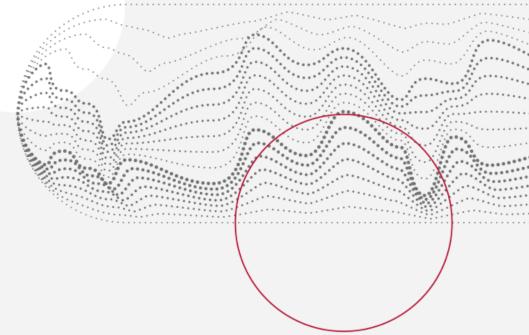# Within-firm and between-firm drivers of wage inequality in Central and Eastern Europe

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Università Cattolica del Sacro Cuore

The goal of the paper:

- contribute to the ongoing economic and policy debate on wage and income inequalities, by adding analysis **on changes in wage dispersion and their determinants in CEE countries in the 2000s**

The main research questions:

(1) the role of establishments in determining wage inequality in CEE countries? Wage differentials arising between firms or within?

(2) How did wage inequality evolve during the period of 2002-2010? What were the external institutional and economic factors that may motivate the observed changes?

(3) What are the microeconomic determinants of changes in wage dispersion in the CEE countries?

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Various strands of literature:

- the determinants and the evolution in wage inequalities (Autor et al., 2008; Lemieux, 2006), the role of firm level characteristics (Card et al. (2013) , Barth et al. 2014, Handwerker & Spleter (2015)

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- institutional development that influence wage setting mechanisms in CEE countries (Basu, et al. 2004, Magda et al. 2012, 2016).

DATASET AND VARIABLES

- **2002, 2006 and 2010 Structure of Earnings Survey** – a large **matched employer-employee** database.

- 9 CEE countries: CZ, EE, HU, LT, LV, PO, RO, SK & BG; over 16 milion individual observations

- Hourly wage – average gross hourly earnings in a given month

- variance of log hourly wages as our measure of wage inequality

METHODOLOGY: Three steps

- changes in the variance of (log) earnings for each country and next decompose it into a between- firms and within-firm components (a la Barth et al. 2014)

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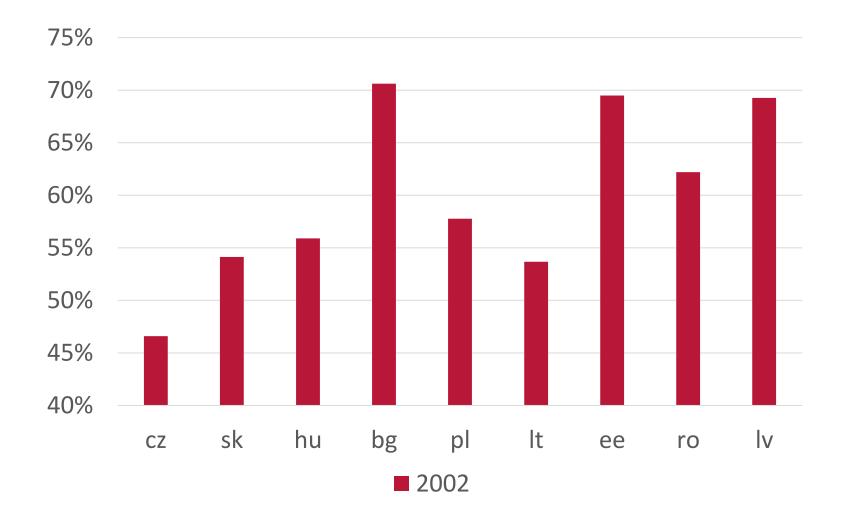$$\text{Var}(w)_{ij}^t = X'_{ij}\alpha^t + \epsilon_{ij}^t, \quad t = 2002, \ 2006, \ 2010$$

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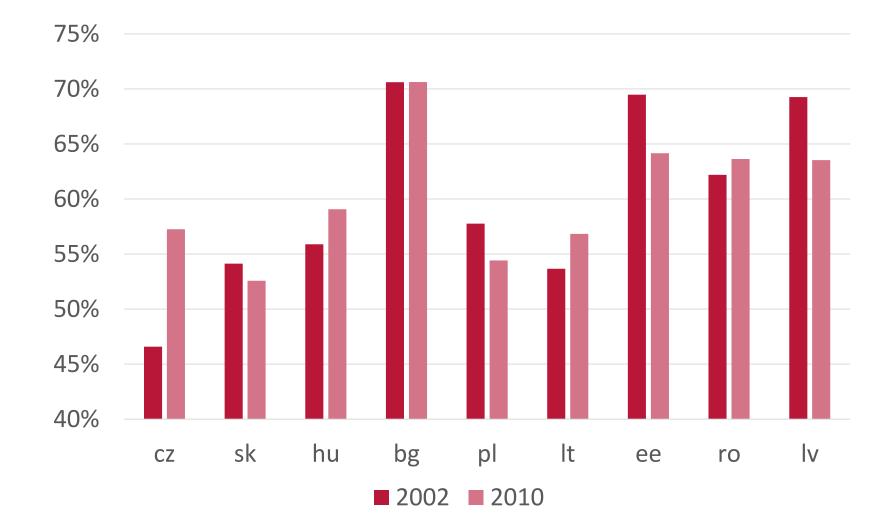
RESULTS (2) The between-firms share of Var between EU & US

RESULTS (2) but it converges as well

Results (3) Determinants of changes in wage dispersion

	CZ	HU	SK	PL	EE	LT	LV	BG	RO
Difference	0.040***	0.032***	-0.032**	-0.033***	-0.185***	-0.044***	-0.110***	-0.030**	-0.033**
Endowments	0.074***	0.125***	0.013	0.193***	0.007	0.056***	0.099**	0.164***	0.187***
Coefficients	0.154***	0.120***	0.032	-0.020**	-0.099***	-0.036**	-0.091***	0.155***	0.062***
Interactions	-0.188***	-0.213***	-0.077**	-0.207***	-0.093	-0.064***	-0.118***	-0.350***	-0.281***

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- Interaction terms explains most of decreased inequality – **institutional changes + economic crisis?**

CONCLUSIONS

- overall higher wage inequality at a country level appears to be associated with higher between- firm inequality, this between-firm inequality share between DE and US levels

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- Firm level characteristics an important contribution to (increased) wage inequality

- Changes in institutional setting and the crisis likely contributed to decreasing inequality?

NEXT STEPS

- 2014 data update

Thank you!

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