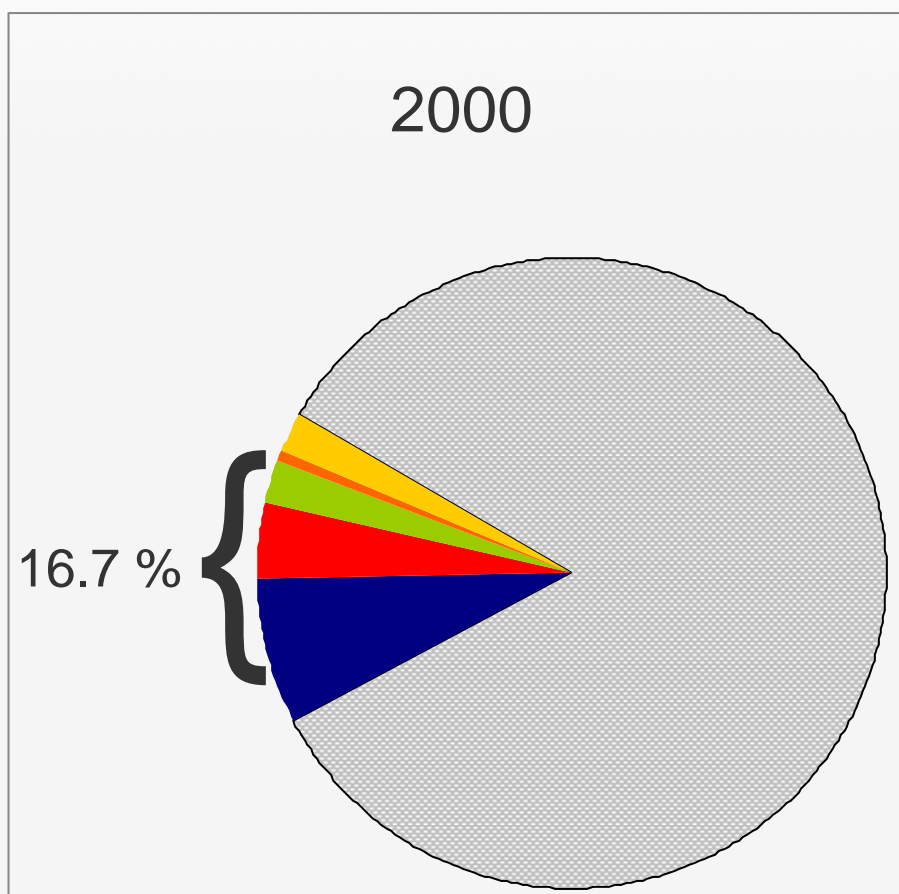
% annual change, 2007 and 2006-2020 forecasts



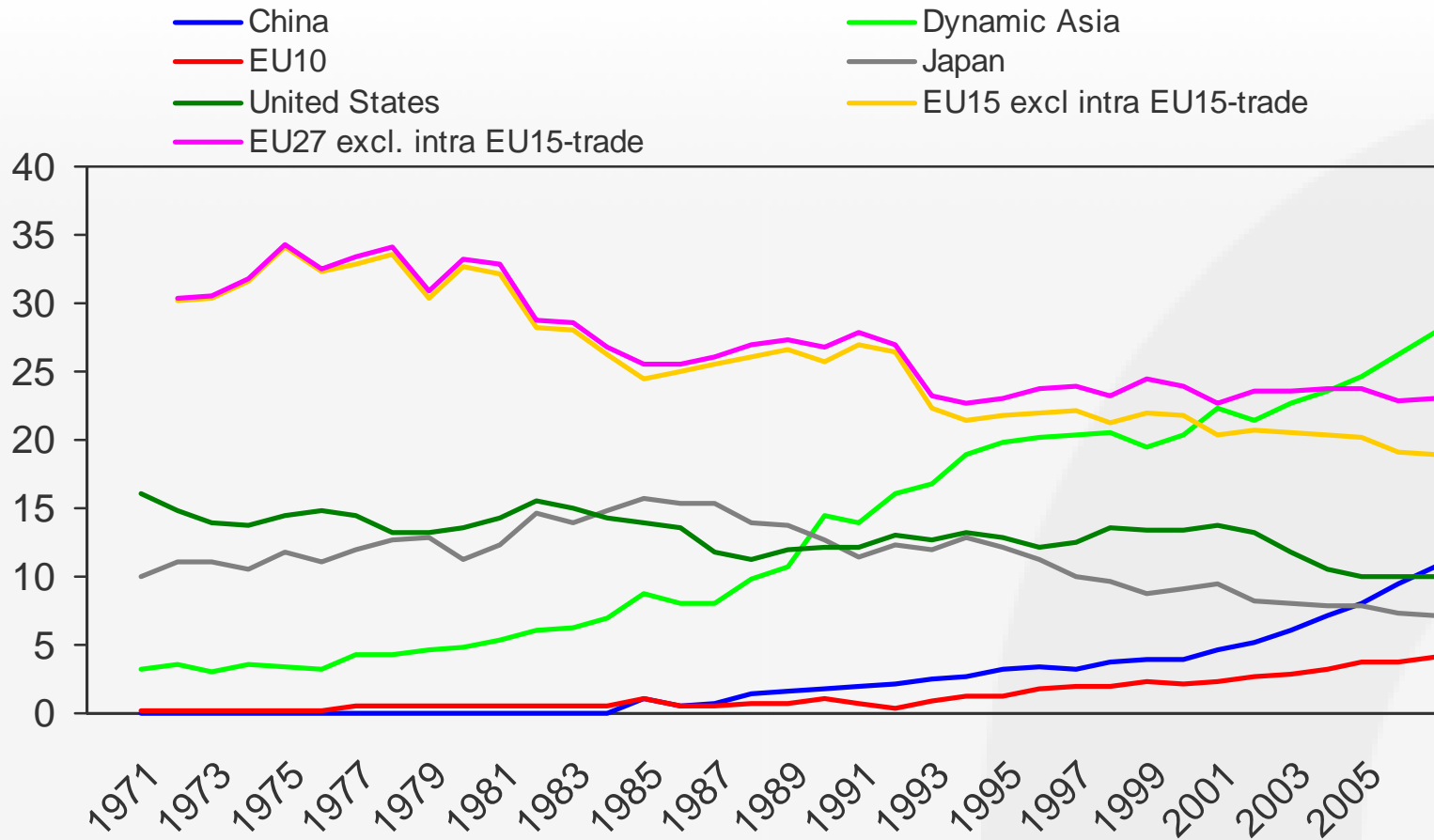
Shares of gross domestic product

% of total GDP

■ EU-15 ■ NMS-10 ■ Turkey ■ CCS-3 ■ SEE-4 ■ Ukraine



Shares in global goods exports, 1970-2006 excluding intra-EU15 trade (in %)



Dynamic Asia includes Tigers 1, Tigers 2, China and India
Source: UN Comtrade

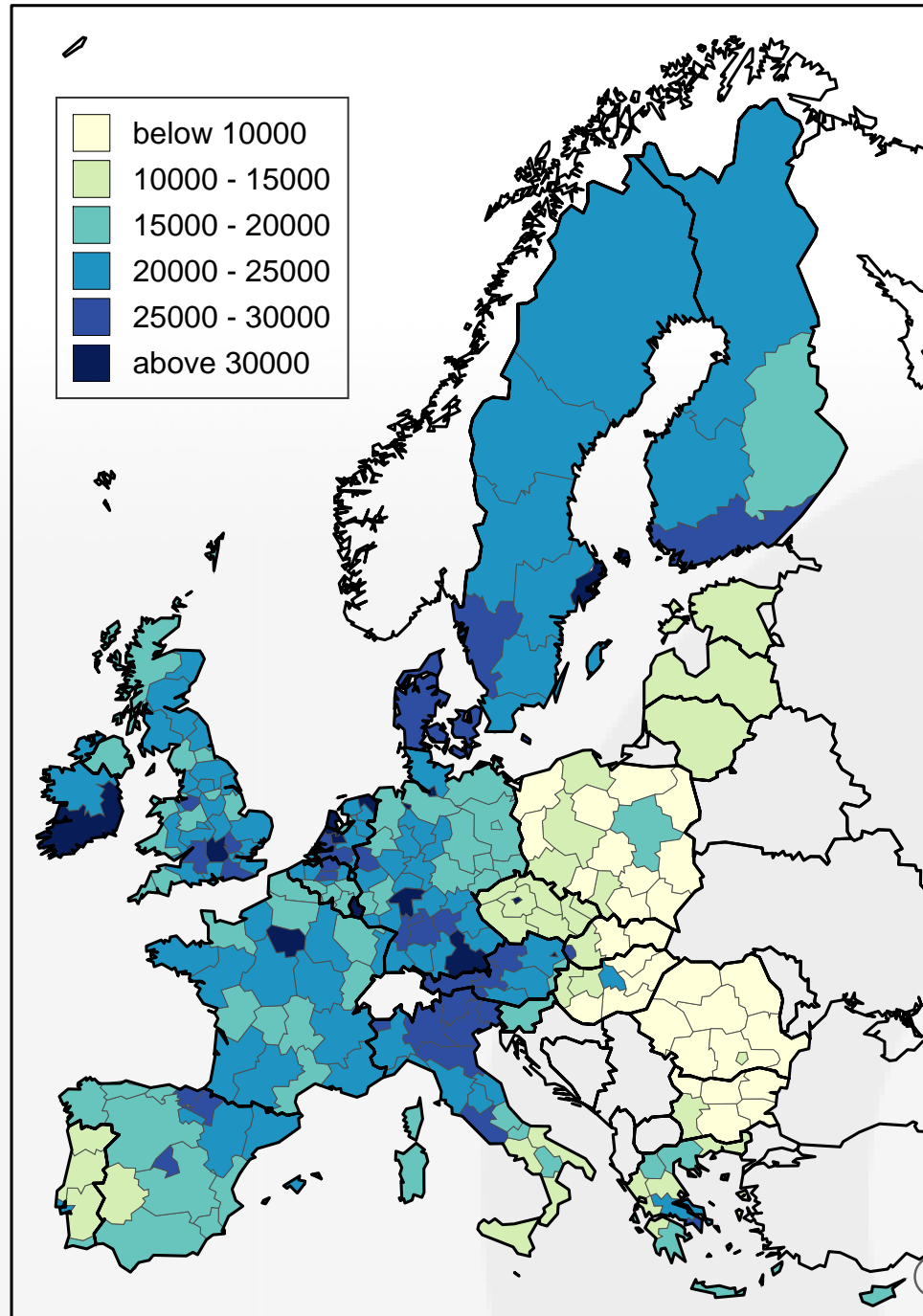
Impact of EU Enlargement

- Increased differentiation: coping with the challenges and the potential of increased heterogeneity
- Challenges for decision-making and the conduct of macroeconomic policies
- Increased budgetary conflicts over the future of EU programs (CAP, Structural Funds, Lisbon Agenda)
- ‚Model competition‘ in the enlarged European Union

Topic 2: Regional differentiation and specialisation

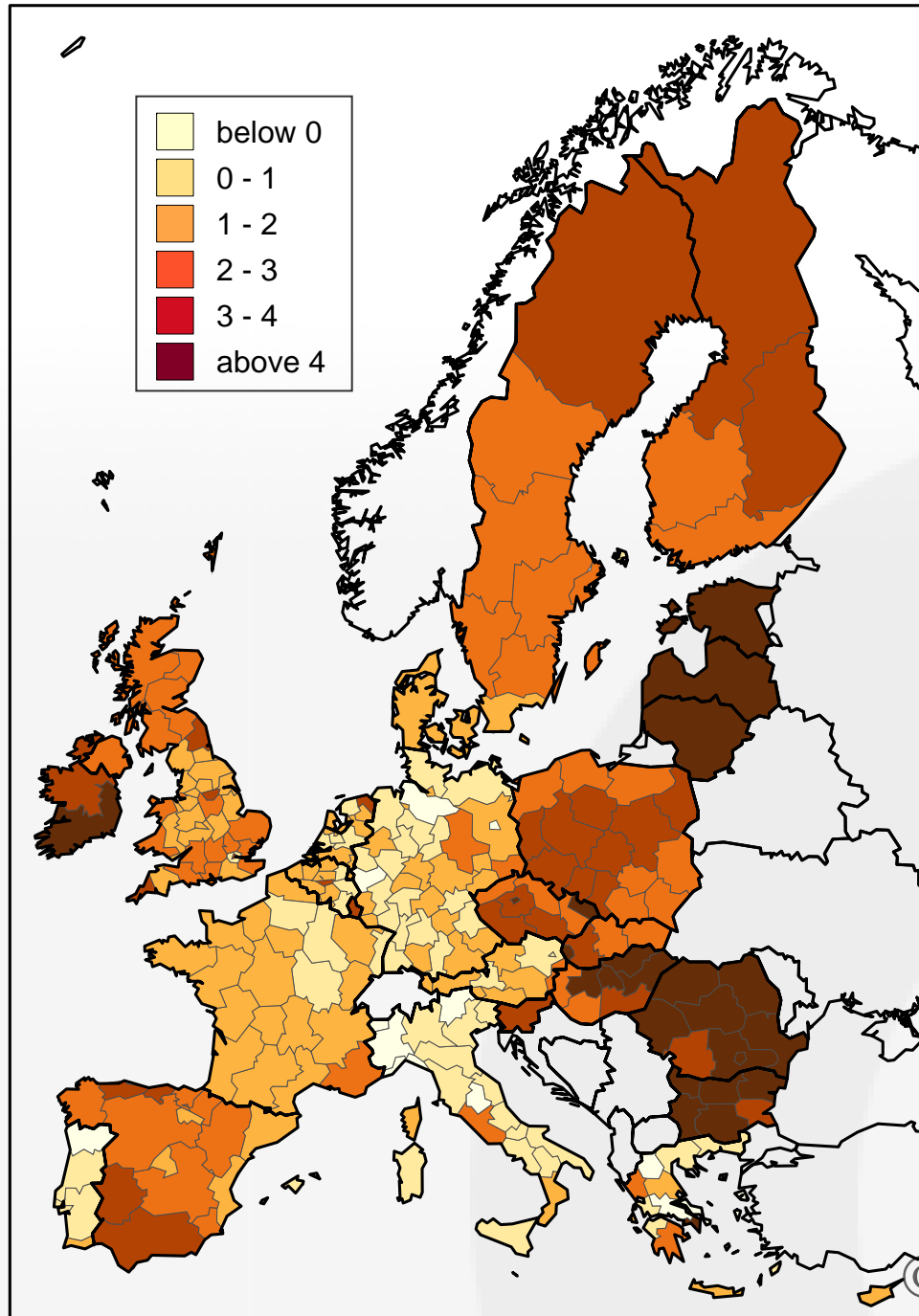
- Regional income and growth differentiation
- Differences in sectoral composition and sectoral specialisation clusters
- ‘Divergence’ at the regional level

Regional GDP per head at PPS, 2005

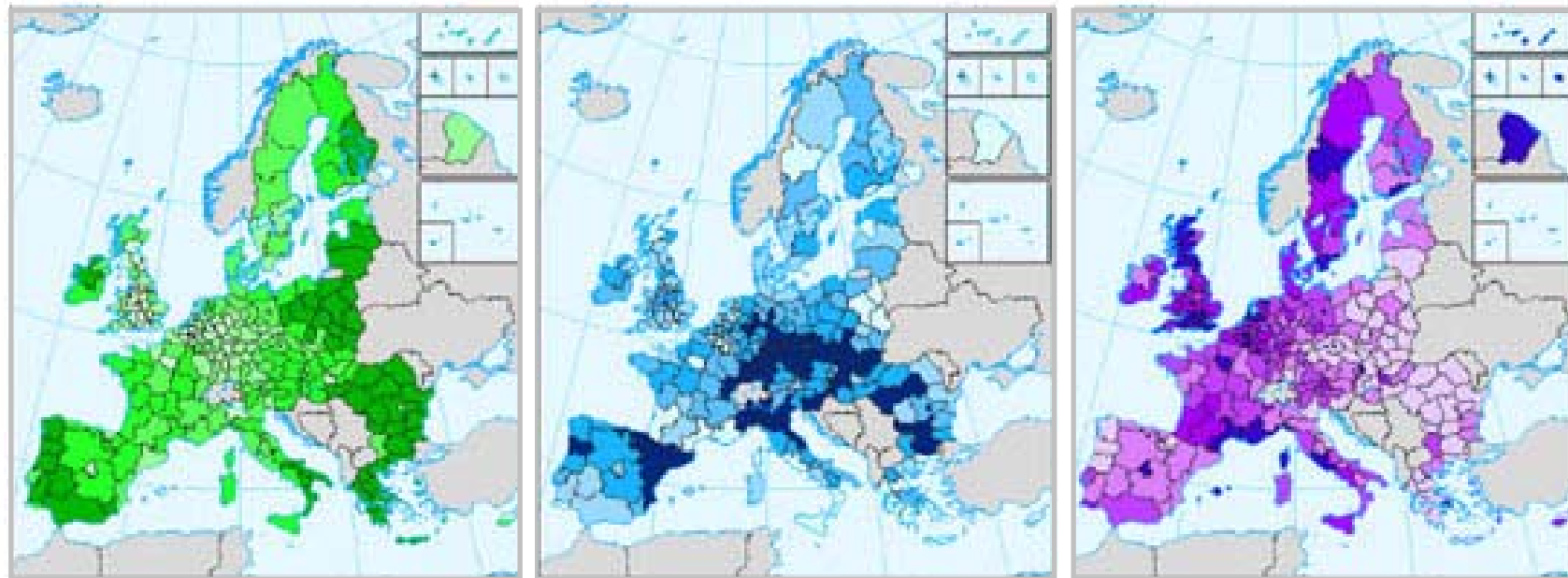


Growth of GDP per head 2000-2006

GDP per head at PPS in
real terms, annual
average growth rate



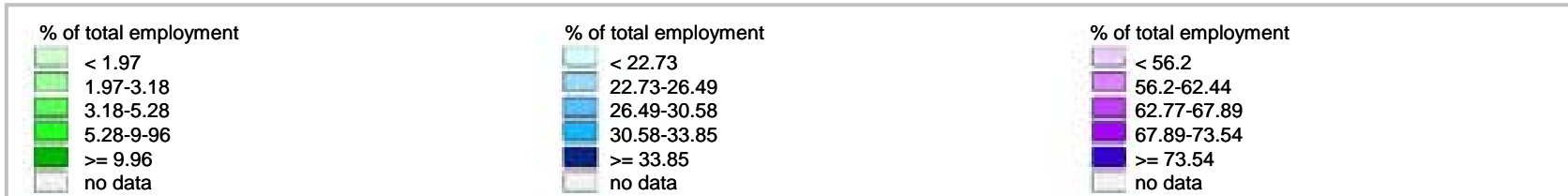
Regional employment pattern by sector, 2002



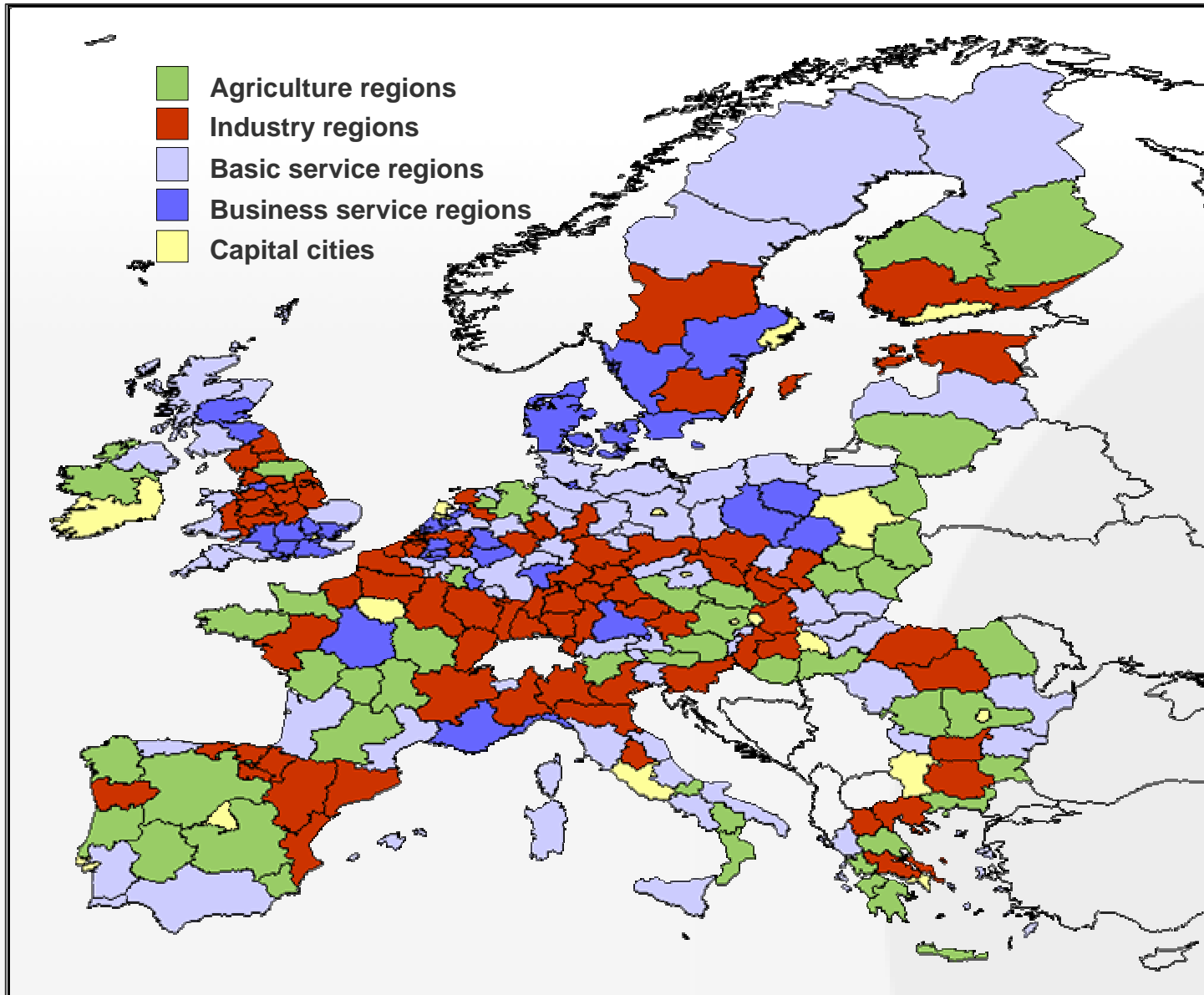
Agriculture

Industry

Services



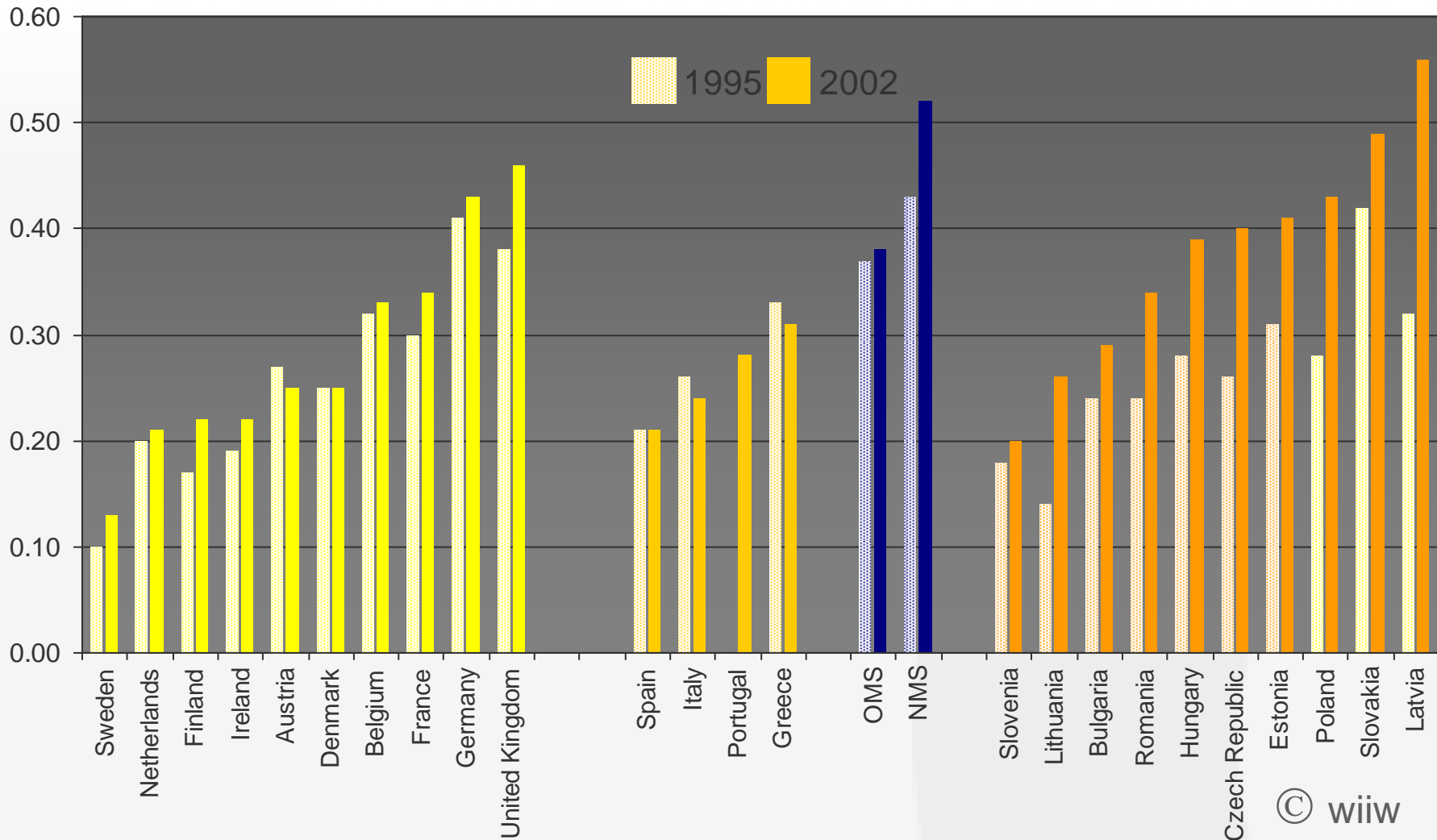
Regional Clusters



Size of regional income disparities in the EU-27 regions

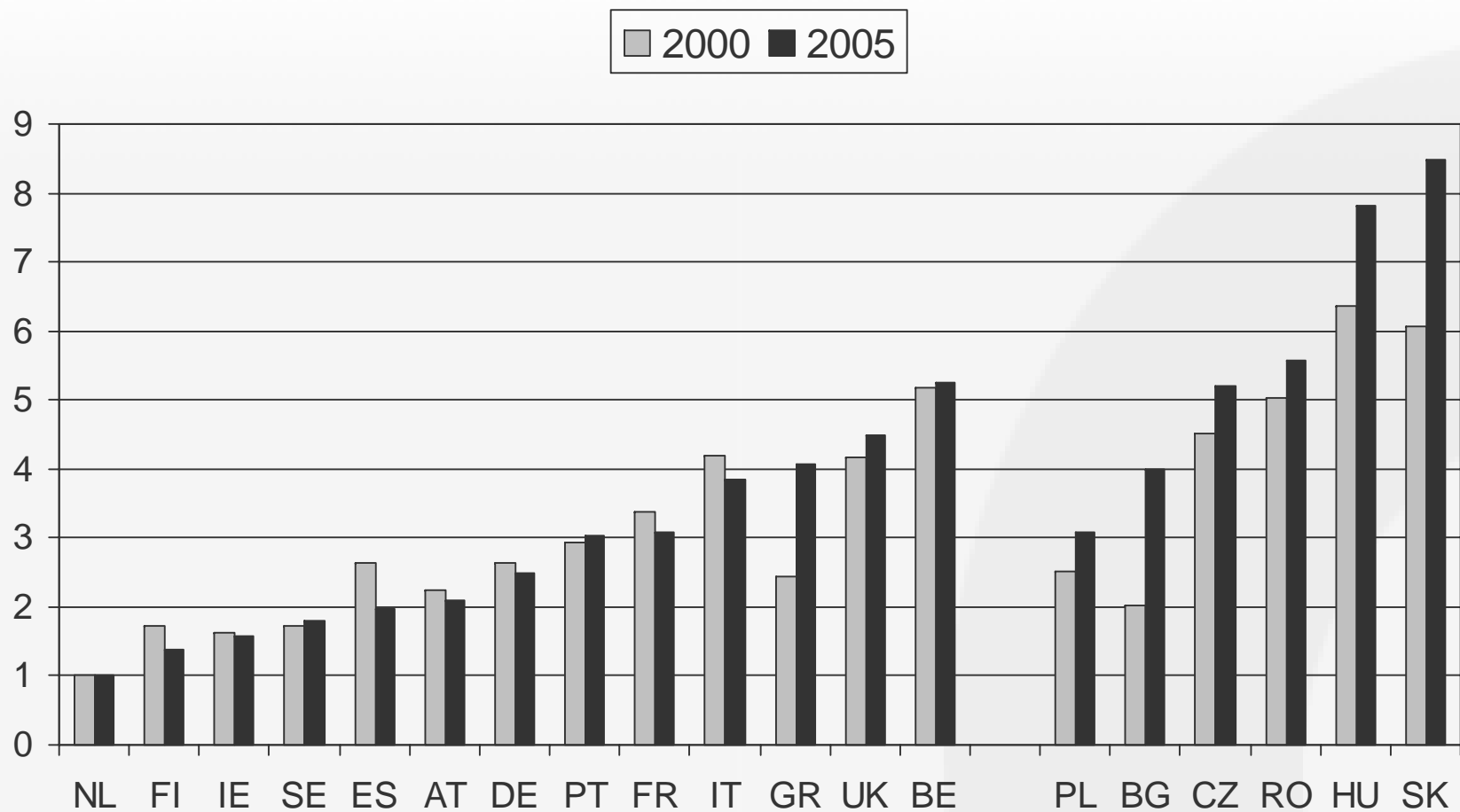
Coefficient of Variation, regional GDP per capita at PPS.

NUTS-3 regions, 1995 & 2002

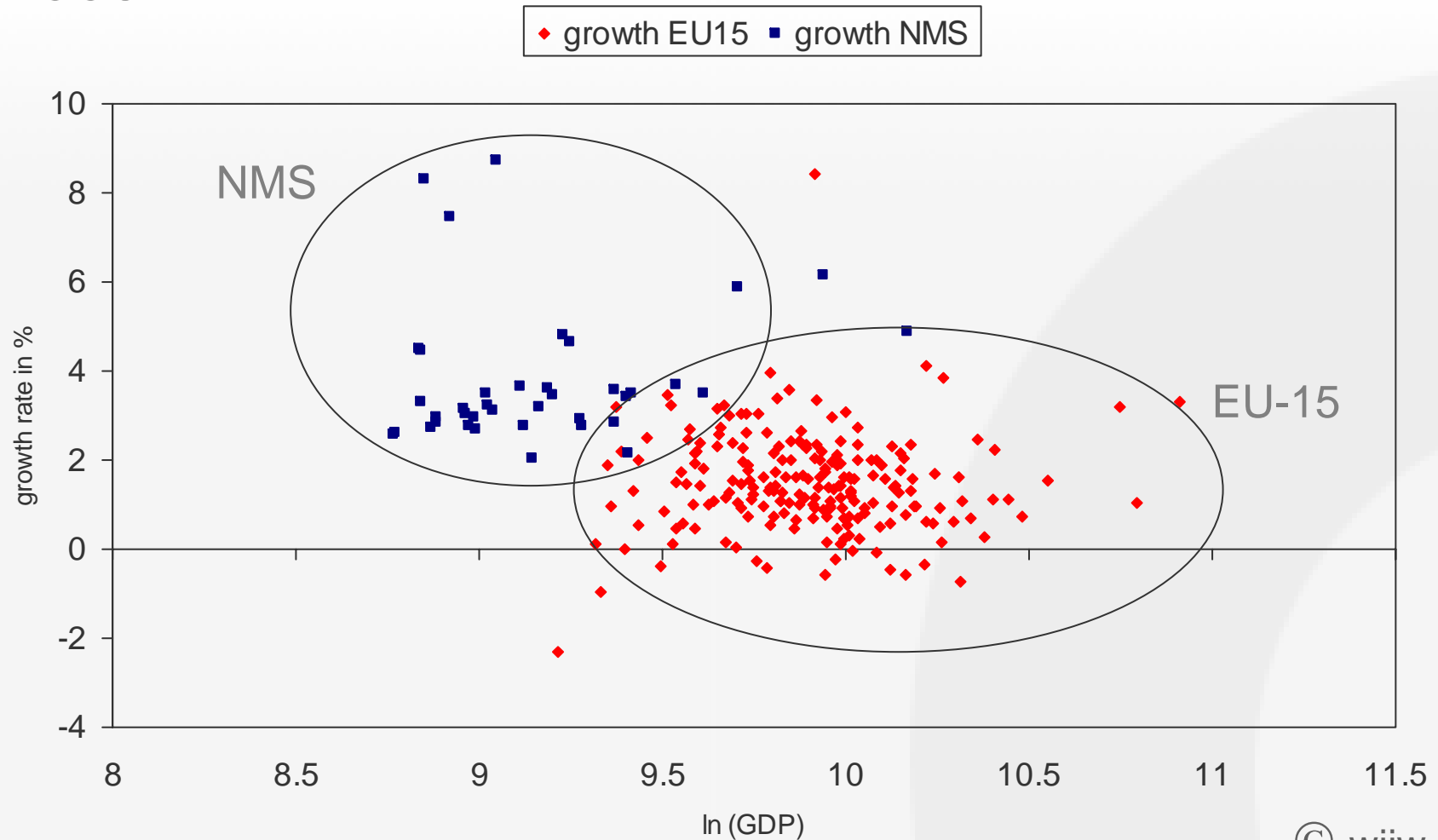


Regional Inequality in GDP per head, 2000-2005

(mean logarithmic deviation)



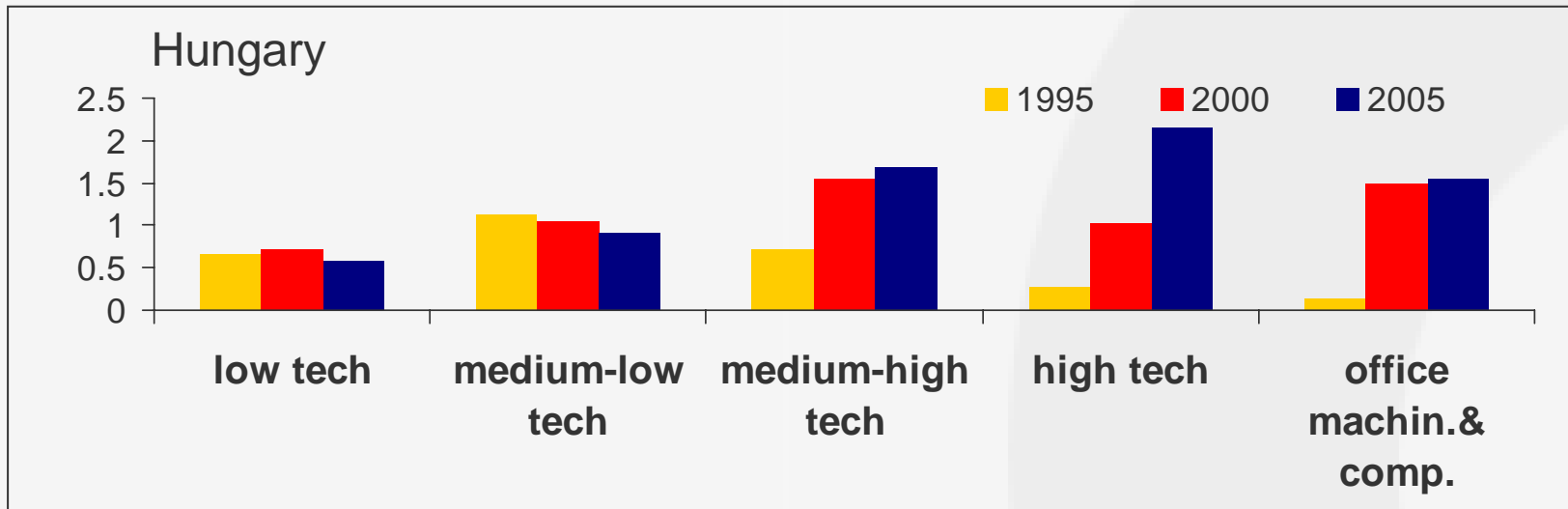
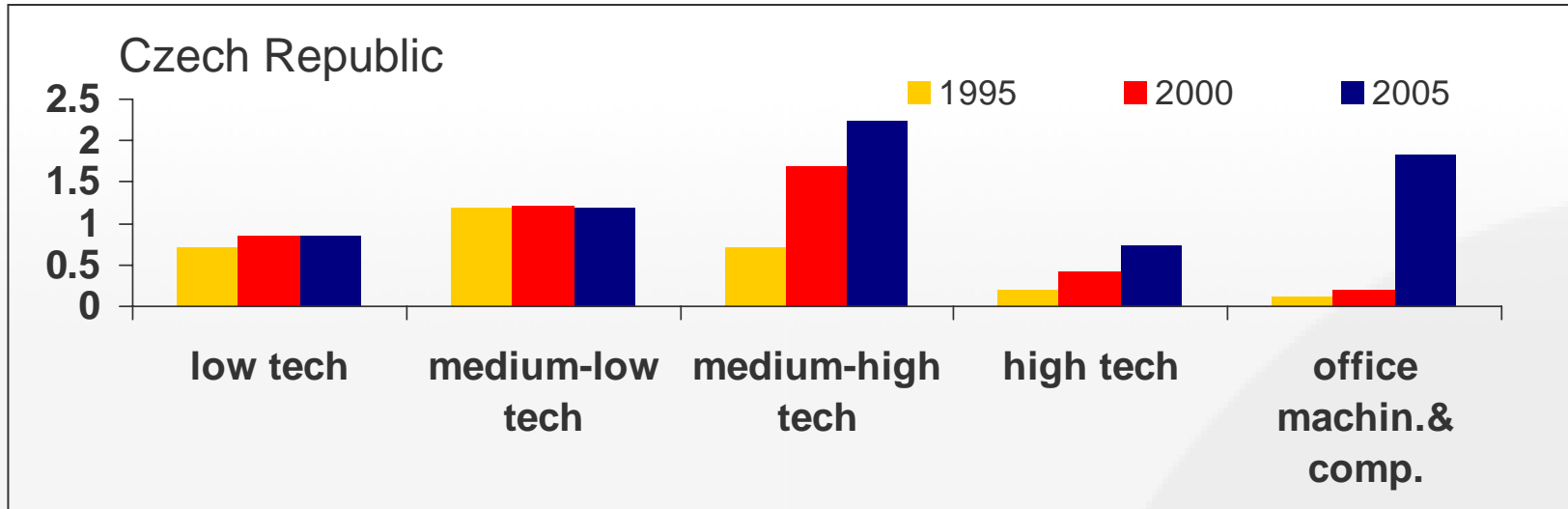
Regional convergence in GDP per head, 2000-2005



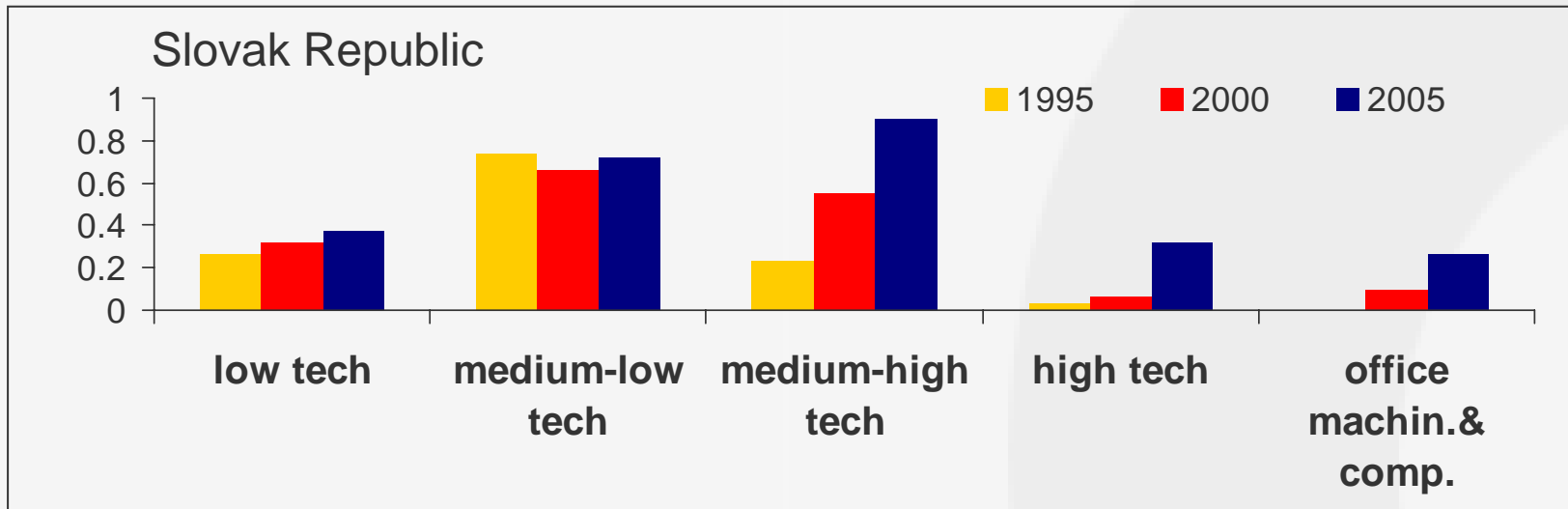
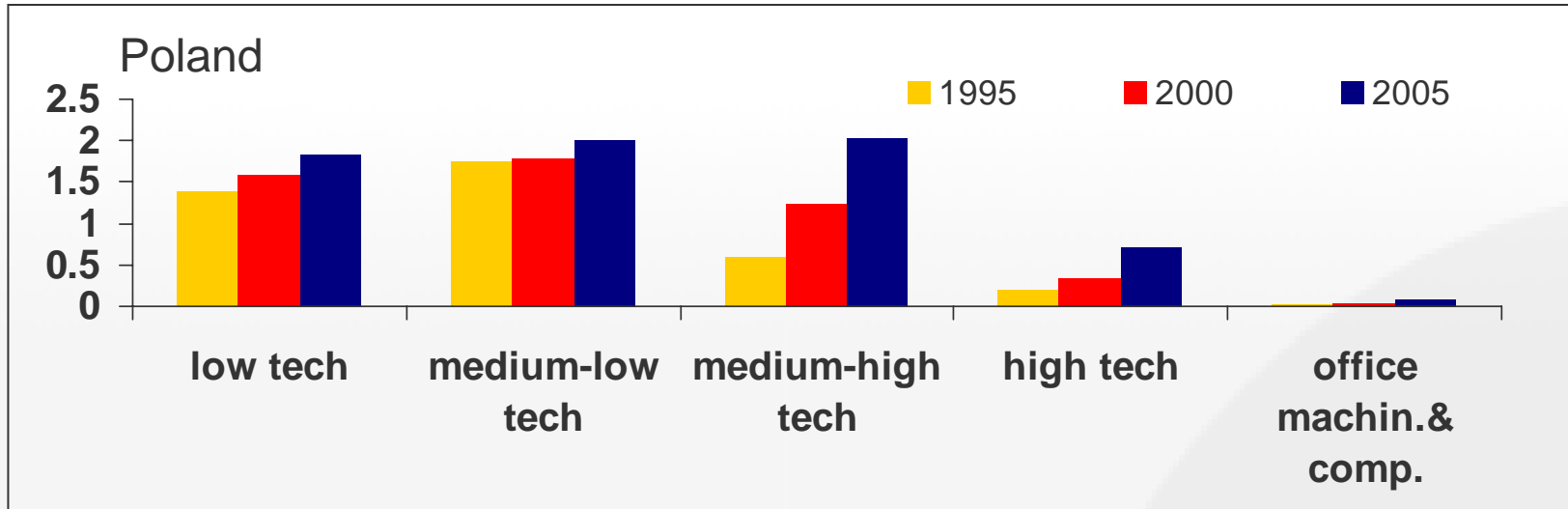
Topic 3: EU-27's new division of labour – trade patterns

- Qualitative catching-up processes
- Substantial shifts in market shares
- Net balances in goods vs. services trade

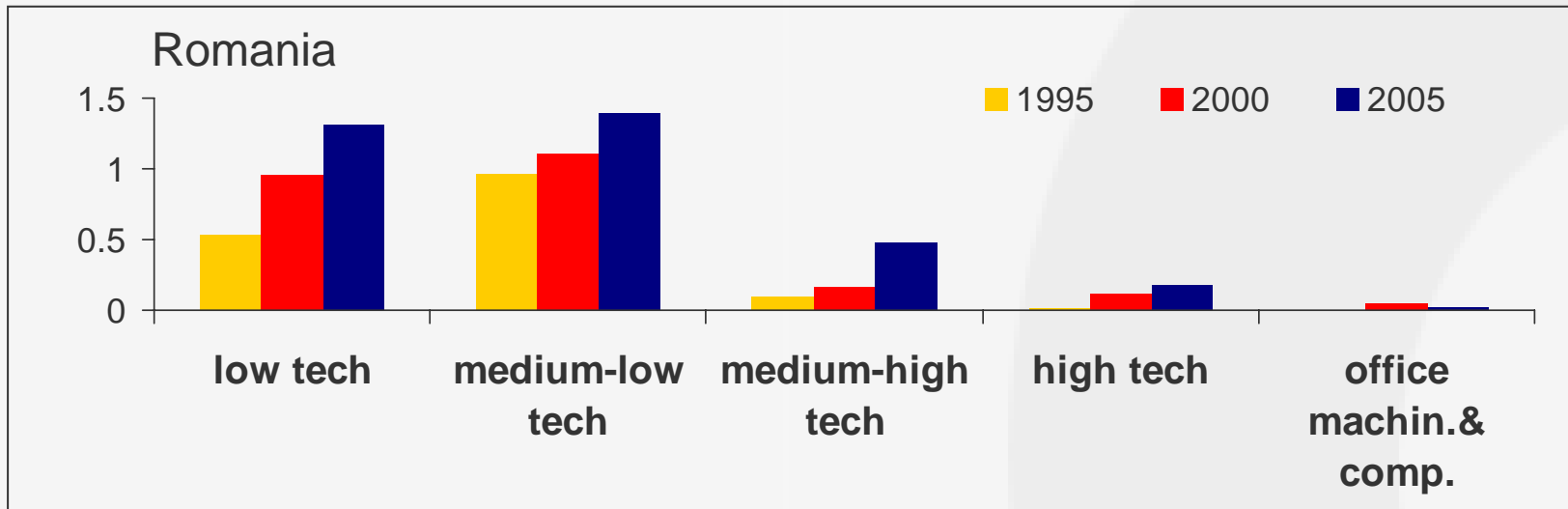
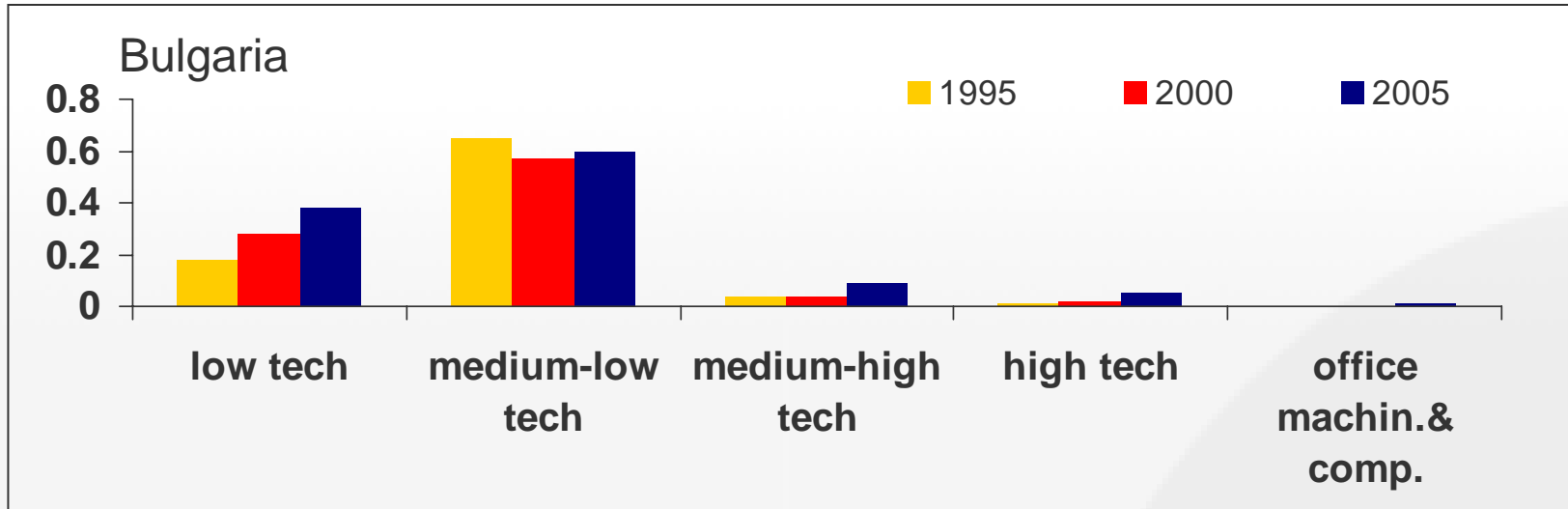
Market shares in EU-25 imports



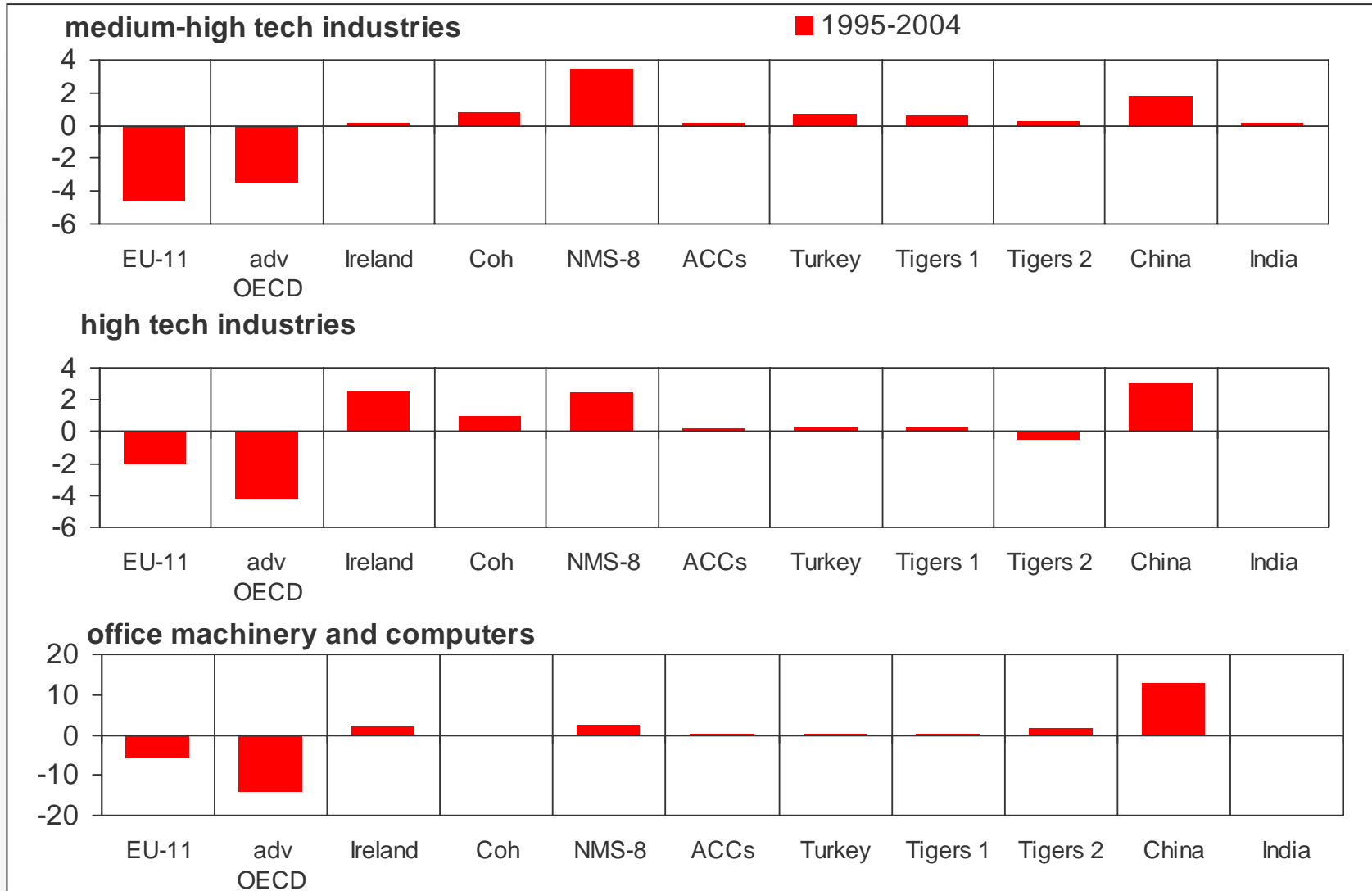
Market shares in EU-25 imports



Market shares in EU-25 imports

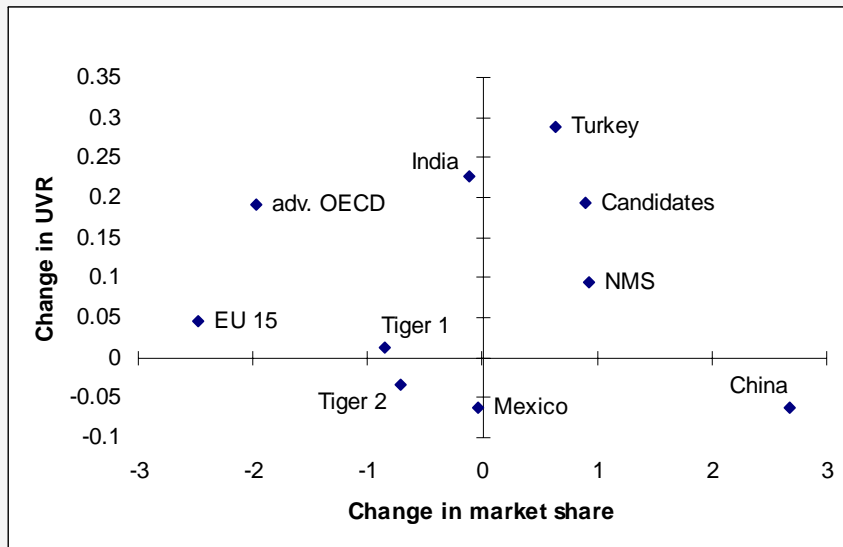


Change in market shares in EU-15 imports in percentage points

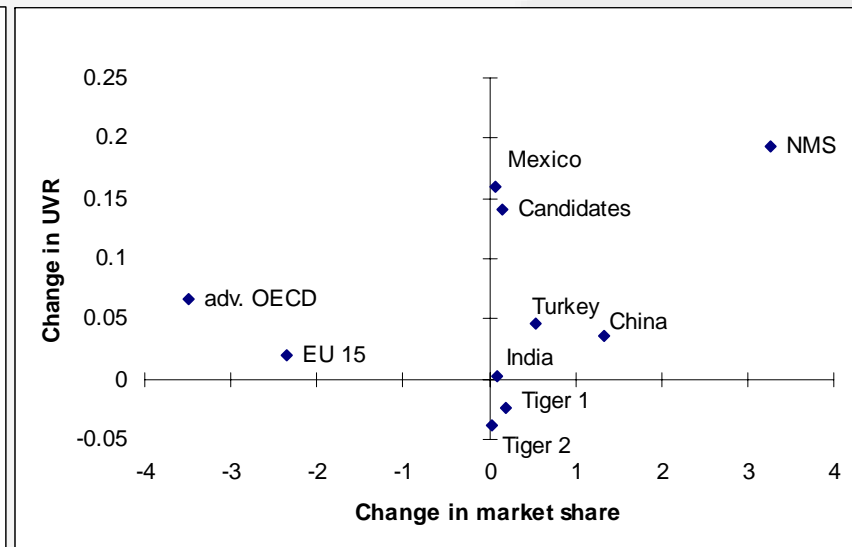


Price and quality competition in EU-15 markets 1995/98 - 2002/04 by country groups

Low tech industries

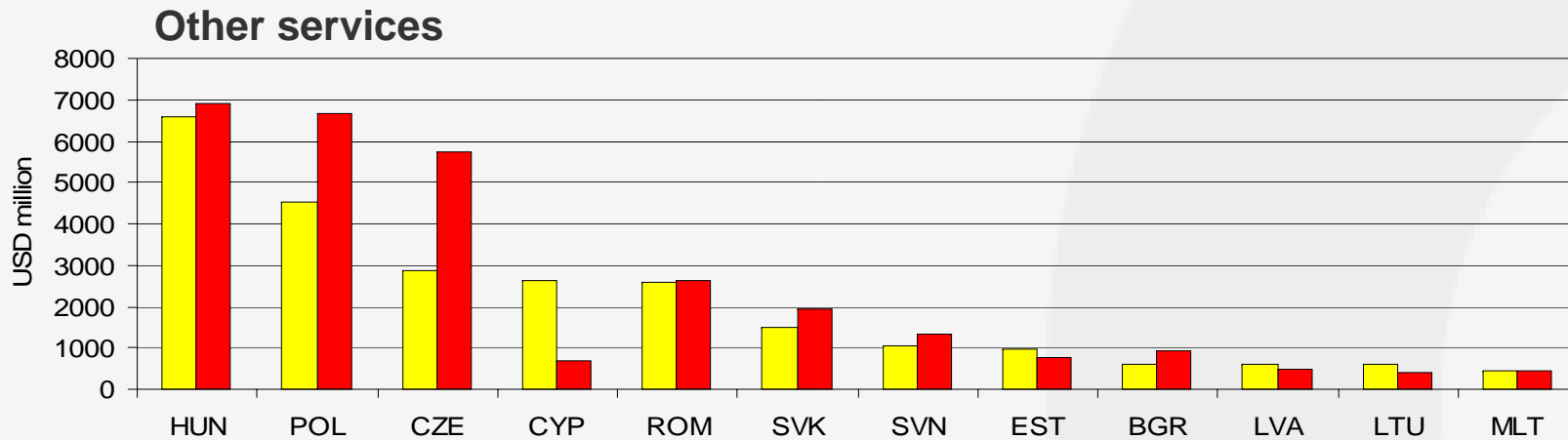
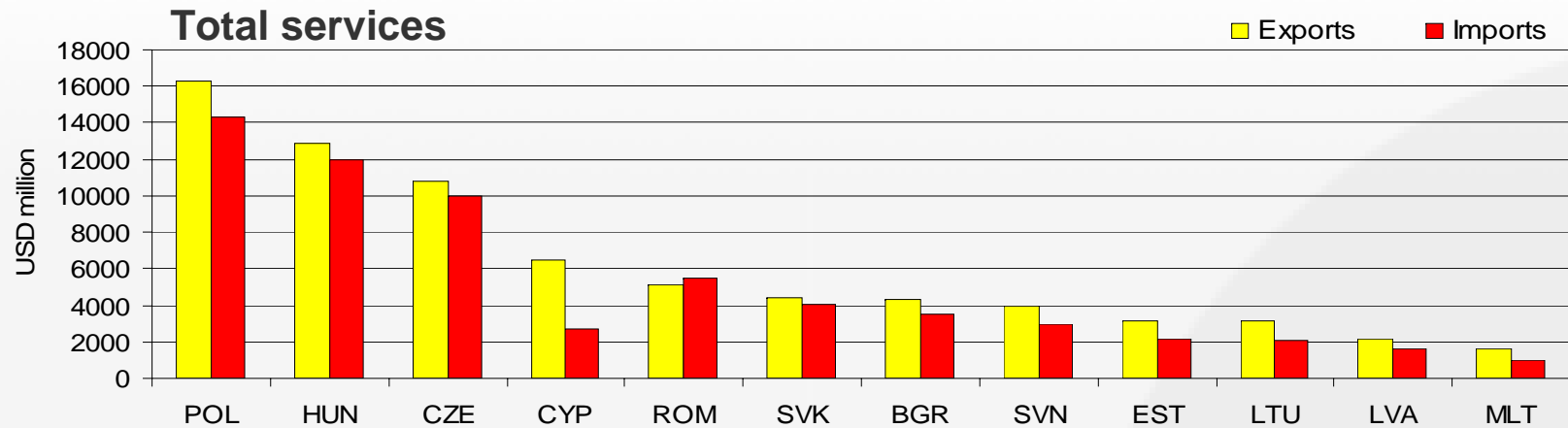


Medium-high tech industries



EU12 trade in services, 2005

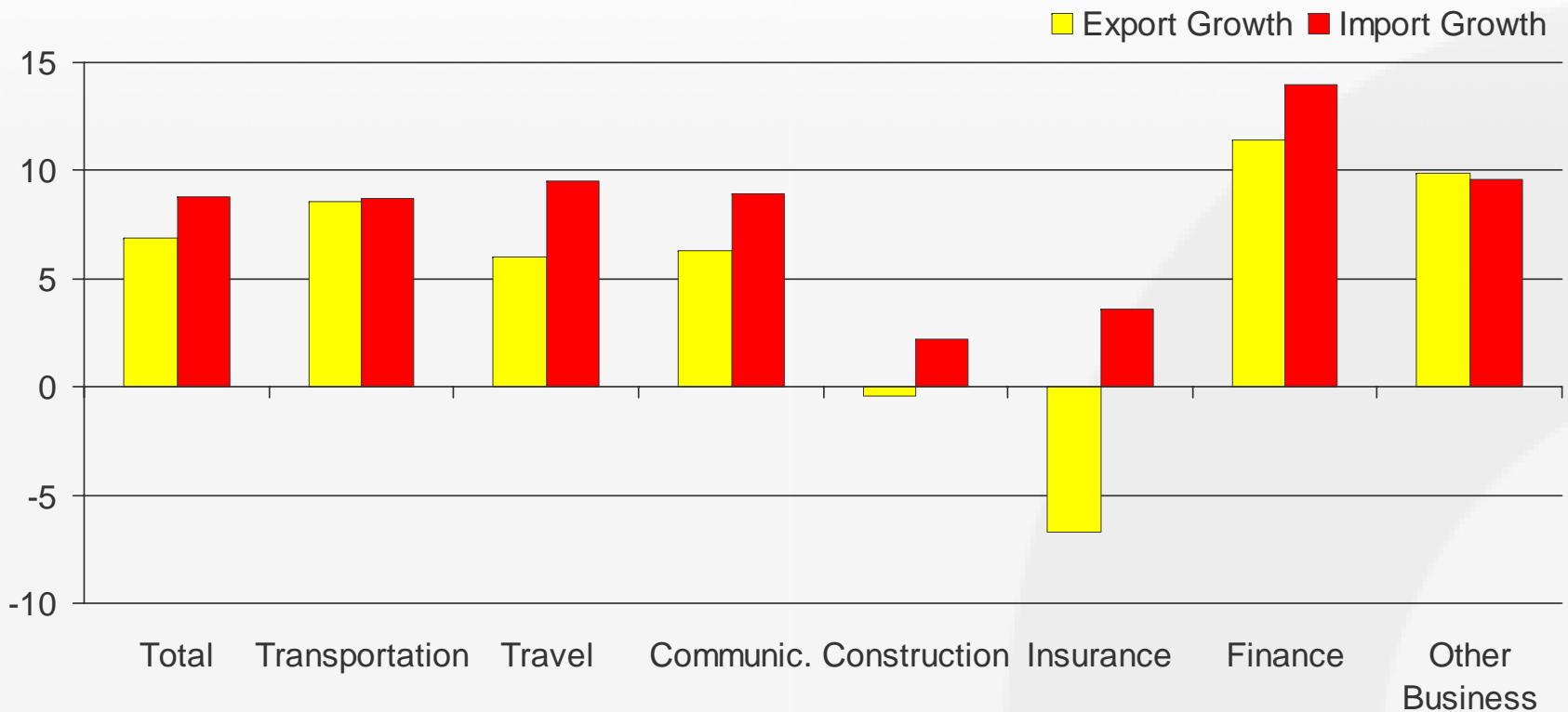
Trade flows in USD million



Source: Eurostat ITS.

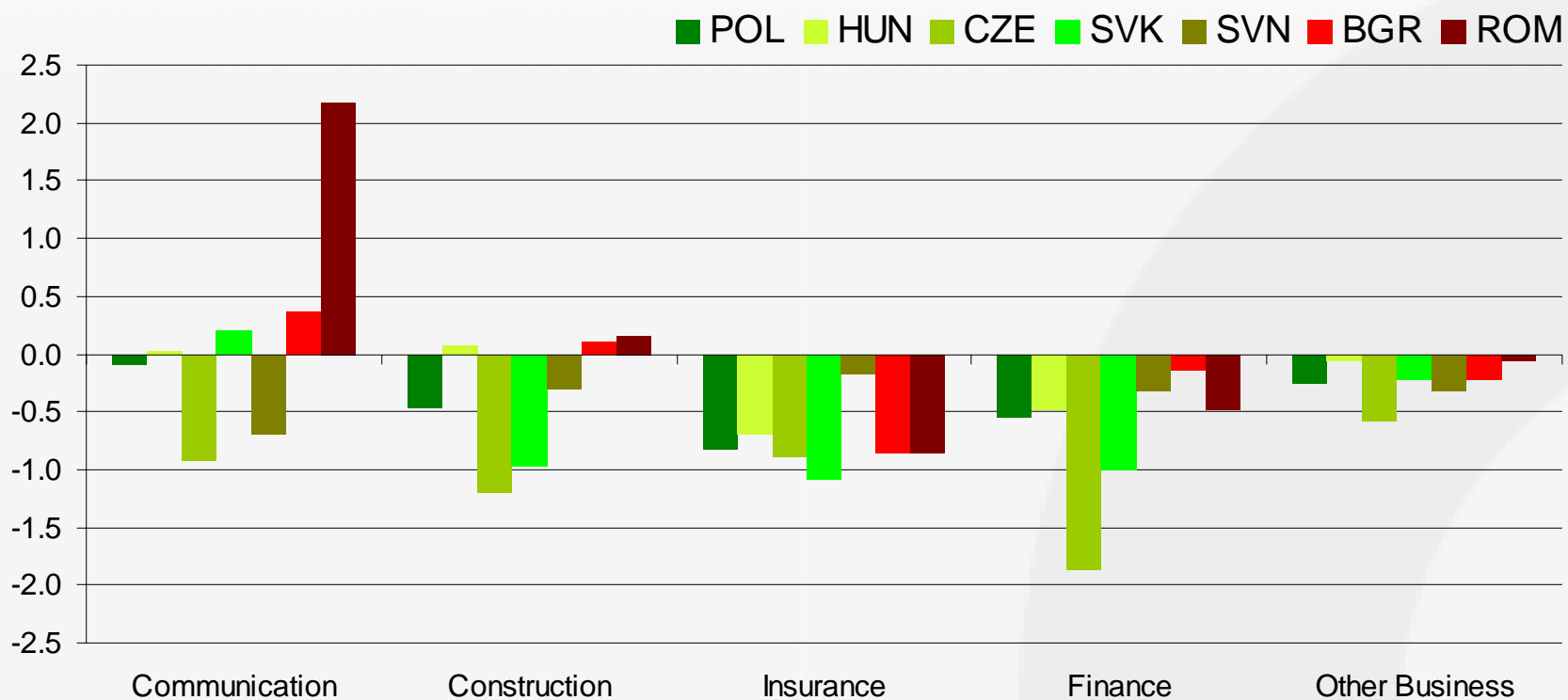
Services trade growth, EU12

long-run average growth rates, 1994-2004



Source: Eurostat ITS.

Revealed comparative advantage in services average 2003-2005



Source: wiiw.

EU-27's new division of labour – summary points

- Evidence of qualitative patterns of catching-up
- Regional differentiation – cross-border clustering phenomena
- NMS regions favourable sites for industrial production
- Net importers of business services
- Outsourcing activities (see below)

Topic 4: Growth and labour markets – the demand for skills

- The U-shaped pattern of employment developments
- The changing employment elasticity of growth and structural change
- Skill-biased pattern of catching-up
- Growing skill demand in outsourcing activities
- Skill and demographic challenges

Employment and GDP growth

1995 = 100

EU-15

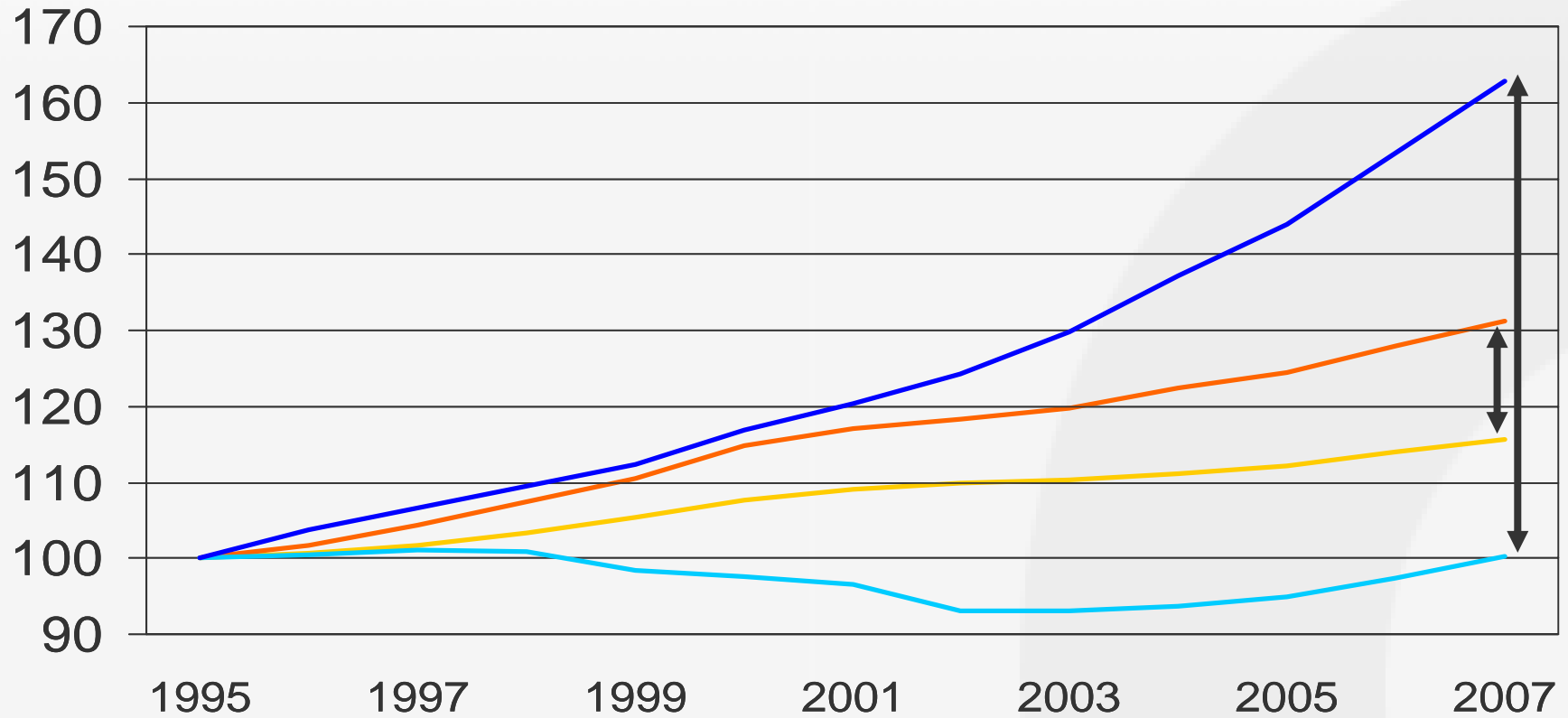
NMS-12

— Employment

— GDP

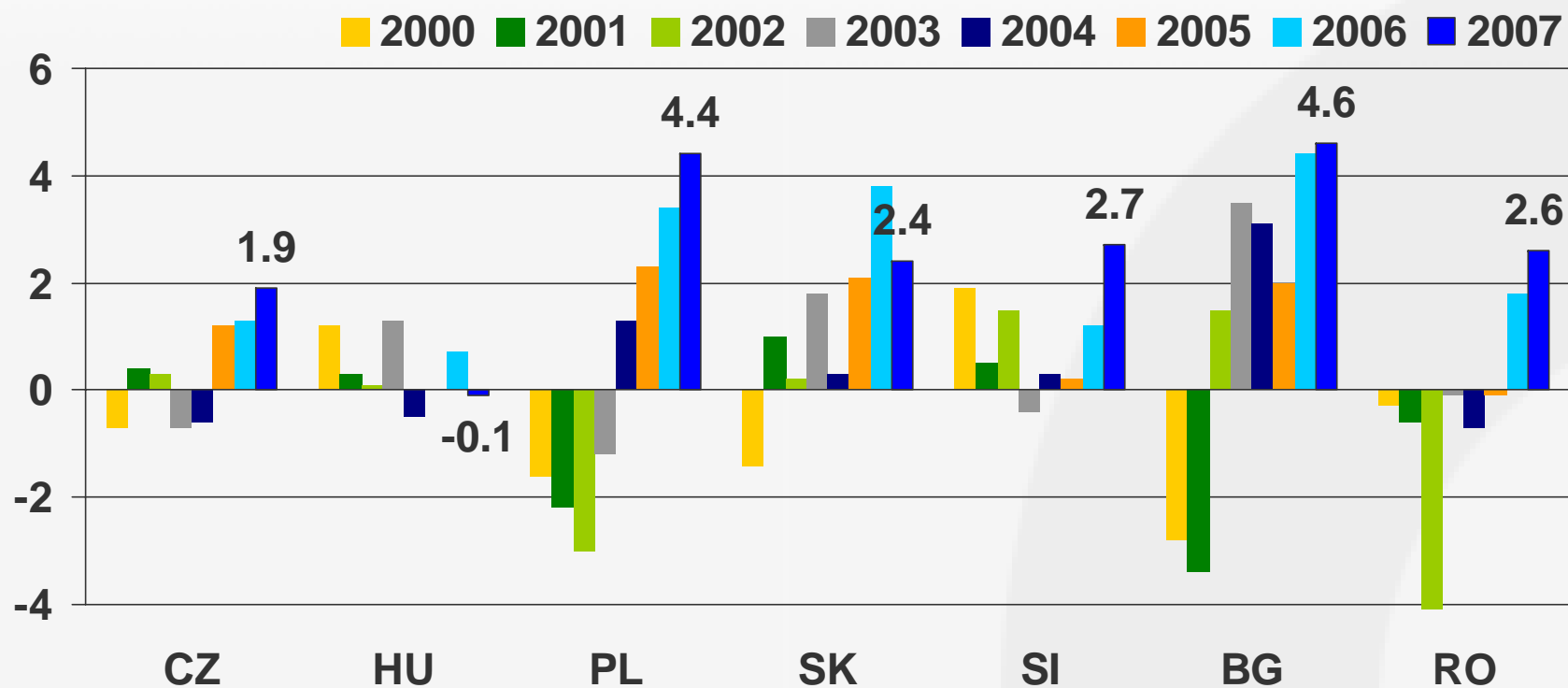
— Employment

— GDP



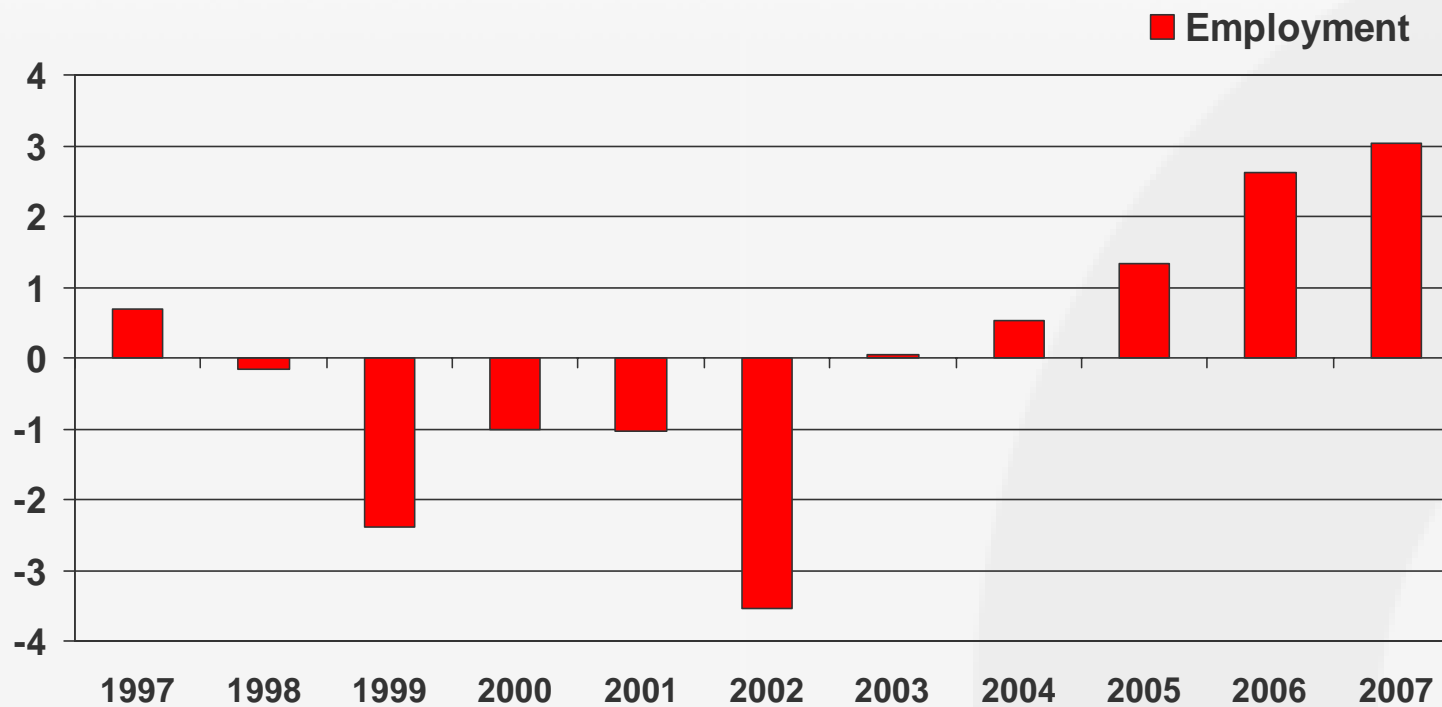
Employment growth rates 2000-2007

in %



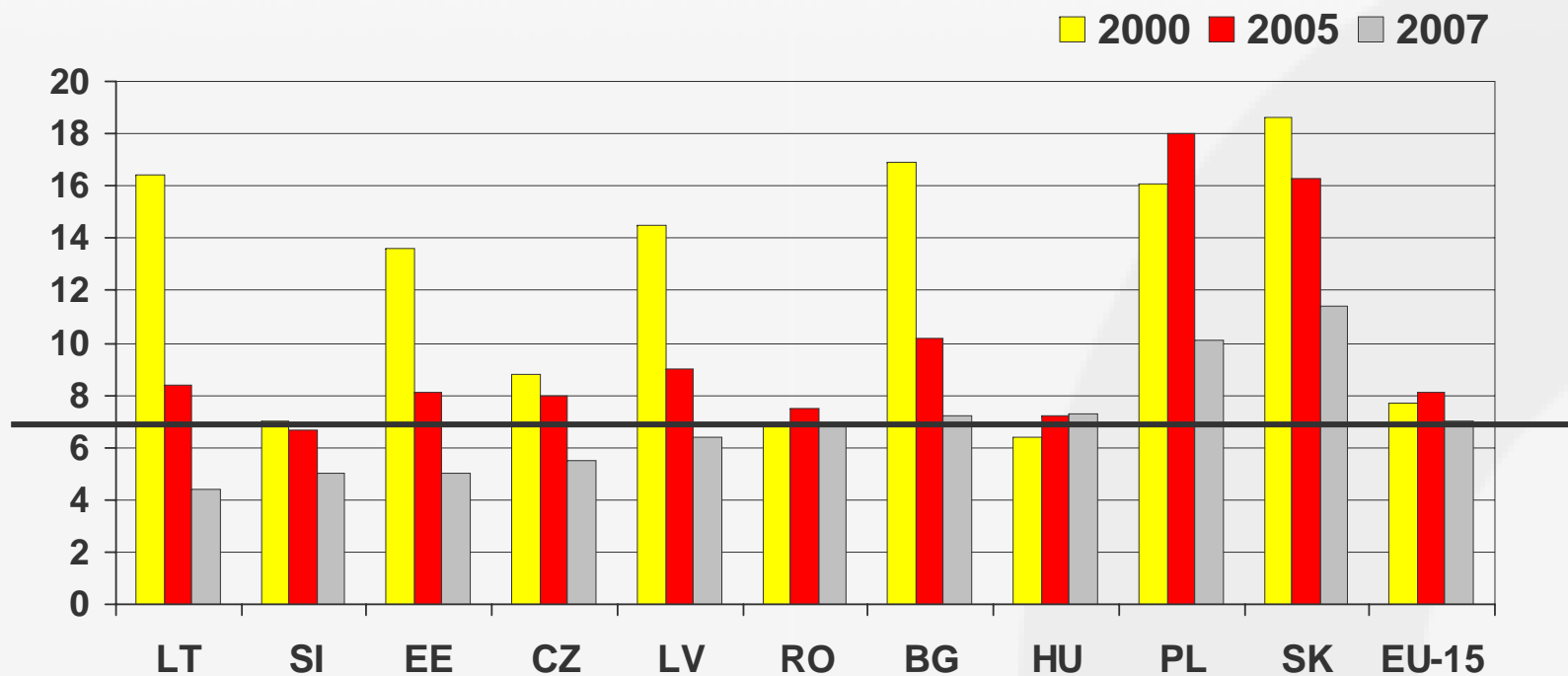
Regime change: From jobless growth to labour shortages?

Employment: Change to previous year in %



Declining unemployment rates

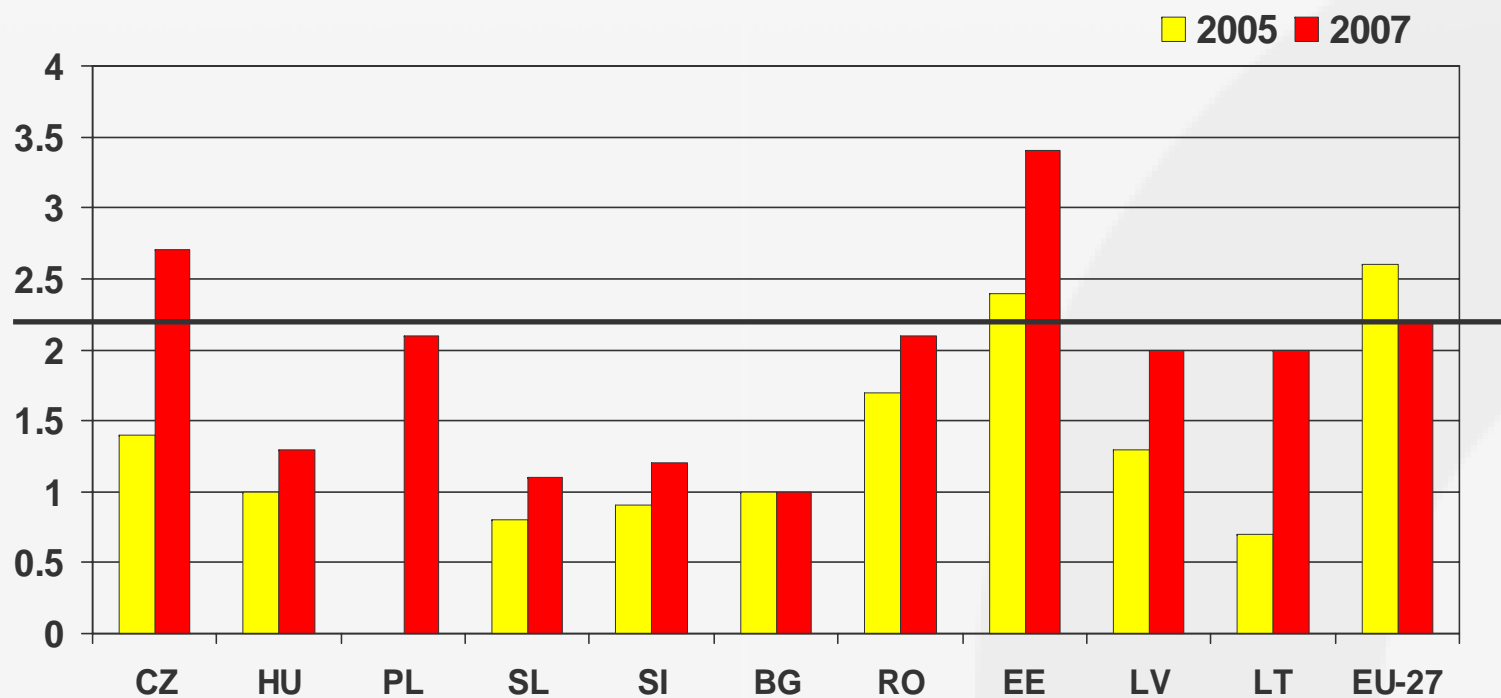
Unemployment rates, in %



Labour shortage indicators rising

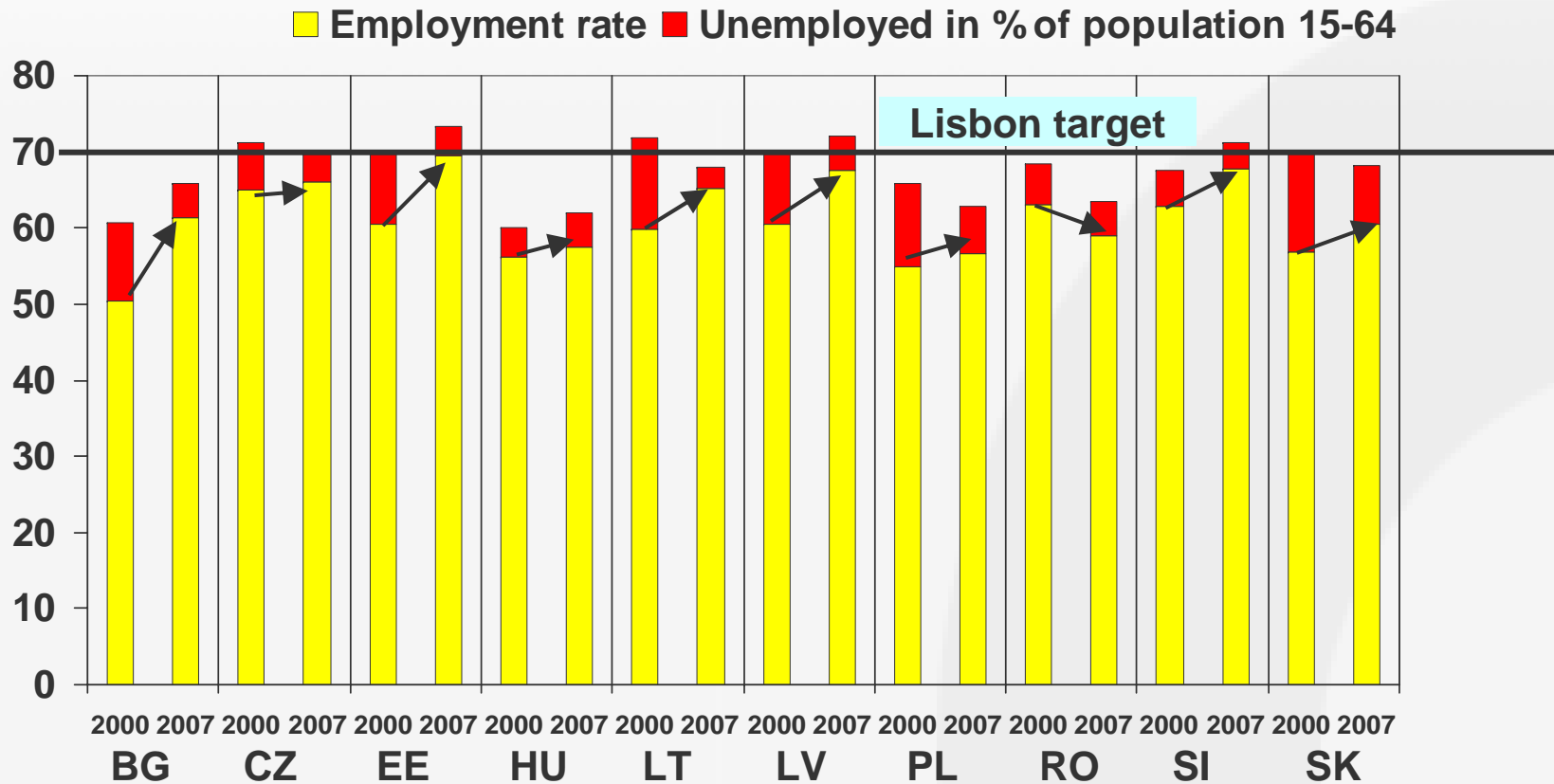
Vacancy rate:

of job vacancies / (# of occupied jobs + # of job vacancies) in %



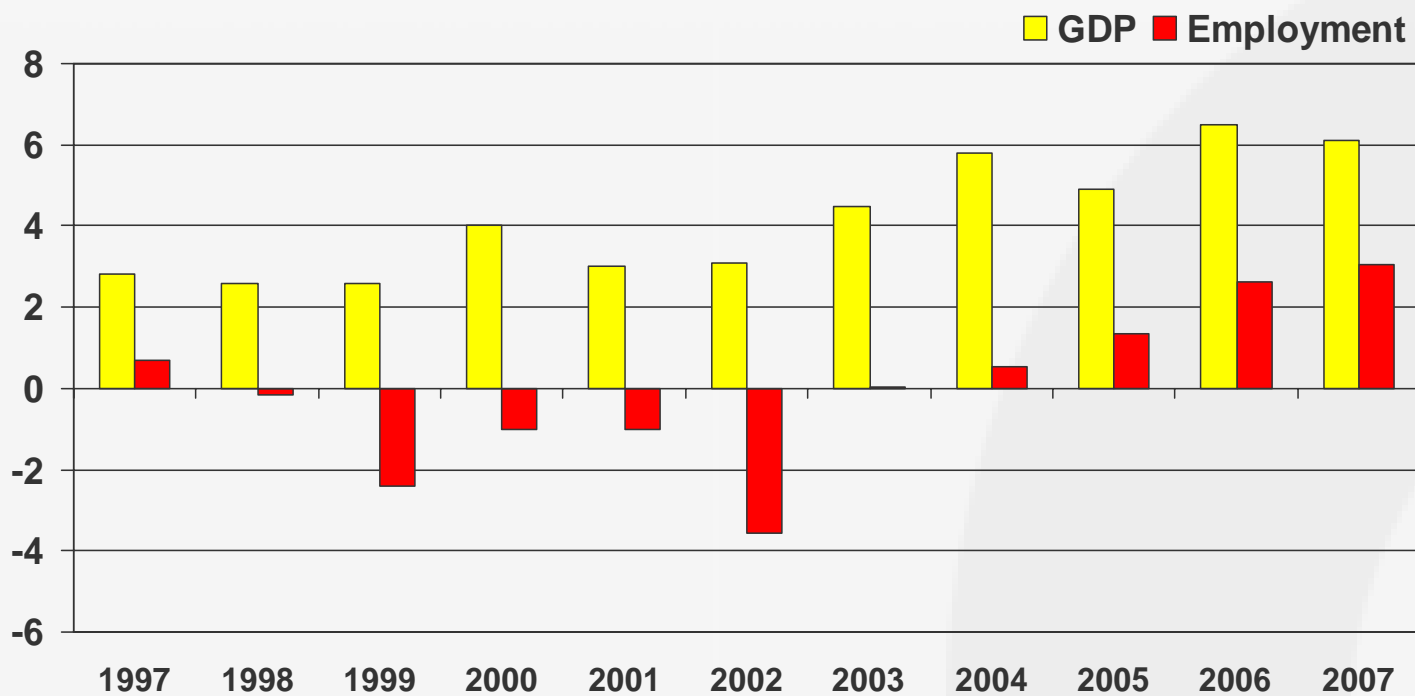
Employment and activity rates in 2000 and 2007

(labour force in % of working-age population 15-64)



Employment and GDP Growth

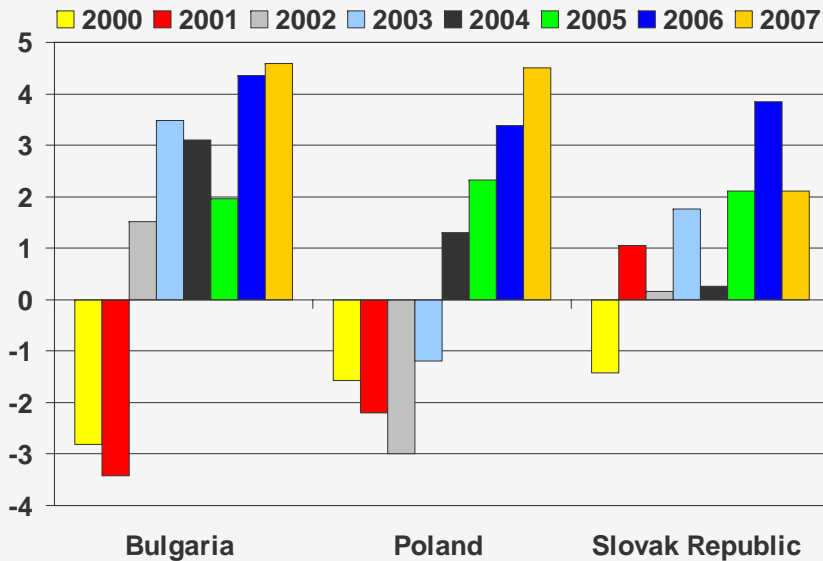
Change to previous year in % in NMS-10



Employment and GDP growth in selected countries, 2000-2007

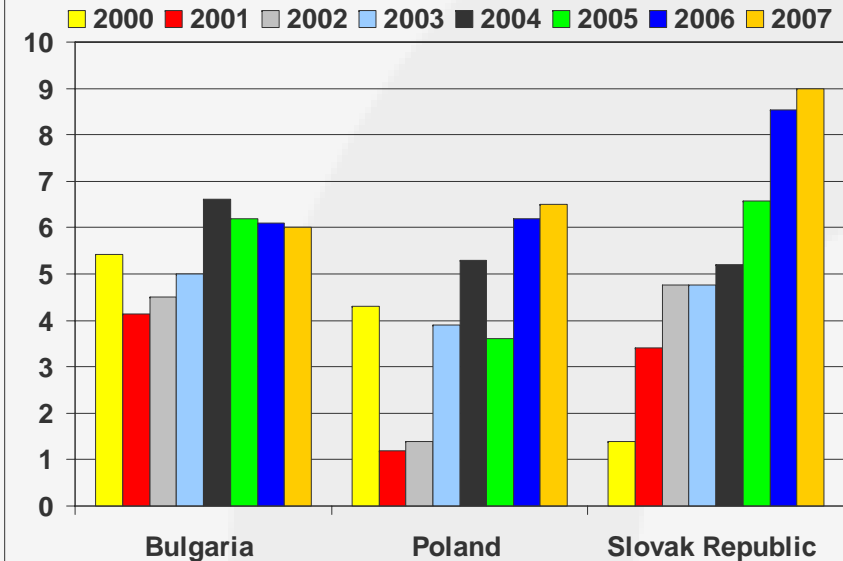
Employment:

Change to previous year in %

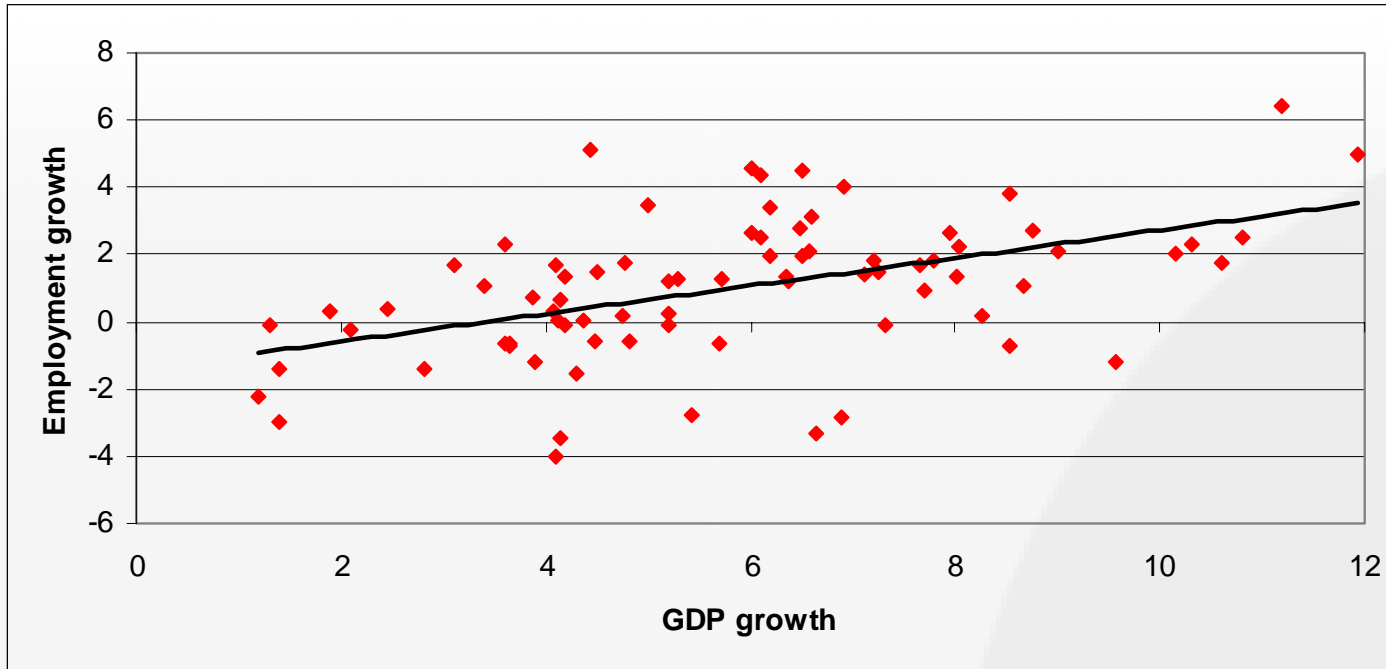


GDP:

Change to previous year in %



Econometric evidence



Employment growth = $-1.42 + 0.41 \text{ GDP growth}$

Treshold level for employment growth: $\sim 3.5 \%$ GDP growth

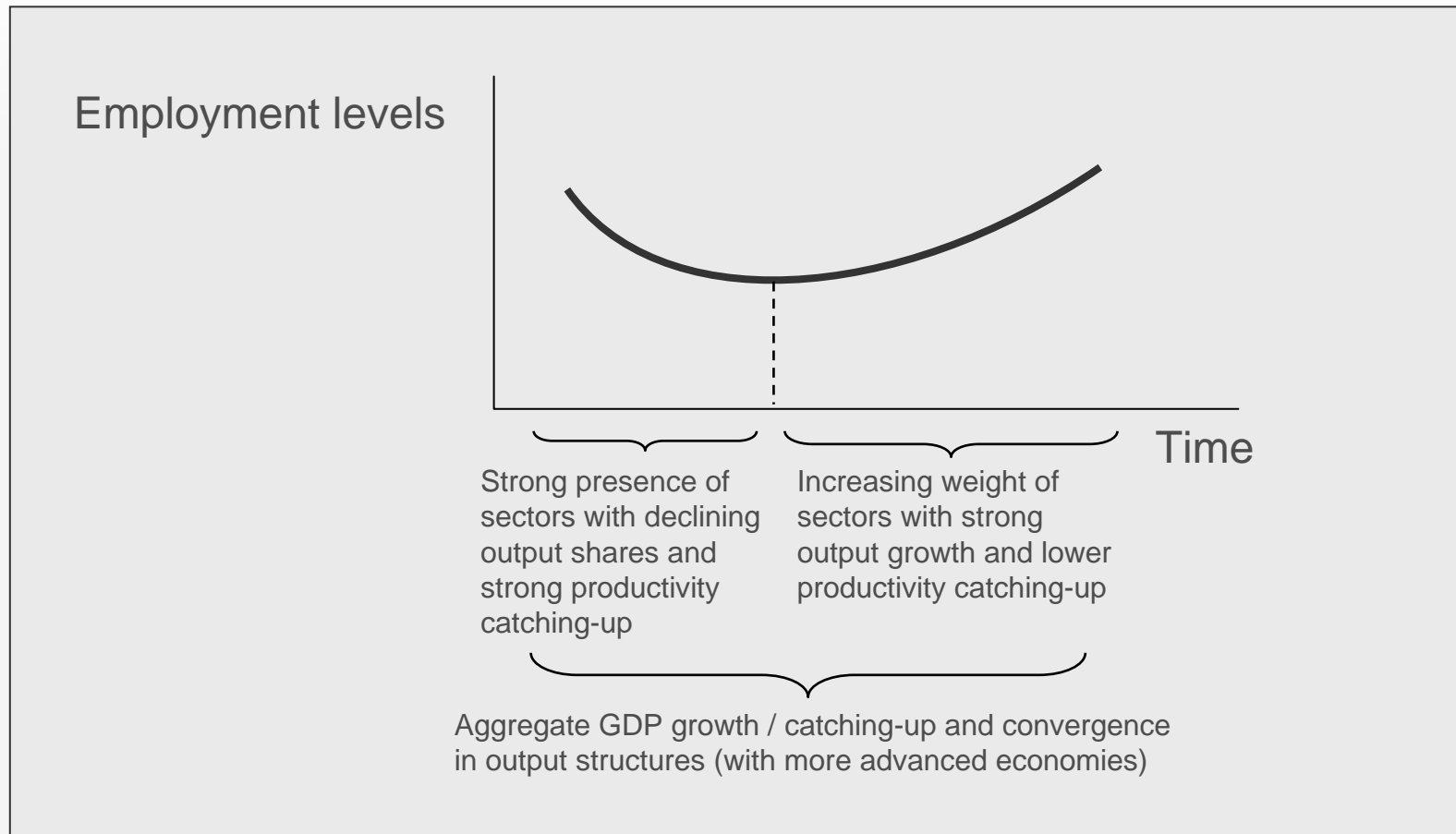
1 %-point higher GDP growth $\Rightarrow \sim 0.5$ %-point higher employment growth

Labour market developments in NMs – Explanatory framework based on structural dynamics

Types of structural dynamics:

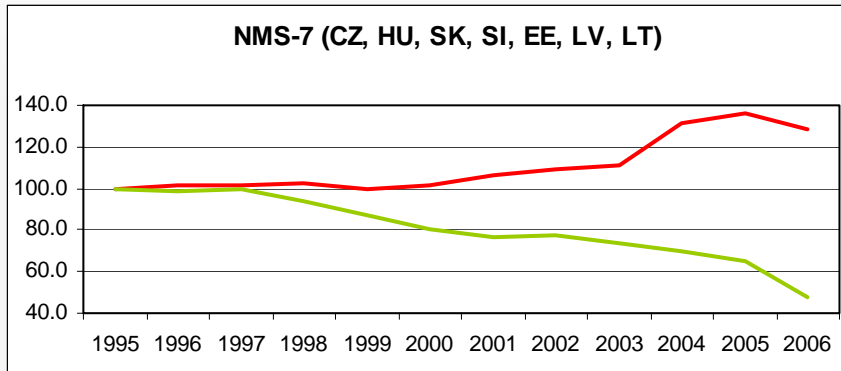
- (i) Output dynamics: relative growth/shrinkage of sectors which are under-/over-represented
- (ii) Productivity dynamics: differentiated by sectors depending upon the scope for productivity closure
- (iii) Sectoral and aggregate employment dynamics:
result from (i) and (ii)
- (iv) Further consequences on the demand and supply of skills

Stylized U-shaped pattern of employment growth in NMs

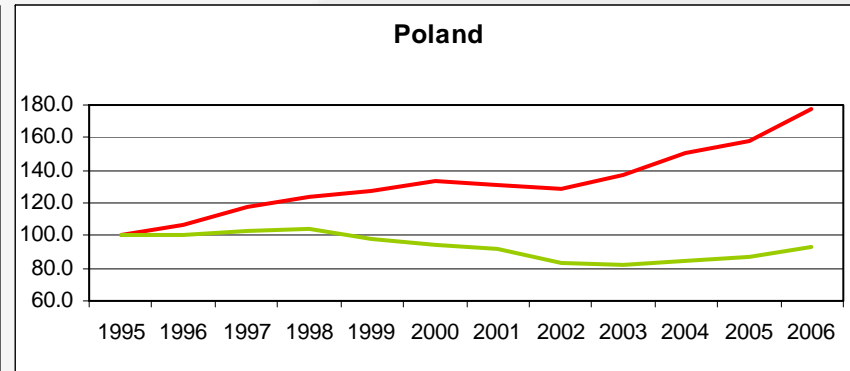
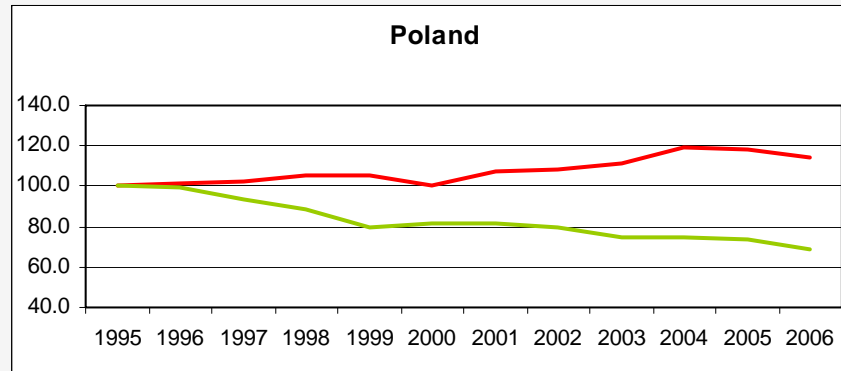
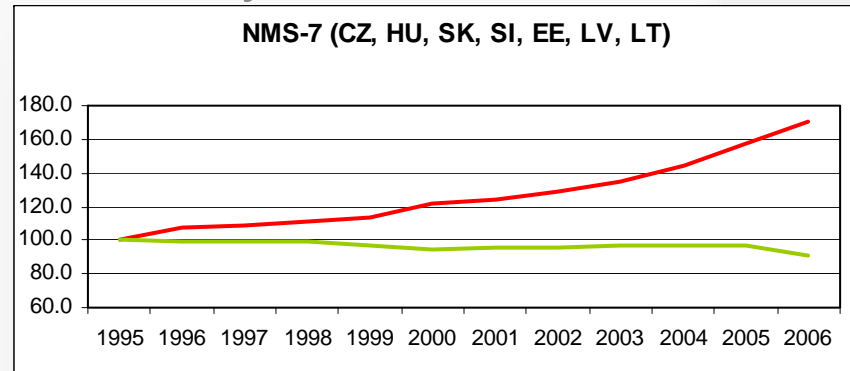


Output and Employment, 1995-2006

Agriculture



Industry

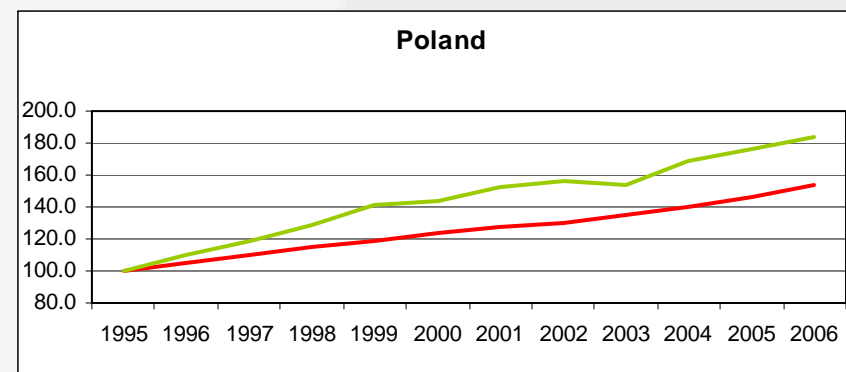
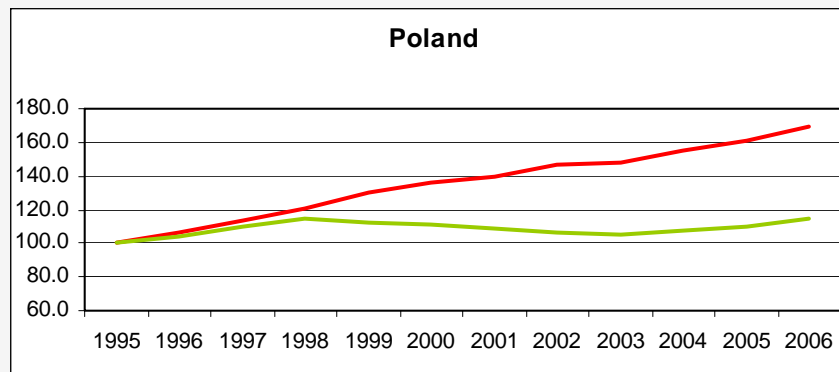
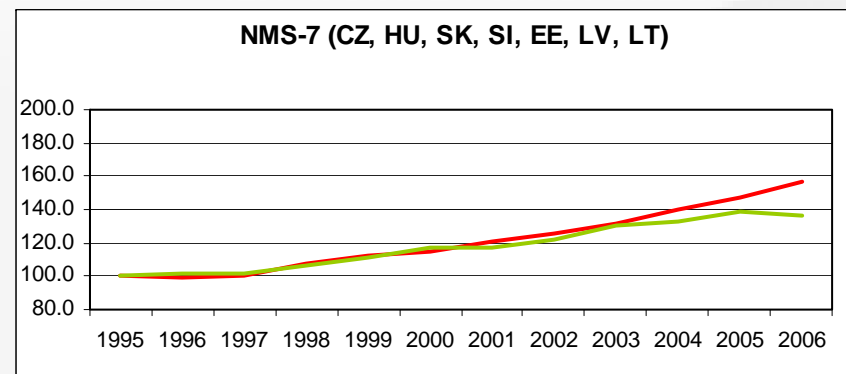
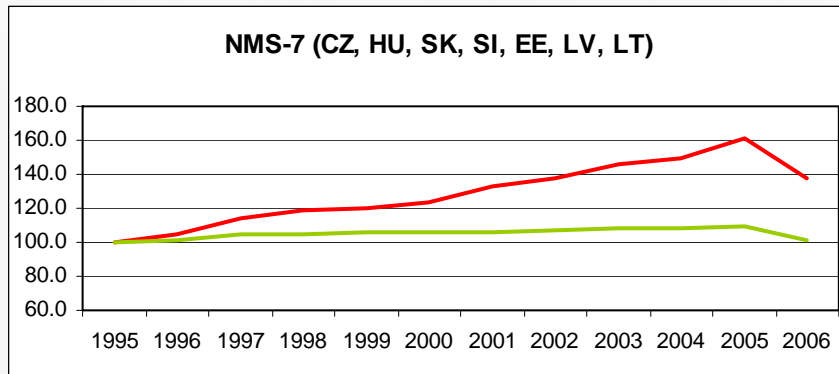


— Output — Employment

Output and Employment, 1995-2006

Basic Services (Trade, Restaurants, Hotels, etc.)

Financial and Business Services



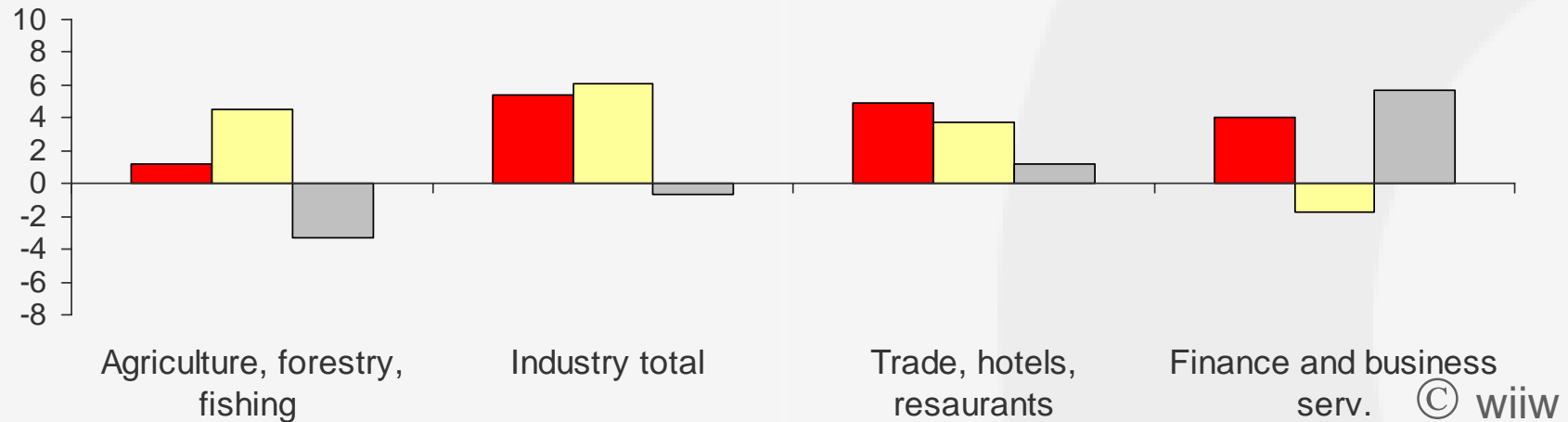
— Output — Employment

Growth by sectors, 1995-2006 in % p.a.

NMS-7



Poland

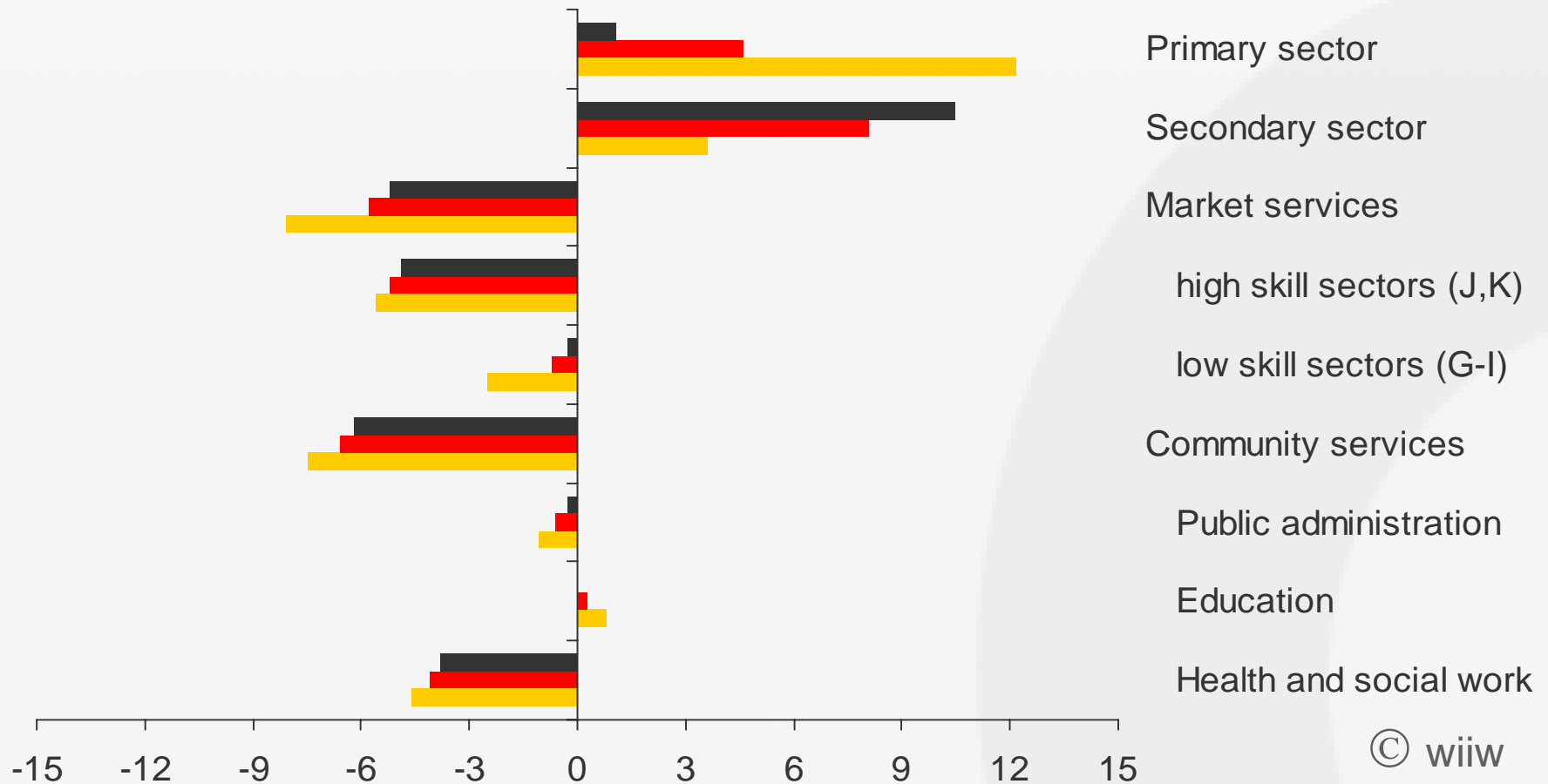


Divergence of employment shares from EU-15 structure, 2006

NMS-4

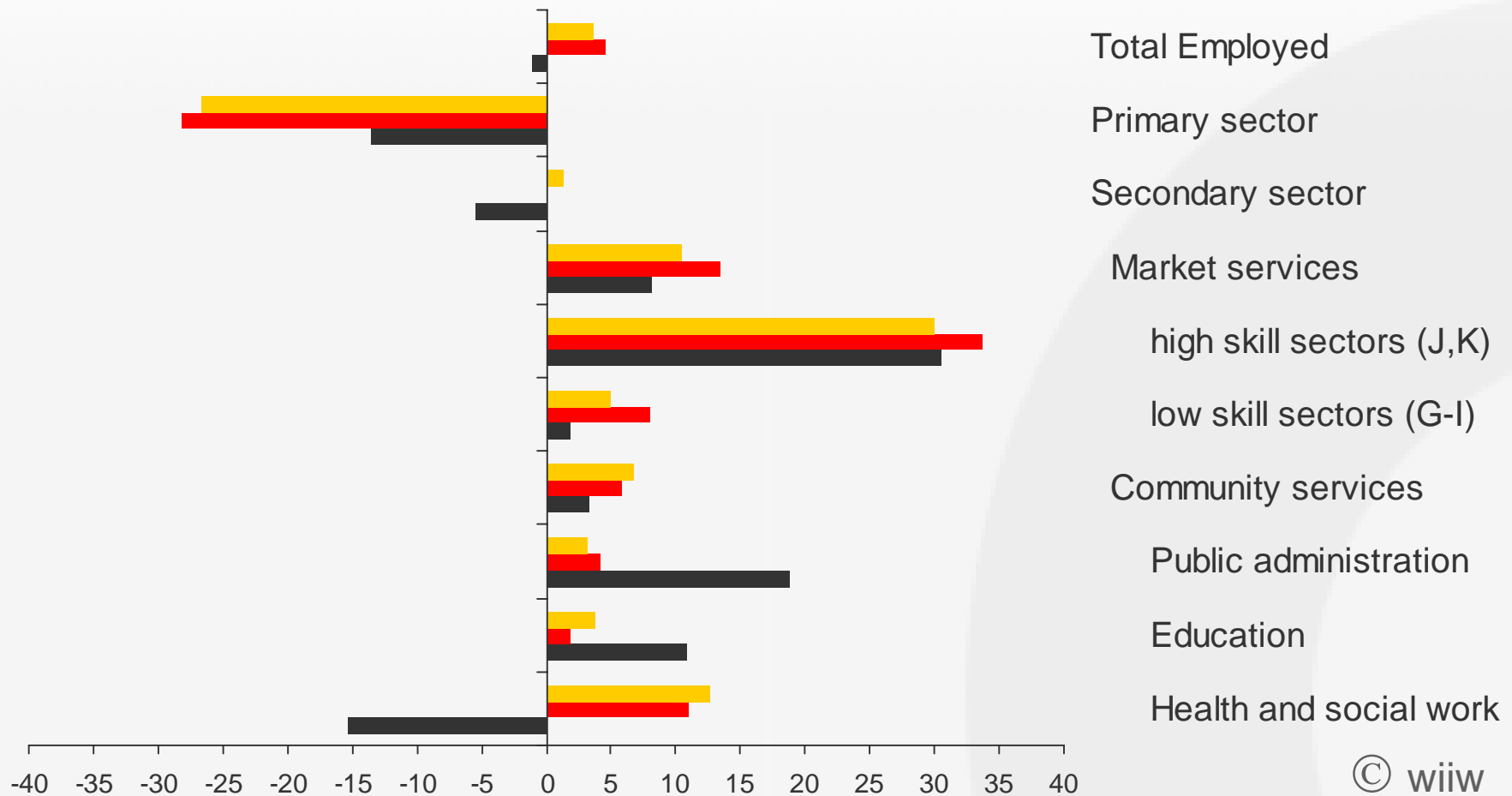
NMS-7

PL



Employment growth in sectors, 1999-2006

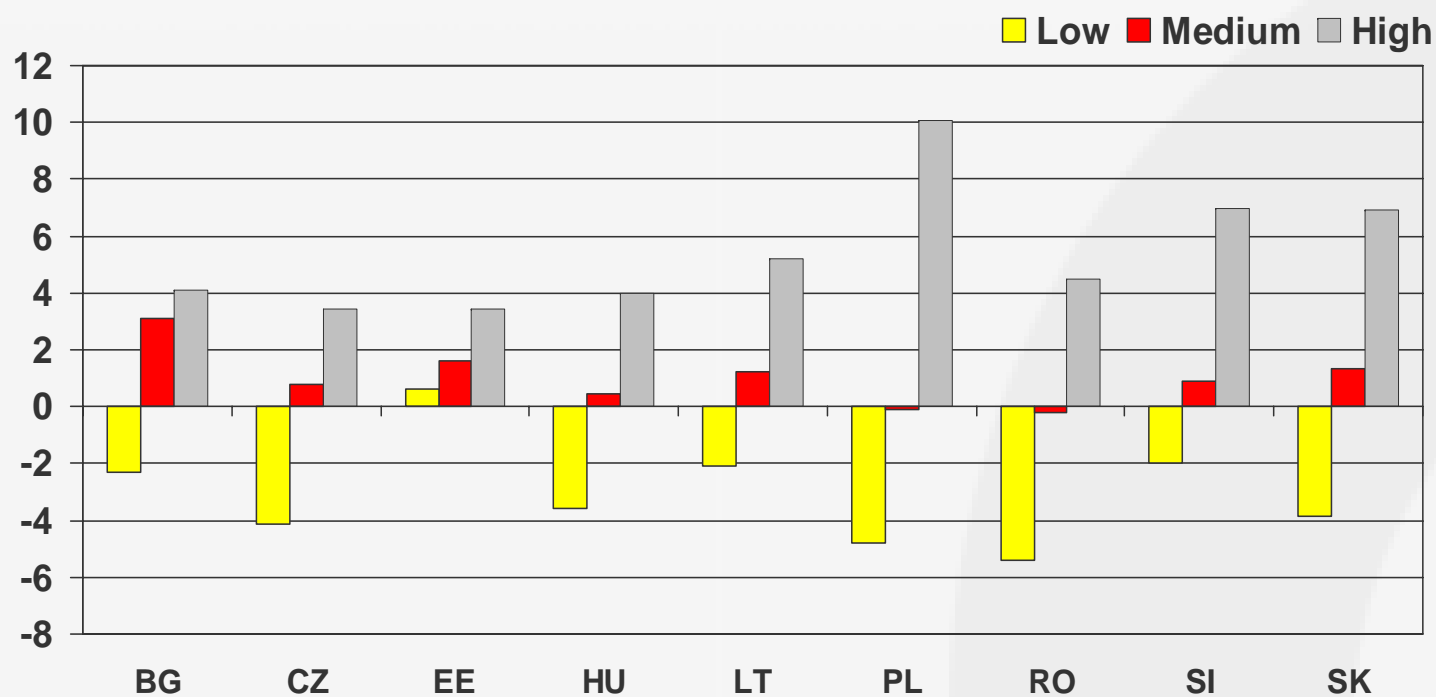
■ NMS-4 ■ NMS-7 ■ PL



Skill up-grading and the pressure on the low-skilled

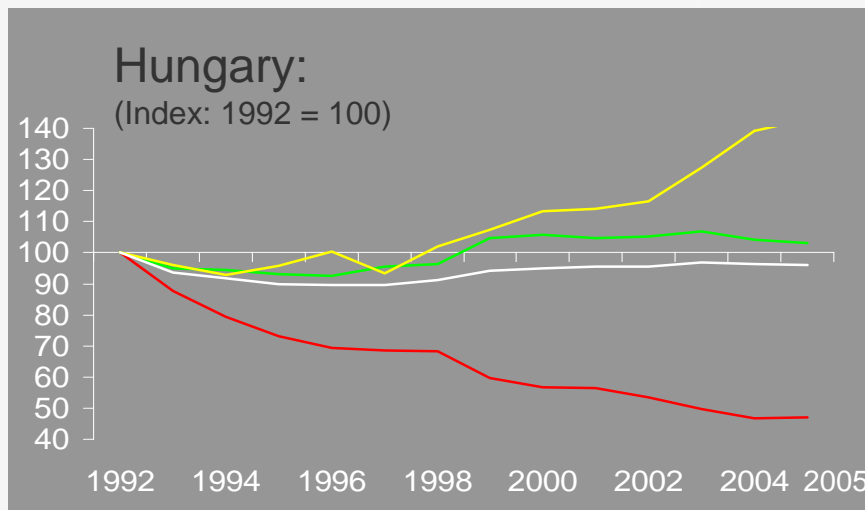
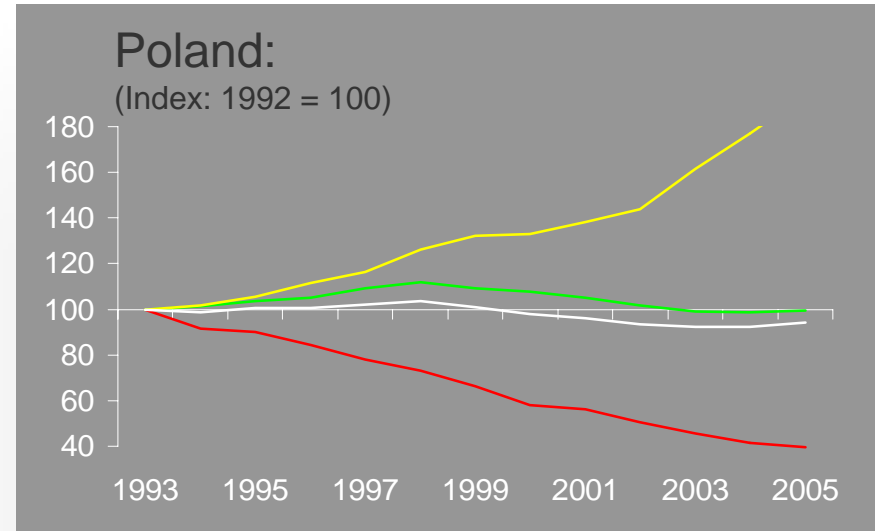
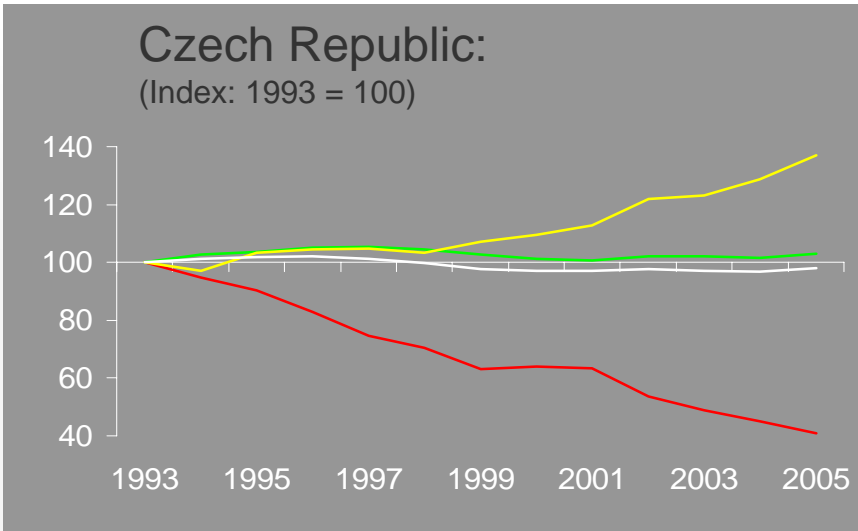
Employment change by educational attainment levels, 2000-2007

Average annual growth rates in %



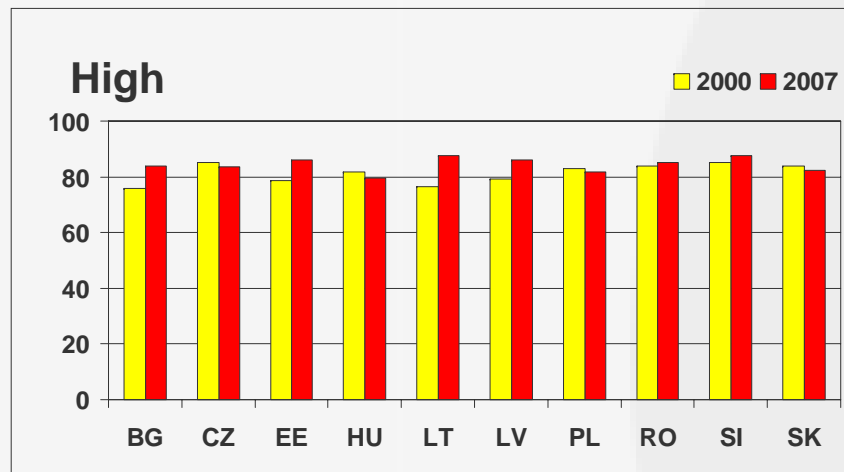
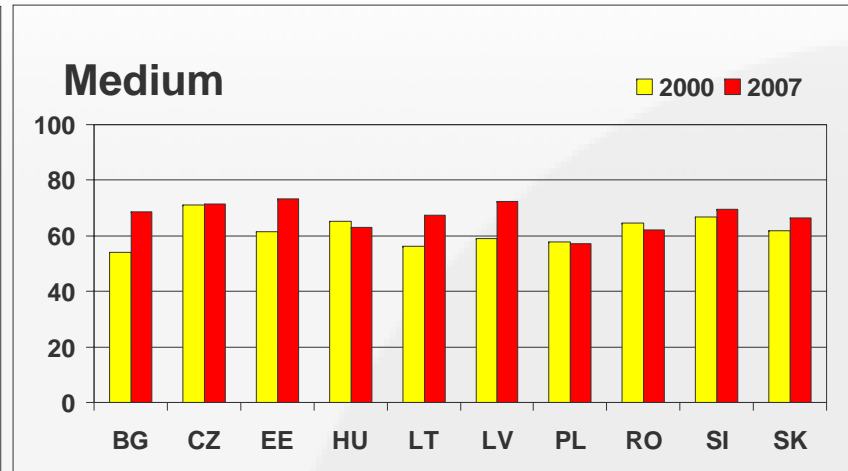
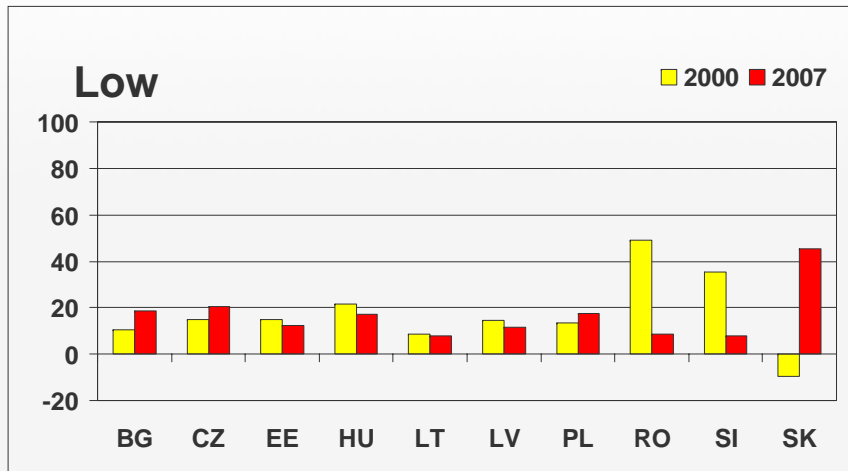
Employment by educational categories

1992-2005



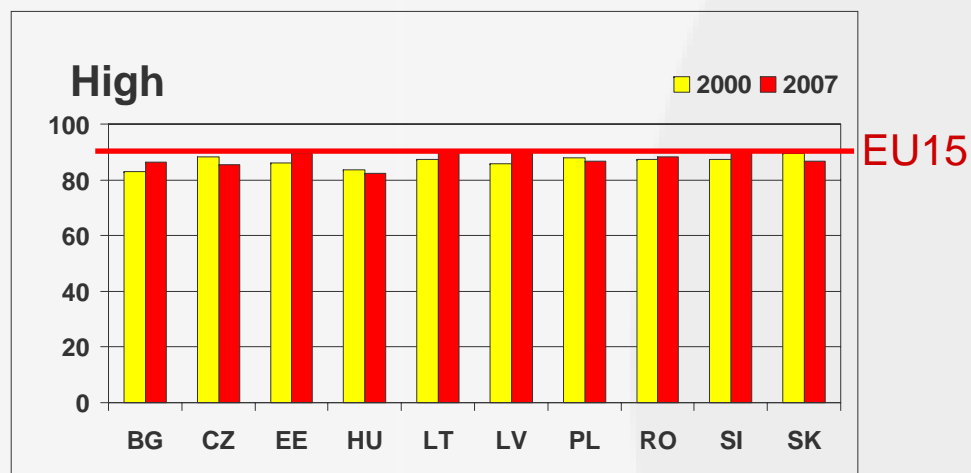
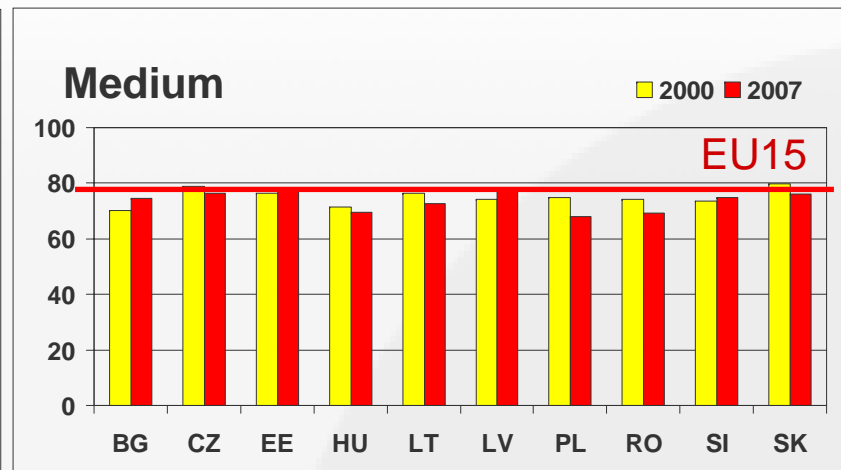
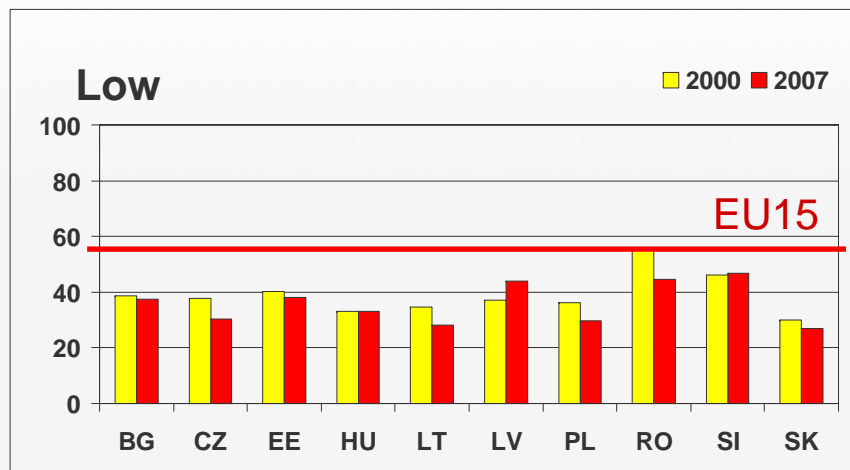
- Primary education
- Secondary education
- Tertiary education
- Total employment

Employment rates by educational attainment levels, in %



Source: LFS statistics

Activity rates by educational attainment levels, in %



Source: LFS statistics

Potential reasons

- Skill-biased technical change (ICT)
- Structural shift towards more skill-intensive sectors (e.g. high-tech sectors, business services) - sector bias of SBTC
- Supply-driven phenomenon

Skill up-grading: skill bias and sector bias

Skill shift

Decomposition into 'within' and 'between' effects:

$$\Delta s = \sum_i \Delta e_i \bar{s}_i + \sum_i \bar{e}_i \Delta s_i$$

where $e_i = \frac{E_i}{\sum_j E_j}$, $s_i = S_i / E_i$ and $s = S / E$

E stands for employment, S for skilled workers

overstrike denotes average over time; the index i denotes industries.

Grouping of industries into low-, medium- and high-skill industries; EU-27

Low-skill industries

- 19 Tanning and dressing of leather
- 18 Wearing apparel
- 17 Textiles
- 20 Wood and of products of wood and cork
- 37 Recycling
- 36 Furniture; manufacturing n.e.c.

Medium-skill industries

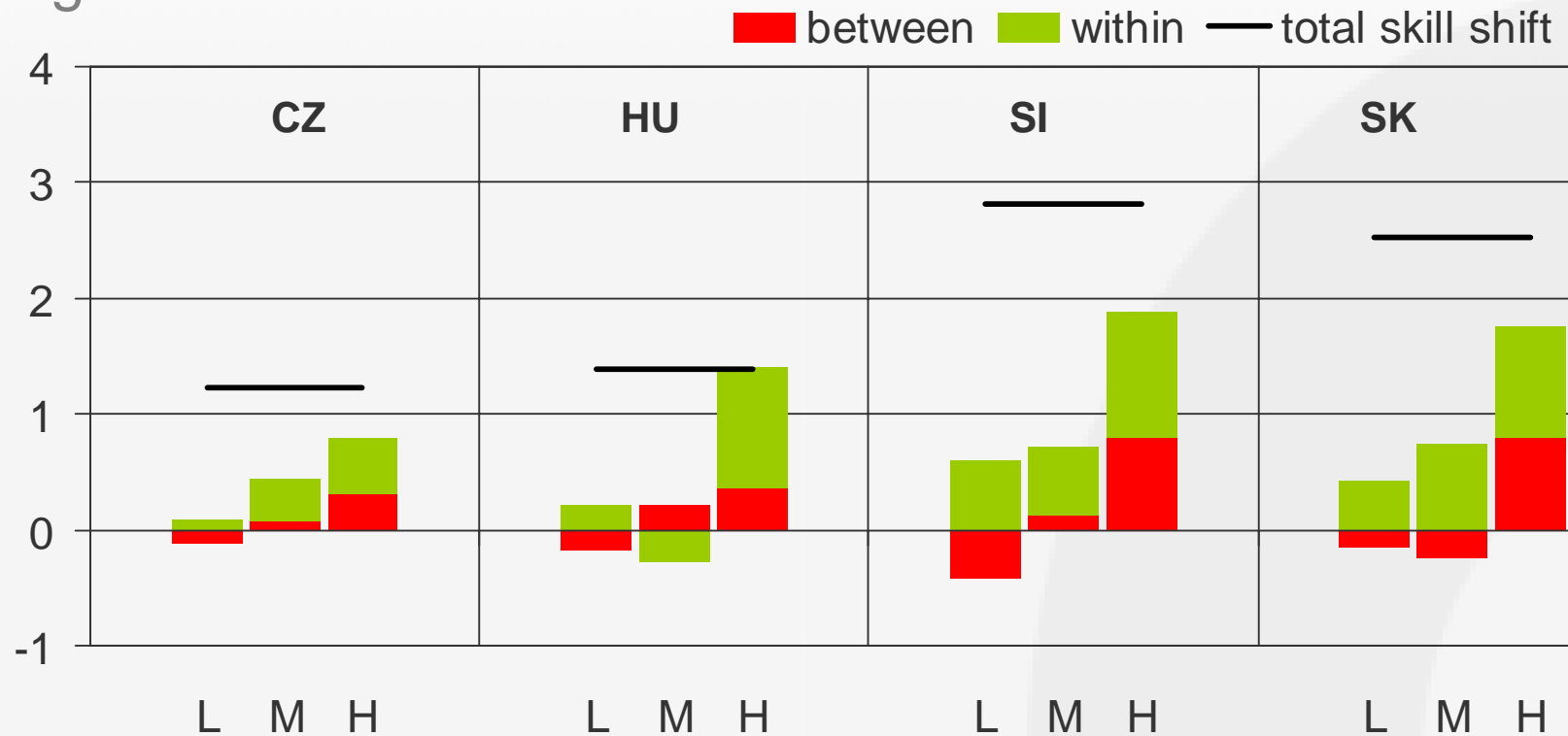
- 28 Metal products
- 26 Other non-metallic mineral products
- 15 Food products and beverages
- 25 Rubber and plastic products
- 21 Pulp, paper and paper products
- 27 Basic metals
- 16 Tobacco products

High-skill industries

- 34 Motor vehicles, trailers and semitrailers
- 29 Machinery and equipment n.e.c
- 31 Electrical machinery and apparatus n.e.c.
- 22 Publishing, printing and reproduction of recorded media
- 35 Other transport equipment
- 33 Medical, precision and optical instruments, watches and clocks
- 24 Chemicals and chemical products
- 32 Radio, television and communication equipment and apparatus
- 23 Coke, refined petroleum products and nuclear fuel
- 30 Office machinery and computers

Skill shifts – between and within components in low-, medium- and high-skill sectors, 1999-2005

High education

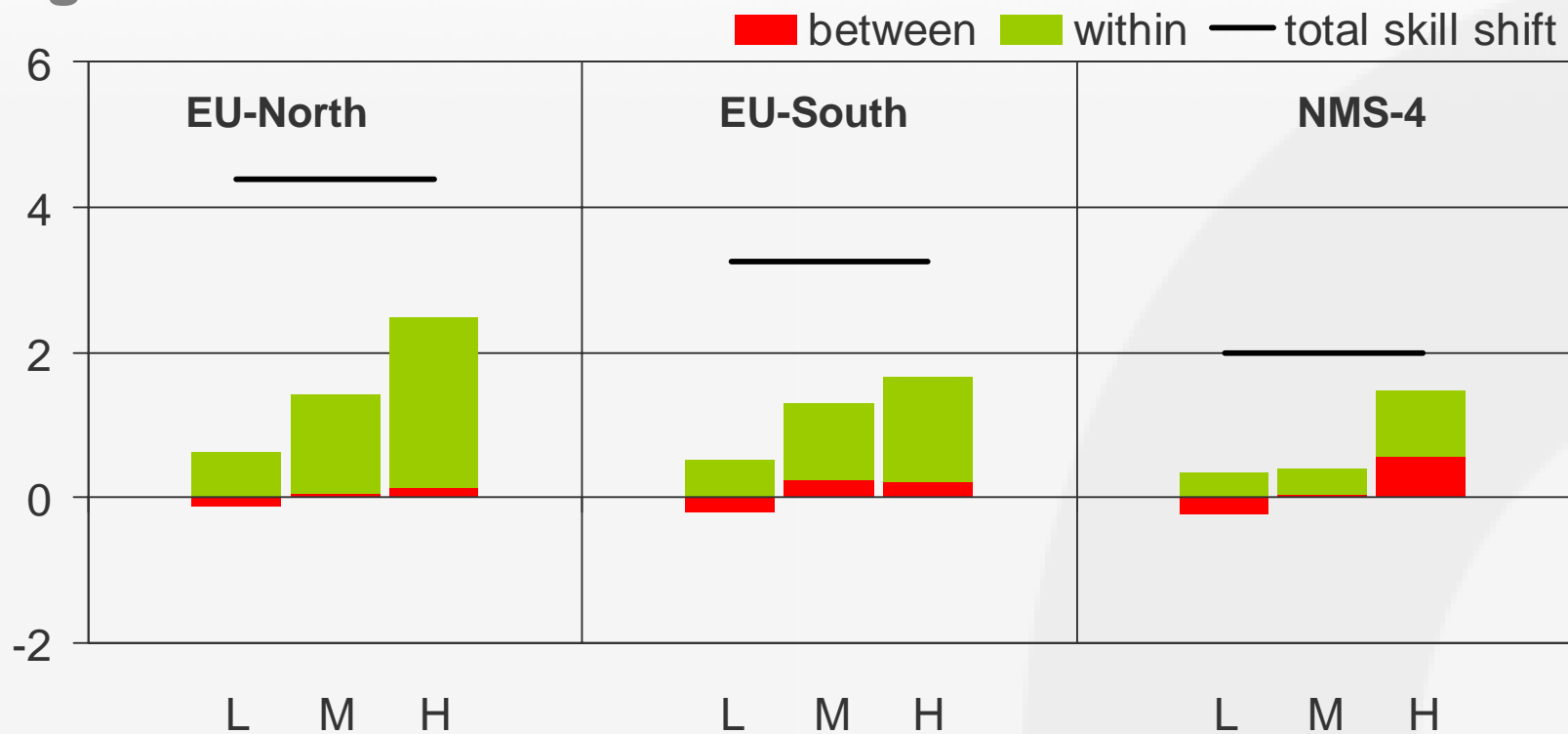


L=low-skill sectors, M=medium-skill sectors, H=high-skill sectors

Source: wiiw

Skill shifts – between and within components in low-, medium- and high-skill sectors, 1999-2005

High education

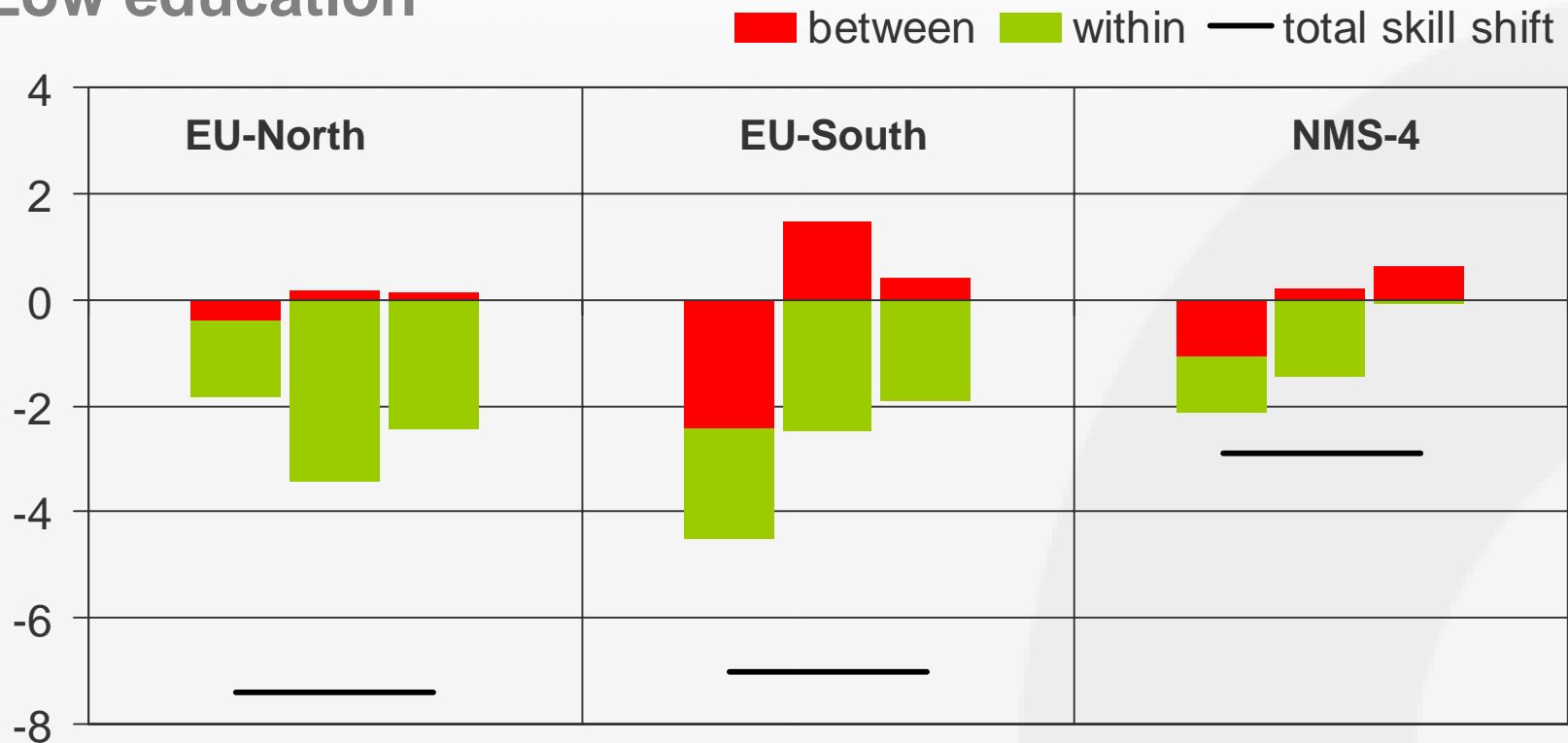


L=low-skill sectors, M=medium-skill sectors, H=high-skill sectors

Source: wiiw

Skill shifts – between and within components in low-, medium- and high-skill sectors, 1999-2005

Low education

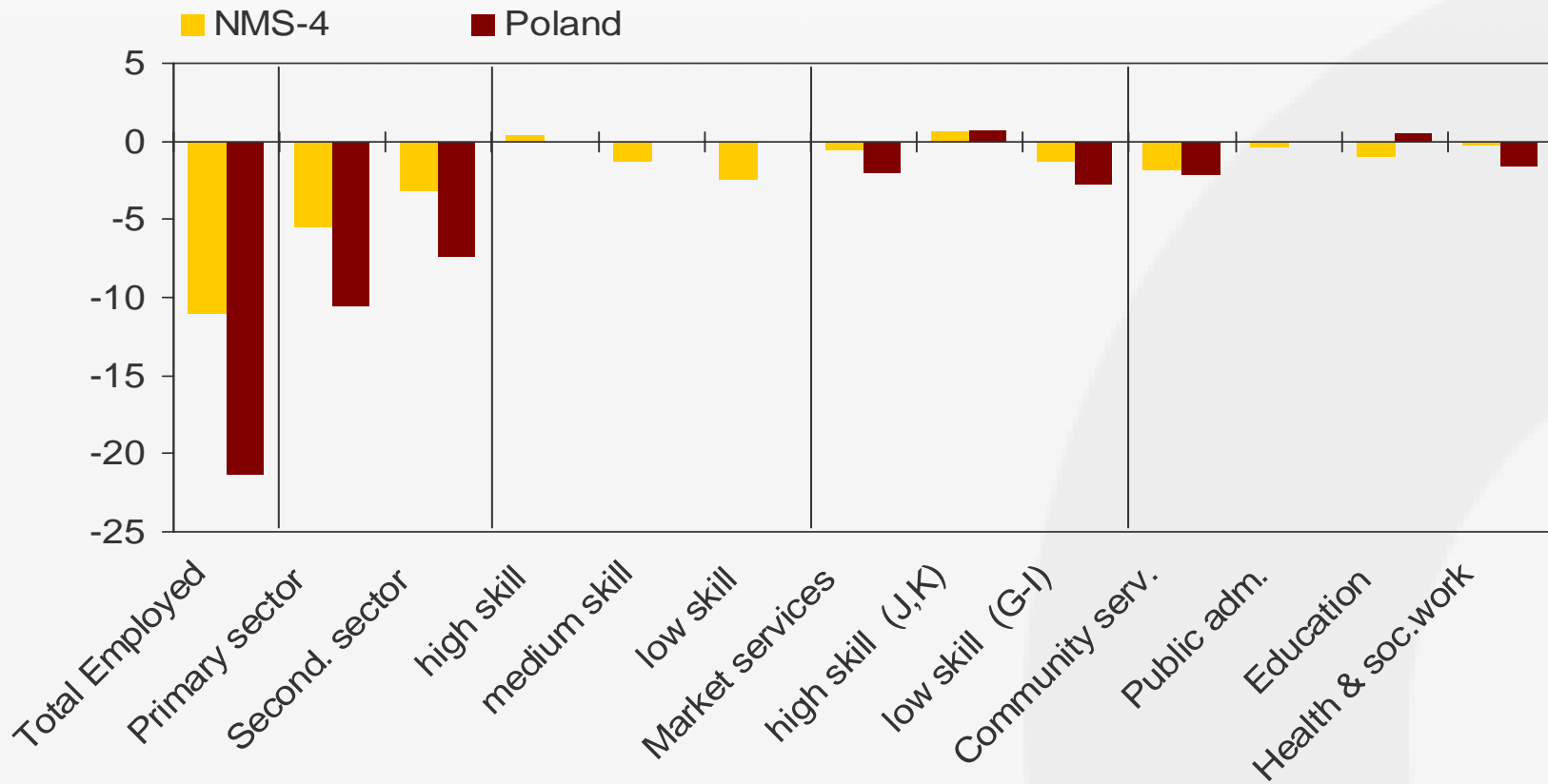


L=low-skill sectors, M=medium-skill sectors, H=high-skill sectors

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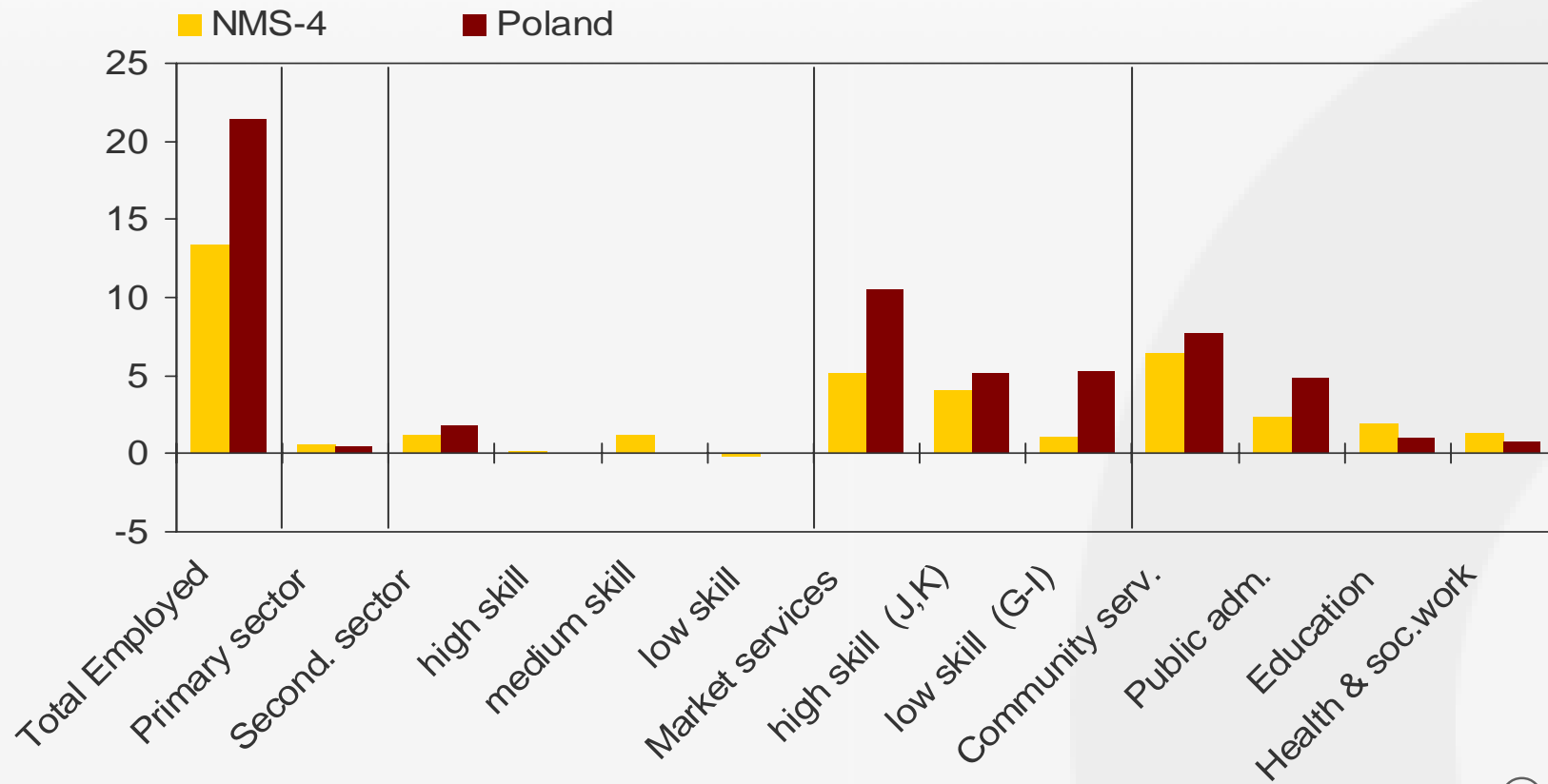
Source of Employment Decline

Low educated, 1999-2003



Source of Employment growth/decline

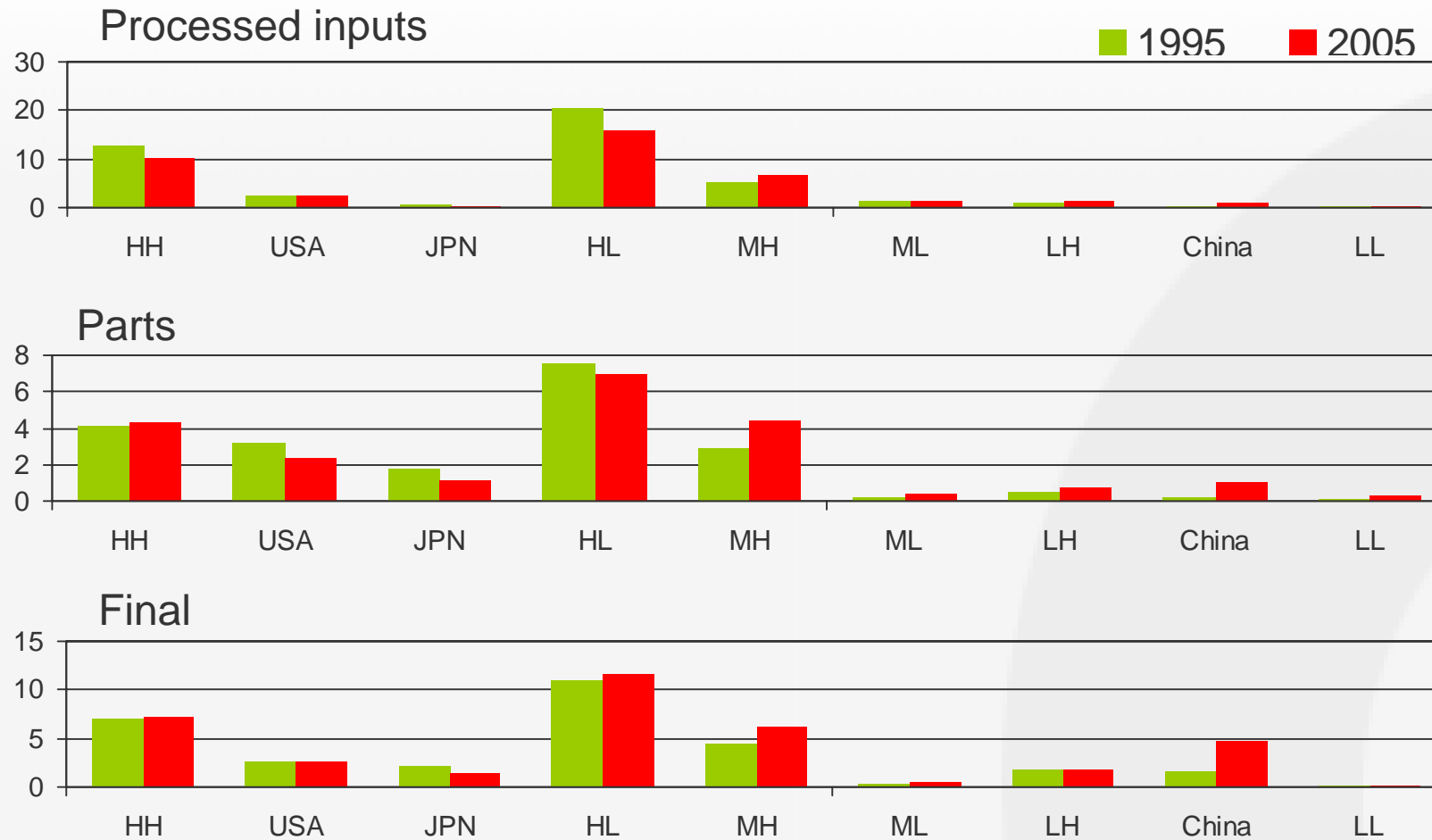
Highly educated, 1999-2003



Outsourcing and skill-demand

Outsourcing:

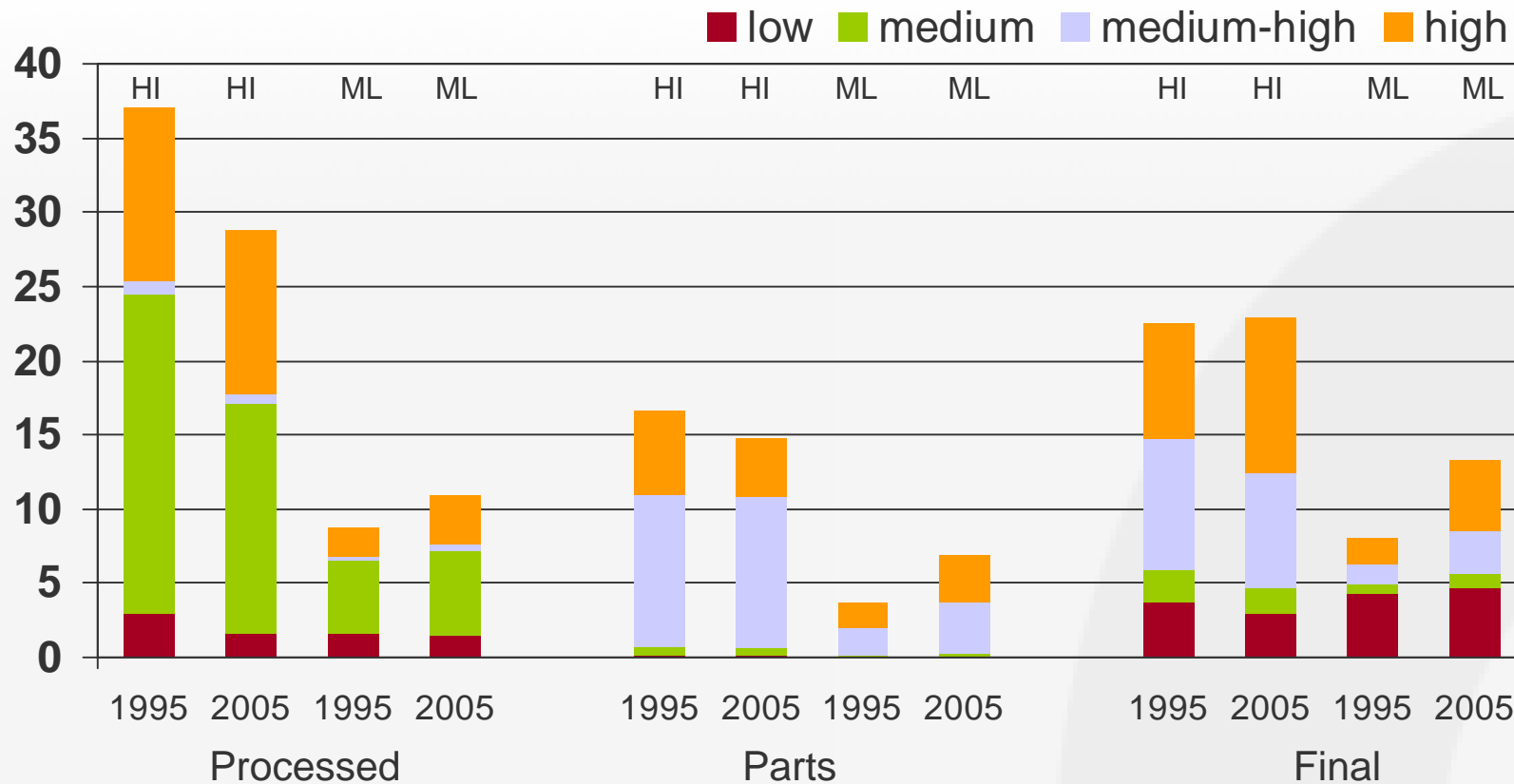
Imports of EU-North by source regions and by import categories (shares in % of total imports), 1995 and 2005



Source: Comext, wiiw.

Outsourcing:

Shares in EU-27 Imports by high- (HI) and medium-/low-(ML) income countries and by import categories, 1995 and 2005 (in % of total)



HI: high income countries, ML: medium/low income countries; low-, medium-,medium/high-, high-skill content

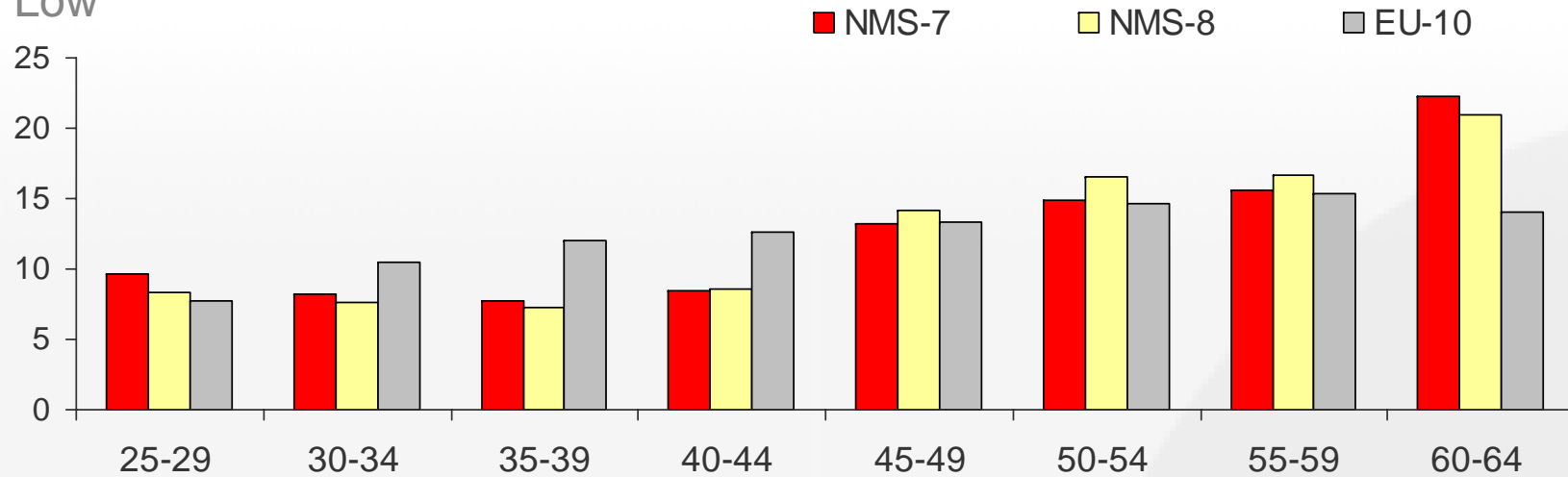
Source: Comext, wiiw.

Supply side issues: demography and migration

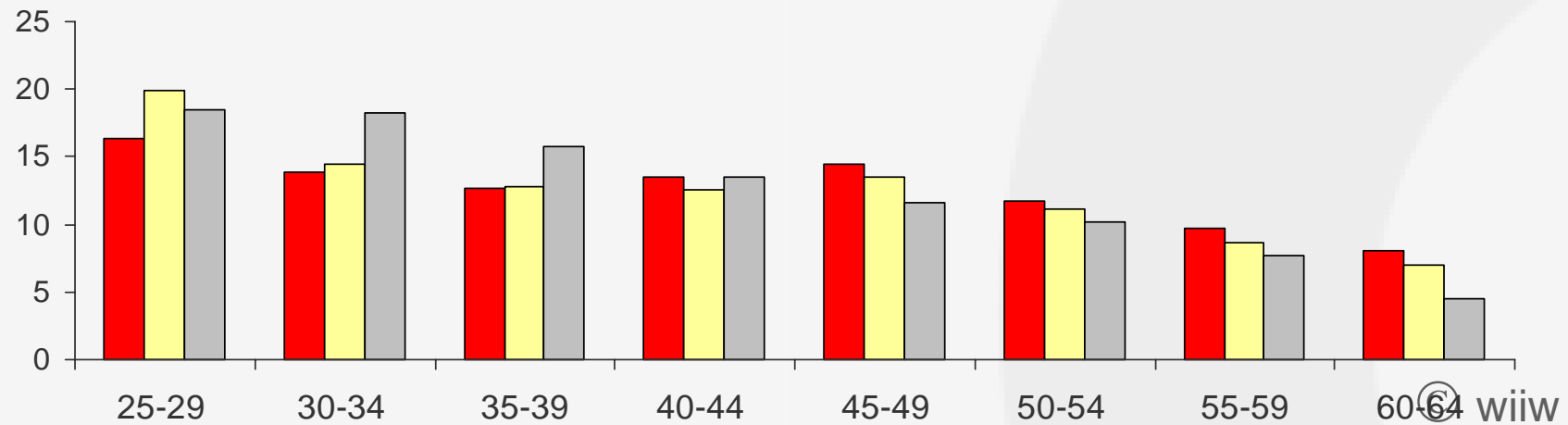
Share of population in education groups

in % of total population in education groups

Low

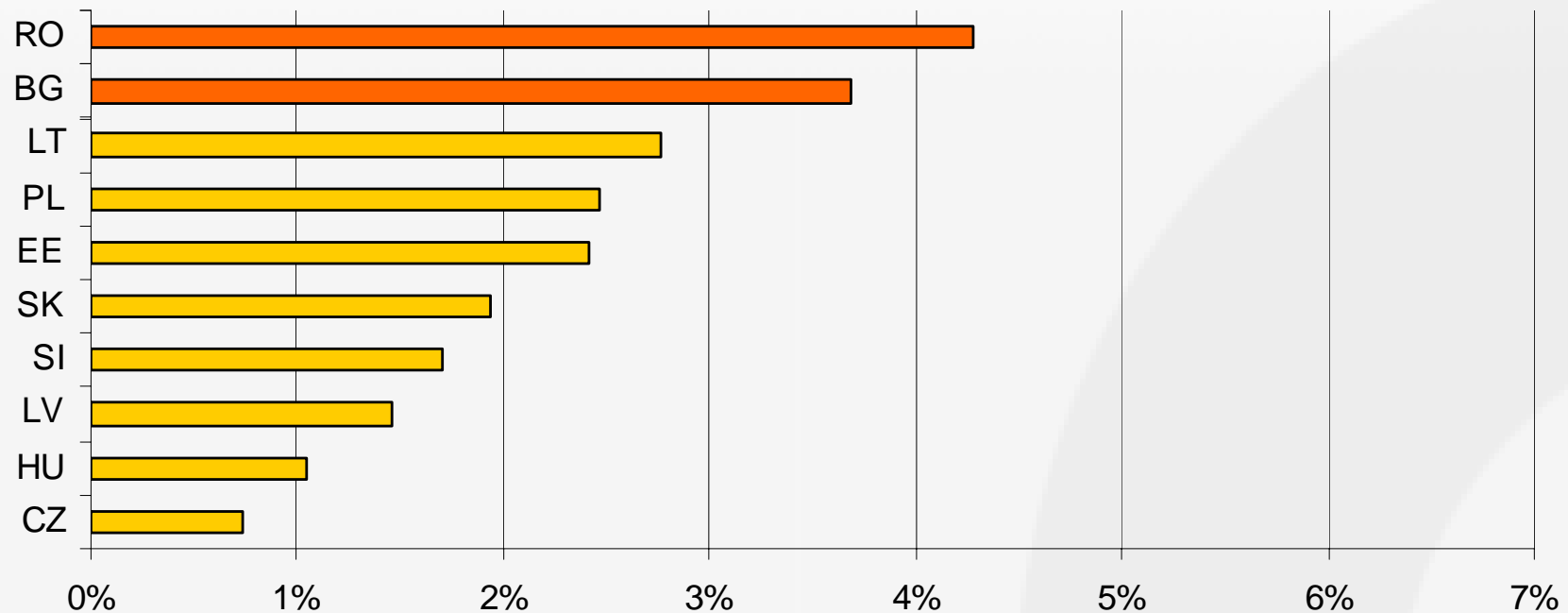


High



Source country effects of east-west EU-27 migration: declining labour supply?

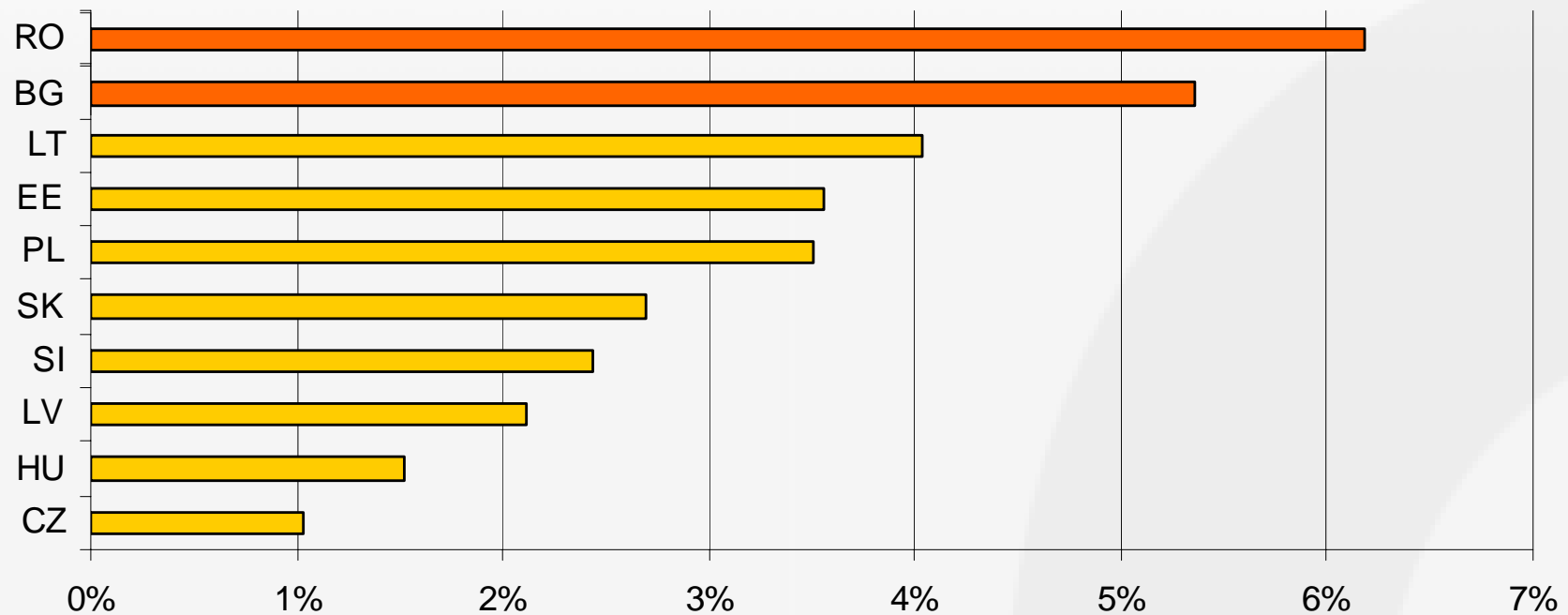
Share of EU-15 migrants in NMS populations, 2006



- Note
 - > migrants are concentrated in lower age cohorts
 - > short term migrants are not included above

Source country effects of east-west EU-27 migration: declining labour supply?

Share of EU-15 migrants in NMS working age populations, 2006



Demographic complementarity: Europe and MENA-20

- **Population size:** Western and Central Europe: 2003: 467 mio; 2025: 466 mio; MENA-20: 2000: 316 mio, 2025: 492 mio (+56%); 2050: 638 mio (+73%)
- **Labour force** (15-64 year old): Western and Central Europe: 2000: 312 mio; 2025: 295 mio (-5.5%); 2050: 251 mio (-20%); MENA-20: 2000: 187 mio; 2025: 323 mio (+73%); 2050: 417 mio (+123%)
- **Ageing** (people older than 65): Western and Central Europe: 2000: 73 mio; 2025: 104 mio (+42.5%); 2050: 125 mio (+71%)

Western and Central Europe: EU-25 plus EEA plus Switzerland; MENA-20: Middle East plus North Africa plus Gulf states

Labour market developments in a process of catching-up – summary points

- Low employment elasticity compared to EU-15
- Strong sectoral reallocation of employment
- Sectoral (output) convergence and differential productivity catching-up dynamics
- Overall pattern: U-shaped aggregate employment path
- Effects on skill demands:
 - Strongly negative employment trends of the least qualified
 - Sharp rise in the demand for highly skilled
- Supply adjustments in educational attainment – age cohort effects, migration

Summary: Growth challenges in the EU-27: the Central/Eastern EU Member States

- **The actual and potential contributions of NMS to EU-27 growth – challenges & opportunities**
- **Income and growth differentiation, at national and regional levels – convergence and divergence**
- **EU-27's new division of labour – trade patterns (goods, services, outsourcing)**
- **Employment developments - Skill-biased process of catching-up**