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Institutions and inequality in the EU

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# The Components of Wage Inequality and the Role of Labour Market Flexibility

*Analyses for the Enlarged Europe*

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# *Introduction*

- (i) One influential explanation of the causes of the current global crisis relates excessive downward wage flexibility (caused by dismissal of labour protection laws) to a growing recourse to credit and, *via* institutional deficiencies in the financial sectors, to macroeconomic vulnerability (Stiglitz, 2009; Krugman, 2010)
- (ii) Although this process was originated in the US, also Europe observed a widespread evolution towards more liberalistic labour market models and a remarkable broadening of income distributions in the last two decades
- (iii) In Central and Eastern EU countries, this evolution was part of the more general process of transition reforms, which implied:
  - massive (although at different level) increase in income inequality
  - widespread structural change and labour reallocation
  - huge labour market imbalances (unemployment, underemployment)
  - labour market flexibilisation (temporary, self-employment + informal sector)
- (iv) A cross-country comparative picture for Enlarged Europe, connecting wage disparities to the role of labour market flexibility, can shed light on the variety and similarities among countries and provide useful policy insights to govern labour market institutional evolution towards economically and socially sustainable models.

## *Aim of the paper:*

Quantify and discuss the role of labour market flexibility (in particular the dimensions identified with Temporary and Self-Employment) in shaping wage differentials and inequality in CEE Countries vis-a-vis Western EU benchmarks

*East – West comparative perspective at the outset of the gobal crisis (snapshot at 2007)*

## *Outline:*

- (i) Introduction
- (ii) Literature Review: Structural Components of Inequality and the Role of Labour Market Flexibility
- (iii) Methodology
- (iv) Data and First Descriptive Evidence
- (v) The Components of Earnings Inequality: Results
- (vi) Discussion and Final Remarks

(ii)

*Literature Review: Structural Components of Inequality and the Role of Labour Market Flexibility*

(a) Structural factors and inequality in transition

- industry reallocation and labour market imbalances
- opening of productivity and wage gaps between and within sectors
- SBTC effects
- new income sources
- macroeconomic factors

(b) Flexibility and Wage Inequality in CEE Countries

- evolution of labour market institutions
- expansion of temporary and self-employment
- relative strength of pull and push factors

*(iii) Methodology*

Blinder (1973) – Oaxaca (1973) decomposition of earning differentials between:

- Permanent – Temporary workers
- Permanent – Self-employed workers

$$D = E(Y_P) - E(Y_T)$$

$$E(\beta_P) = \beta_P$$
$$E(\varepsilon_P) = 0$$

$$D = E(Y_P) - E(Y_T) = R = E(X_P)' \beta_P - E(X_T)' \beta_T$$

$$E(X_P) \longrightarrow \bar{X}_P$$

$$E(X_T) \longrightarrow \bar{X}_T$$

$$Y_P = X_P' \beta_P + \varepsilon_P$$
$$Y_T = X_T' \beta_T + \varepsilon_T$$

$$\hat{\beta}_P \quad \hat{\beta}_T$$

$$\hat{D} = (\bar{X}_P - \bar{X}_T)' \hat{\beta}_T + \bar{X}_P' (\hat{\beta}_P - \hat{\beta}_T)$$

$\hat{C}$

Group differences in the workers' characteristics  
*(expected change in group T's mean wage, if group T had group P's characteristics)*

Group differences in the returns / coefficients – Discrimination.

*(expected change in group P's mean wage, if group P had group T's returns / coefficients)*

$\hat{R}$

### (iii) Data and First Descriptive Evidence

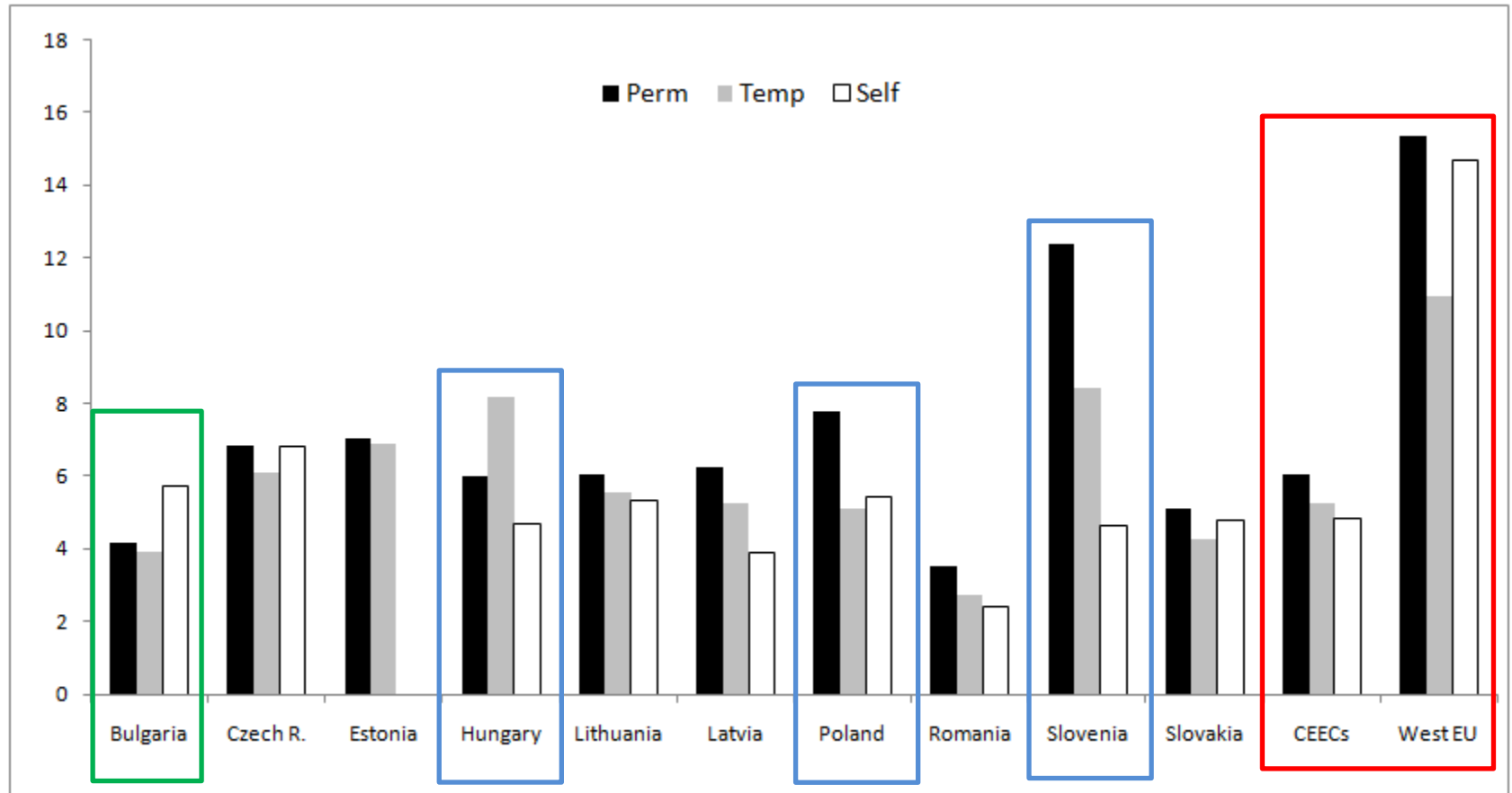
- **EU Silc** dataset, reference year: 2007
- **10 CEE countries** (Poland, Hungary, the Czech Republic, the Slovak Republic, Slovenia, Romania, Bulgaria, Estonia, Lithuania and Latvia)
- **12 EU West** member countries (EU15 minus France, UK and Denmark) as benchmarks
- **Sample**: persons at work with positive earnings (truncated 1<sup>st</sup> and 99<sup>th</sup> percentile) (70,562 CEECs; 83,456 West EU)
- **Earnings**: hourly gross earning in Euro PPP (*Annual earnings, n. of hours worked per week, n. of months worked per year*)
- Employees (permanent / temporary): (*Employee cash or near cash income - PY010G*)
- Self-employed: (*Cash Benefits and Losses from Self-Employment-PY050G + Value of goods produced for own consumption-PY070G*)

#### *Explanatory variables for the Mincerian equations:*

- Gender
- Age
- Experience
- Education (*Primary, Secondary, Tertiary*)
- Occupation (*Managers, Professionals, Clerks, Skilled Agric. & Craft work., Machine Operators, Elementary Occ.*)
- 2<sup>nd</sup> Job
- Sector (*Agriculture, Industry, Construction, Hotel & Rest., Trade, RE & Finance, Transports, Pers. Serv. & PA*)
- Firm Size

### (iii) Data and First Descriptive Evidence

hourly earnings by employment status



(i) Permanent / Temporary wage gap is relatively smaller in CEECs

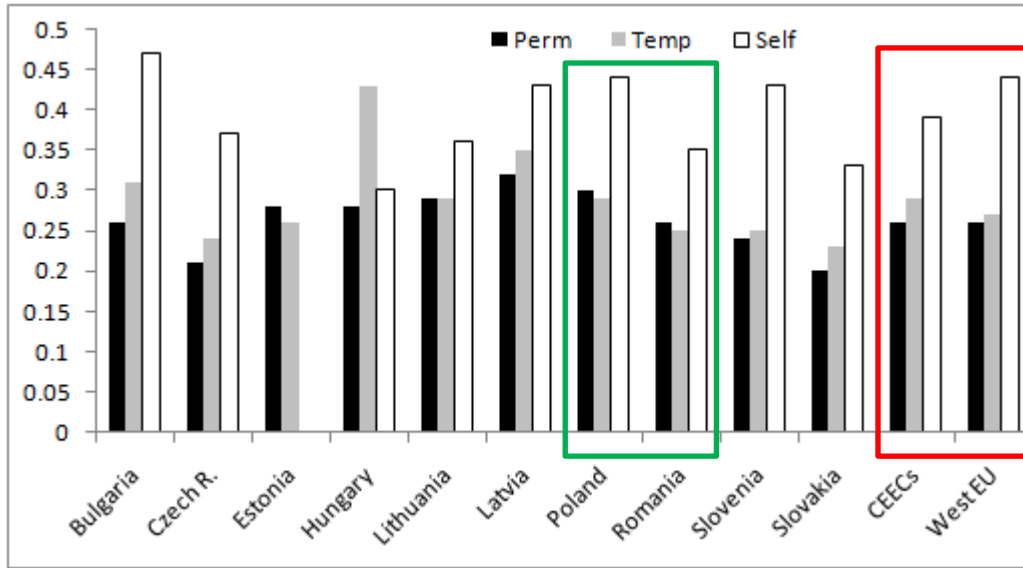
(ii) Notable Exceptions: Hungary vs Poland and Slovenia

(i) Permanent / Self-employment gap is positive in CEECs (one exception, Bulgaria)

(ii) For various CEECs: Temp > Self

# Earnings inequality by employment status

## Gini



(i) Inequality is generally higher for Self and Temp

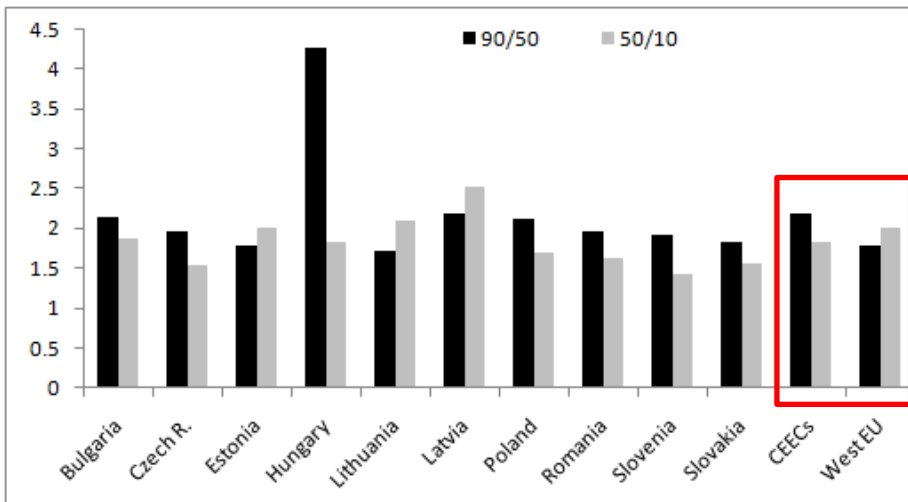
(ii) Exceptions: Poland and Romania ( $P > T$ )

But:

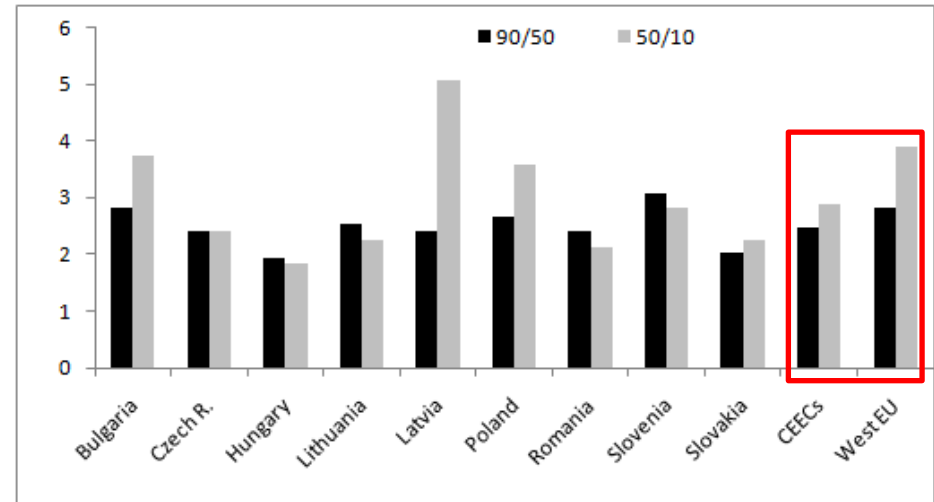
(i) Temp: right tail ineq for CEECs (except Baltic, and contrary to West)

(ii) Self: varied 50% right tail, 50% left tail ineq

## Temporary



## Self





## *Summary of descriptive evidence and preliminary interpretations:*

- (i) Permanent / Temporary wage gap is relatively smaller in CEECs (compared to West)
  - (ii) Permanent / Self-employment gap is positive in CEECs (as in West)
  - (iii) But Temp > Self in 4 CEECs (not in West)
- 
- (i) Ineq for Temp depends more on existence of high earnings (contrary to West)
  - (ii) Ineq for Self in 50% of CEECs depends on high earnings

### Preliminary interpretations:

- (i) Temporary jobs are relatively less “negative” in CEECs than in West

#### Corroborative evidence:

Temp are more educated in CEECs (85% in secondary and tertiary educ.) than in West (69%); more experienced (13.5 years vs 11.8); and more in Industry (31%); 39% of temporary in West are in Personal services and PA

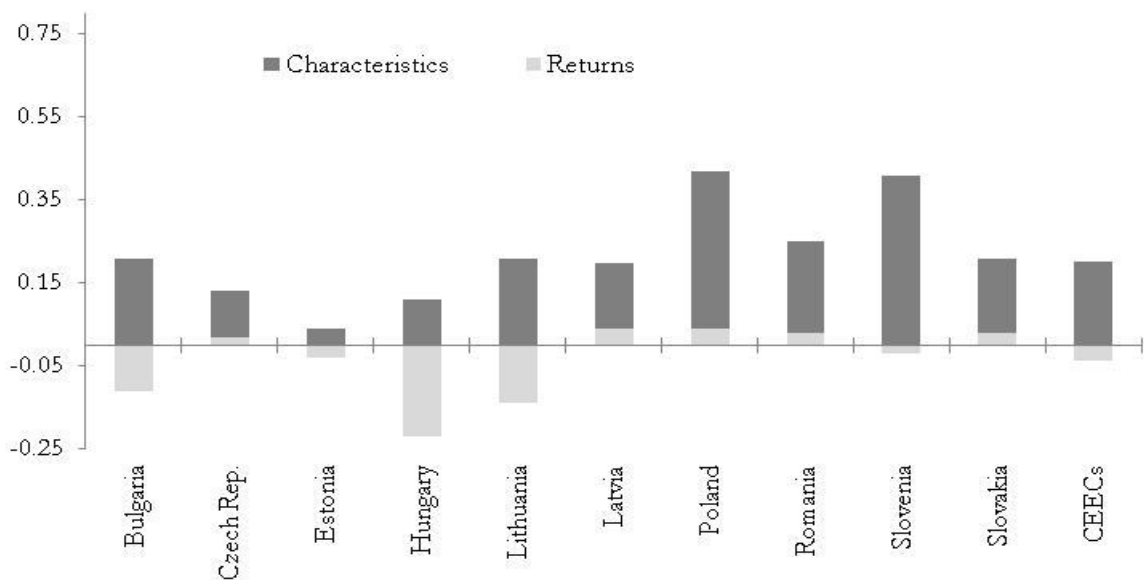
- (ii) Self-employment is more varied:

- for some countries (Bulgaria, Latvia, Poland, Slovakia) prevalence of push forces (earn less, distorted towards left tail): massive presence in Agric. and Trade

- for other countries (Hungary, the Czech R., Slovenia), prevalence of pull factors (distribution distorted towards right tail): higher presence in Industry, RE & Finance, more “Professionals and Technicians”

# (iv) The Components of Earnings Inequality: Results

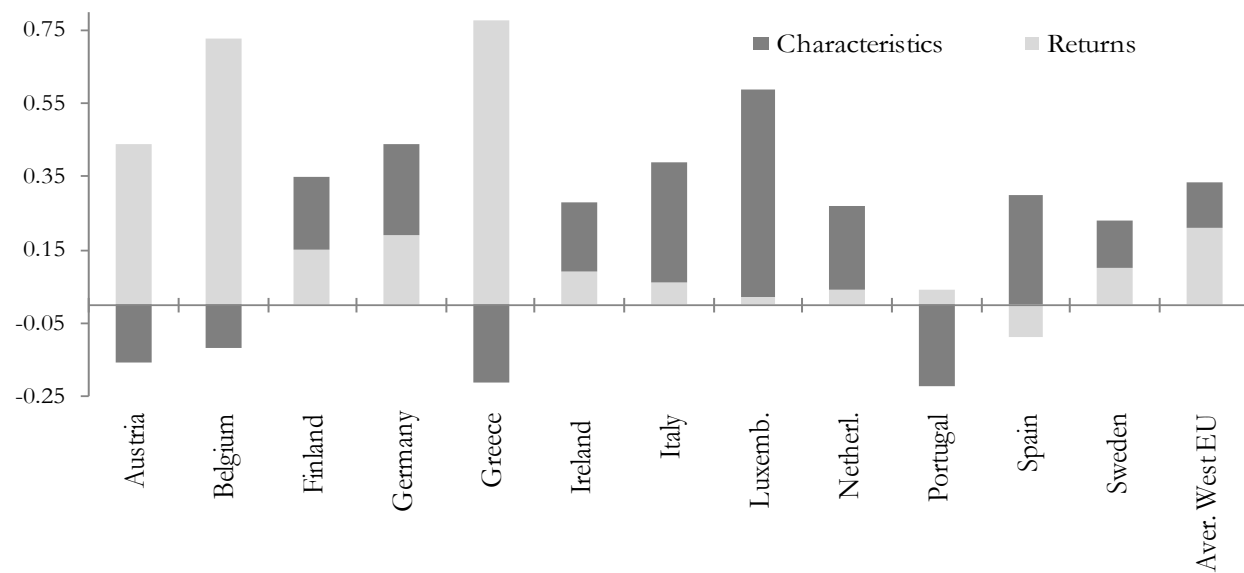
## *Decomposition of the hourly earnings gaps (Permanent versus Temporary)*



(i) Differences in characteristics largely explain P/T wage gap in CEECs

(ii) Differences in returns (discrimination, attributes being equal) are non-influential or negative

(iii) Discrimination is much more important in West EU countries (exceptions: Italy, the Netherlands, Portugal, Spain)



Focus on CEECs:  
which characteristics do matter?

## *Decomposition of the hourly earnings gaps (**Permanent versus Temporary**)*

Mincerian estimates for CEECs indicate that Temporary wages positively depend on:

- Gender
- Tertiary education
- Firm Size
- Managerial or Professional Occupations

O-B *detailed* decomposition for CEECs indicate that P/T wage gap mainly depends on these specific characteristics:

- Tertiary education
- Experience

*This means that Temp workers in CEECs **on average** earn less than Perm because they are less (highly) educated (16% vs 33%) and less experienced (13 years vs 18).*

*Surprisingly, their higher employment in certain sectors (e.g., constructions) does not play any (+ or -) role*

*However, as revealed by the Mincerian, the Temp with more productive characteristics (especially education and experience), earn as much as permanent workers (no, or weak, discrimination due to job position (P / T))*

This is remarkably different to what happens in (most of) West EU, where attributes being equal, discrimination due to being temporary plays a significant role (especially in AT, BE, DE, FI, GR, IR, SE)

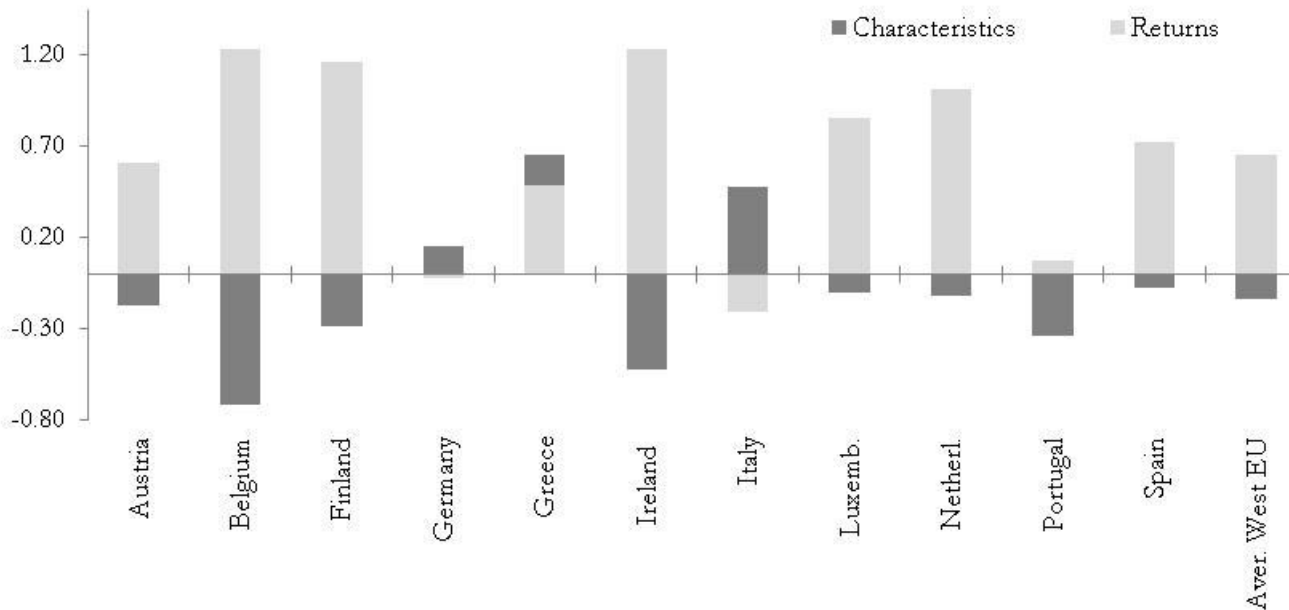
*Temp workers in West are more (highly) educated (29% vs 25%) than Perm!!!!*

## Decomposition of the hourly earnings gaps (*Permanent versus Self-employment*)



- (i) *The dichotomy:*
- *CEECs – Characteristics*
  - *WEST – Discrimination*

*in explaining P / S average earnings gap is even more apparent than in the P / T comparison.*



## *Decomposition of the hourly earnings gaps (**Permanent versus Self-employment**)*

Mincerian estimates for CEECs indicate that Self-employment earnings positively depend on:

- Gender
- Tertiary education (especially for Poland)
- Firm Size
- RE & Finance
- Managerial or Professional Occupations
- and 2<sup>nd</sup> Job (*negatively*)

O-B *detailed* decomposition for CEECs indicate that P/S earnings gap mainly depends on these specific characteristics:

- Tertiary education
- Employment in agriculture & trade
- Gender

*This means that Self-employed in CEECs **on average** earn less than Perm because they are less (highly) educated (14% vs 33%) and more employed in Agriculture (39% vs 2%) & Trade (18% vs 15%).*

*However, as revealed by the Mincerian, the Self-employed more educated, in larger firms, RE & Finance, Managerial or Professional position, earn as much as (or more than) permanent workers (again no, or weak, discrimination due to job position (P / S))*

This again remarkably differs from (most of) West EU, where attributes being equal, discrimination due to being self-employed plays a significant role

## *Interpretation: a East-West duality of dual labour markets?*

### EAST:

Earnings gap between secure and low-wage “unsecure” labour position due to:

- Different productive attributes of workers
- Structural (sectoral) factors



Context:

Still ongoing structural adjustment and reallocation processes (towards higher-skill intensity sectors or segments);

Still ongoing adjustment of the labour force towards higher (tertiary) education levels



*As structural and economic convergence proceeds, can convergence towards the Western duality be avoided?*

### WEST:

Earnings gap between secure and low-wage “unsecure” labour position due to *discrimination* in job position (productive attributes of workers and industry allocation of workers being equal)



Context (for various countries, not all):

Slower sectoral adjustment processes

Excess of highly educated labour supply (often due to slow transition towards high-skill demand sectors - Medit countries) or qualitative mismatch of educated workers (e.g., Italy)

Efficiency + Equity problem



*Buffer stock effect, job insecurity trap*

***A role for labour market institutions?***

#### (iv) Discussion and Final Remarks

In various Western countries, where a low-wage trap associated to labour market flexibility clearly exists, beyond structural factors, also institutional features and deficiencies are often named as suspects (Lucifora, 2000; Salvereda & Mayhew, 2009):

- Insufficient coordination between education systems;
- Excessive rigidity of education systems;
- Lacking coordination between education systems and labour demand;
- Inefficiencies or insufficiencies of active labour market policies (especially job matching, training);
- Remarkable asymmetry between employment protection legislation and wage-setting mechanisms between permanent and temporary workers (related to the role and representativeness of Unions and to the mechanisms, coverage and inclusiveness of collective bargaining);
- Weak inclusiveness and coverage of minimum wages;
- Remarkable asymmetry in labour cost for fixed-terms vs permanent positions;
- Insufficient welfare measures for temporary unemployment spells.

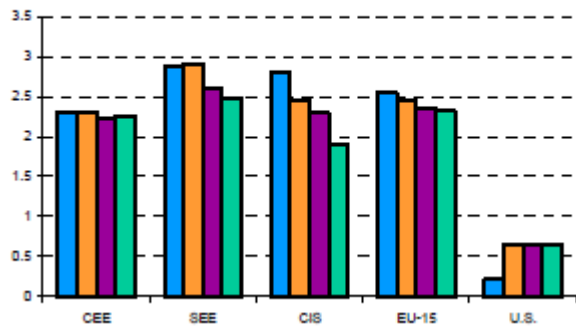
Careful consideration should be given by CEECs policy makers to the variety of experiences and the consequences of institutional implementation of the West, in accompanying the completion of structural evolutions, in order to reduce the probability of creating marginalized unsecure labour pools and the consequent efficiency & equity deficits.



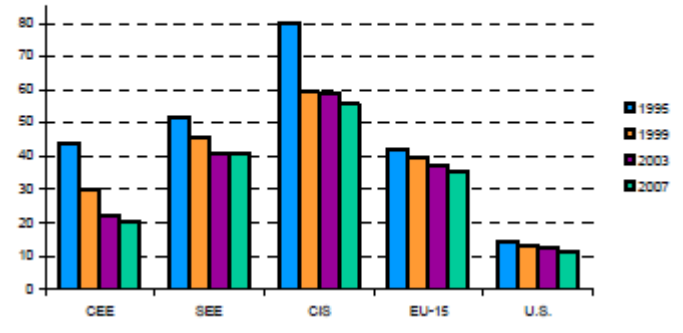


# Labour market institutions across Europe, CIS and US

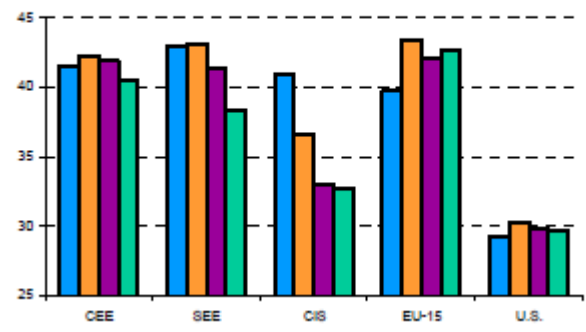
Employment protection legislation (OECD methodology)



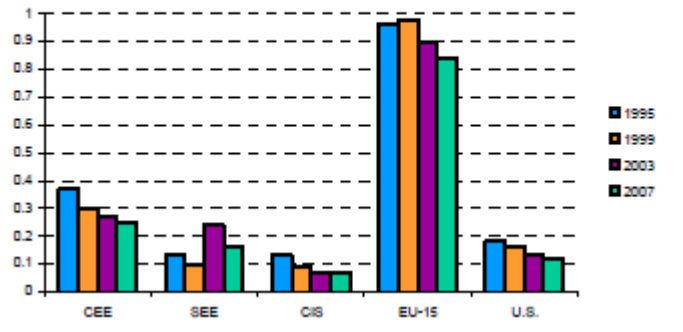
Union density, %



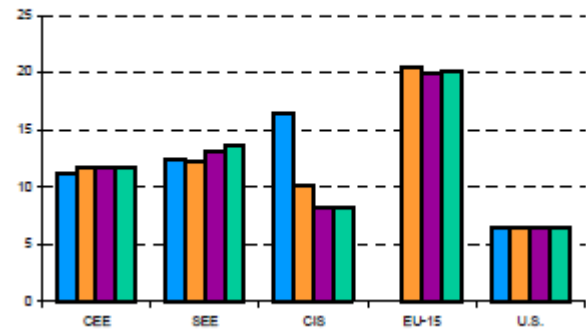
Tax wedge on labor, %



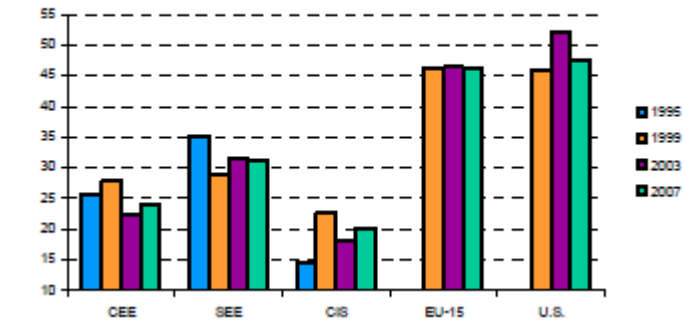
Expenditures on active labor market policies, % of GDP



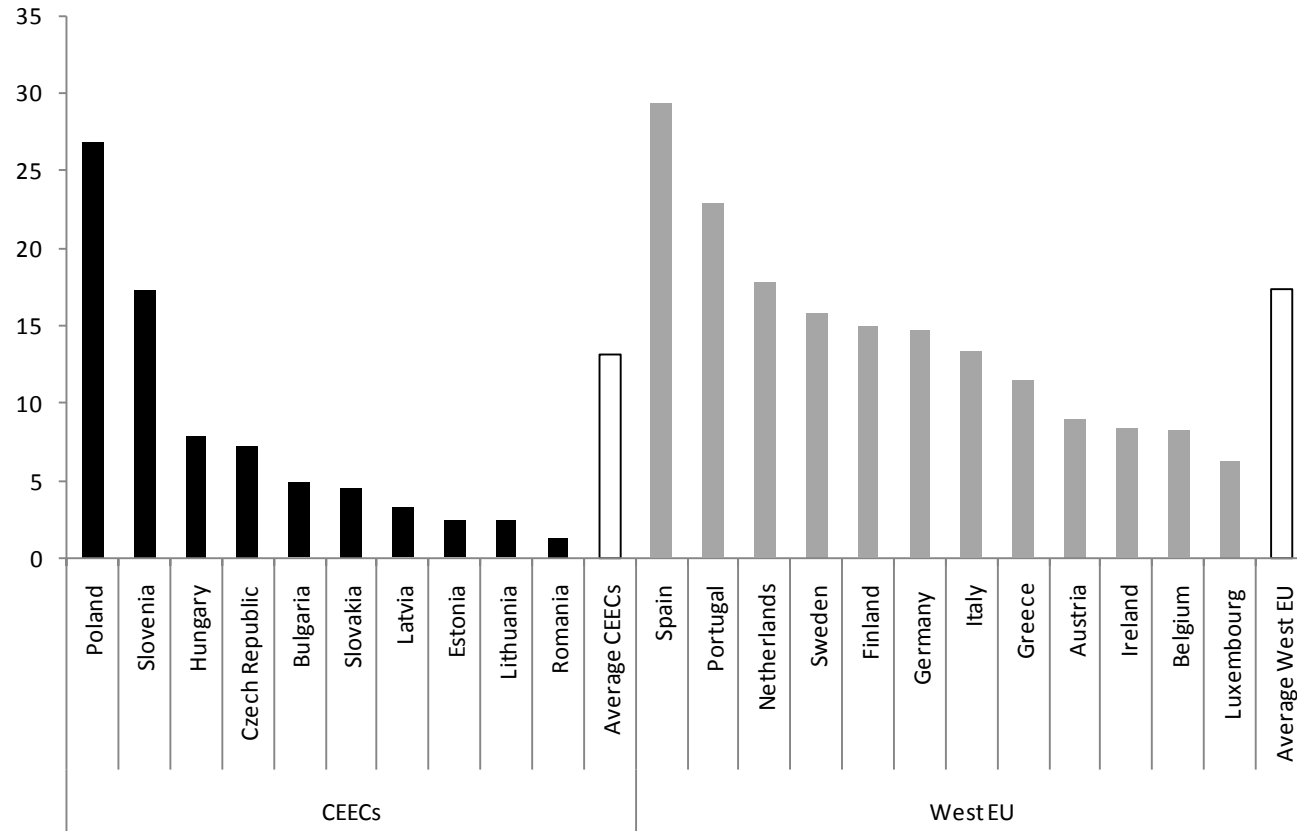
Duration of unemployment benefit, months



Average replacement ratio

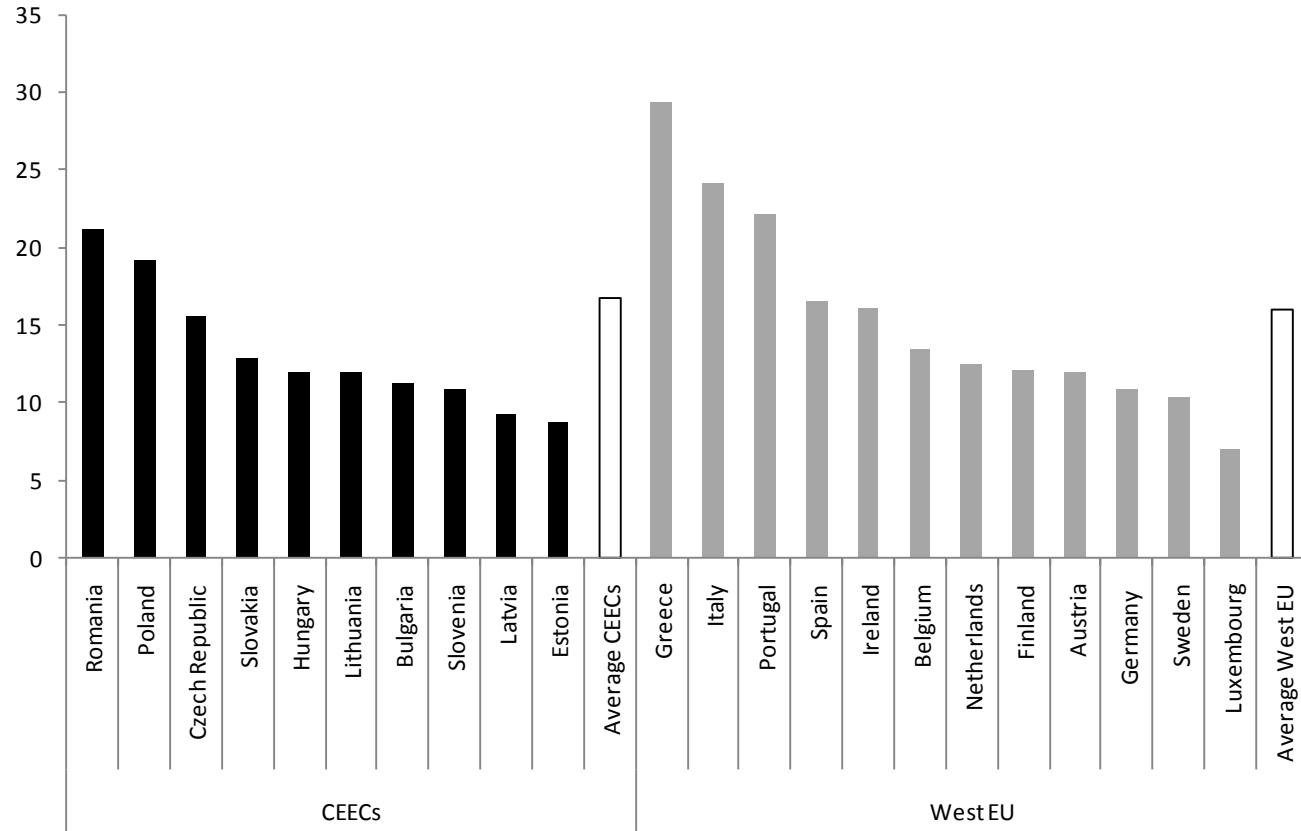


# *Proportion of temporary employees out of total employees in 2007*



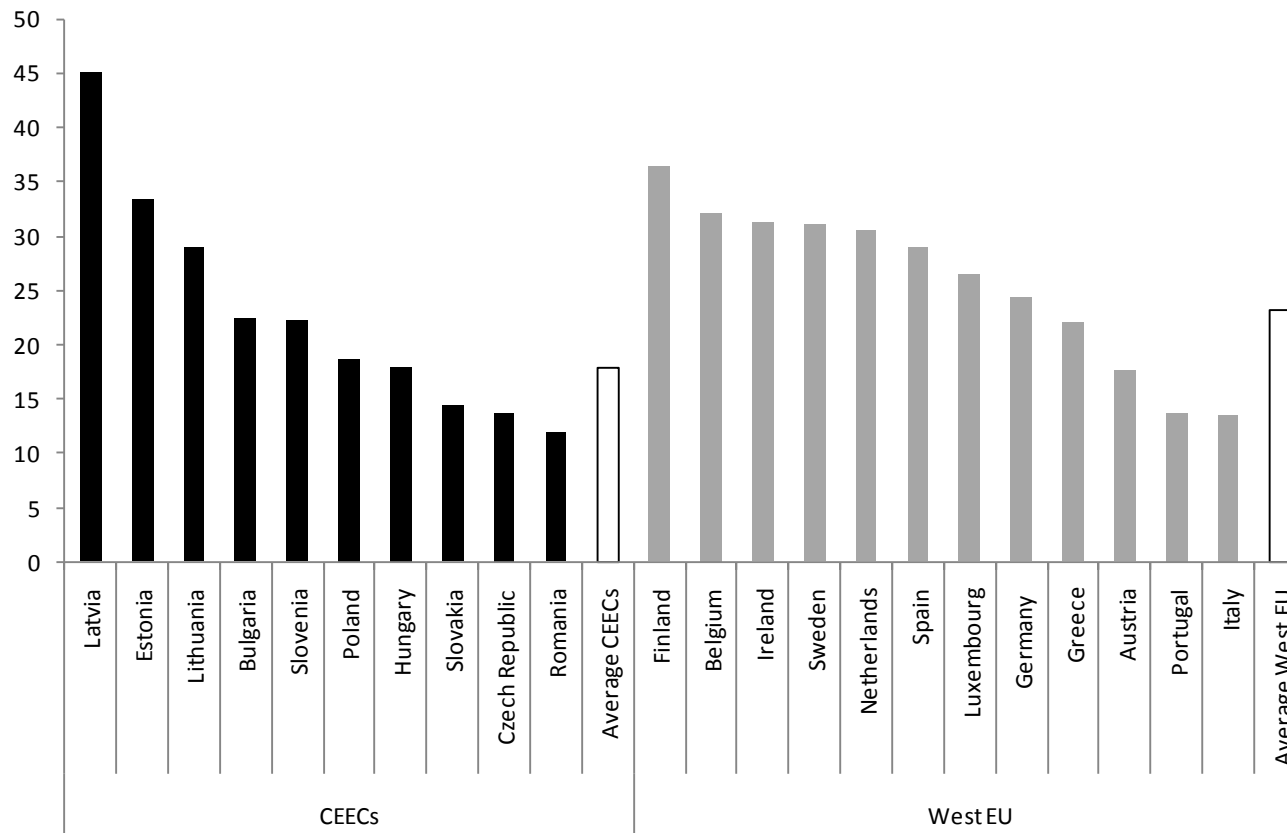
Source: Eurostat

# *Proportion of self-employed out of total employees in 2007*



Source: Eurostat

## *Proportion of population with tertiary education (25-64 years)*



Source: Eurostat