

MICRO-BASED DATASET FOR COLLECTIVE BARGAINING AND PRODUCTIVITY ANALYSIS

by Daniele Aglio

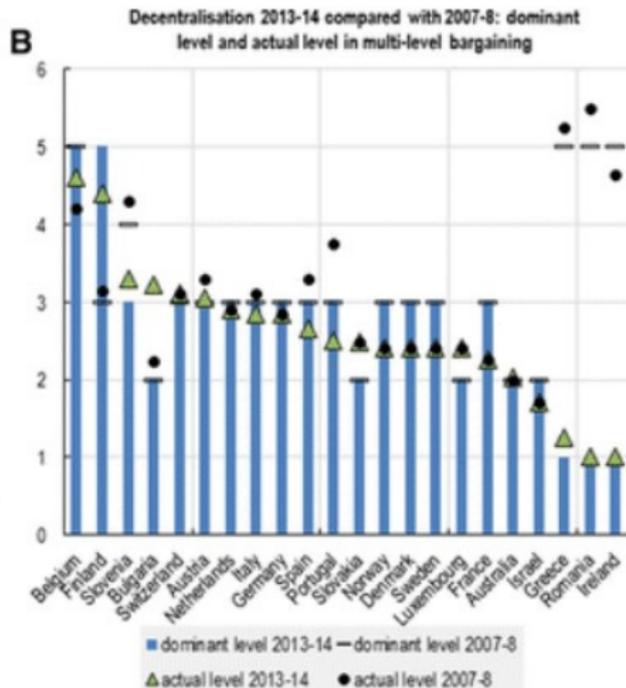
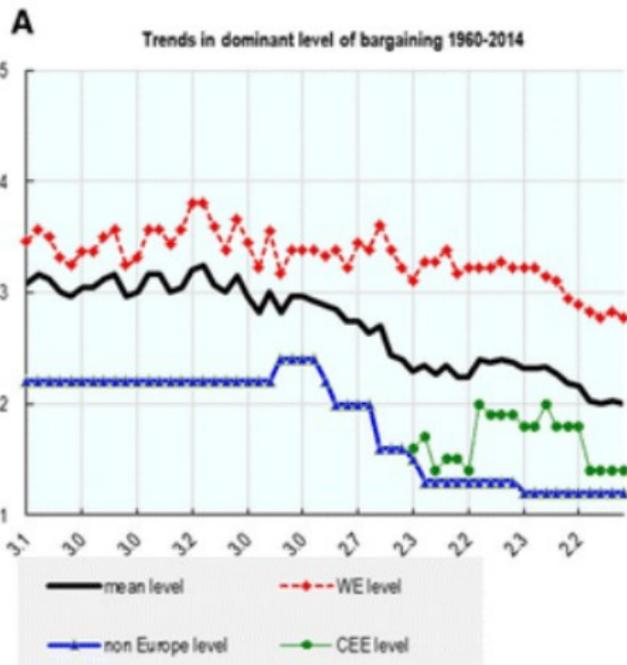
Koç University

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Motivation

Macro Trends in Collective Bargaining



A level is dominant if it accounts for at least 2/3 of the covered employees; taking into account op-outs and other derogations, it represents the actual level of bargaining. (Source: Visser, 2016)

CompNet-WDN Dataset

Cross-sectoral Analysis of Industrial Relations

- Merger between dataset of the Wage Dynamics Network (WDN) and CompNet (6th Vintage) , similarly to Di Mauro & Ronchi (2017)
- WDN: collective agreements (2007/2008 in 1st wave, 2010/2013 in 3rd wave)
- CompNet: indicators of productivity and other firm performances (1999-2015)

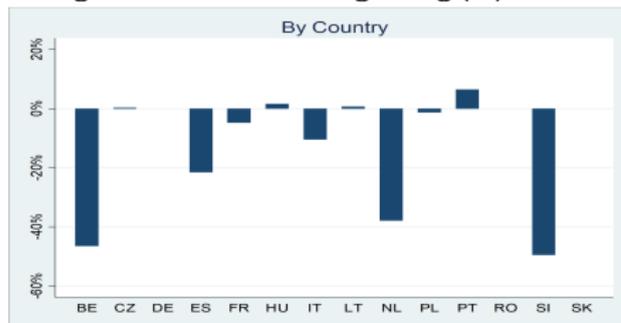
The final dataset is a panel including the following information:

- 4 macrosectors (Manufacturing, Construction, Trade, Services)
- 3 employment sizes (20-49, 50-249, 250+ employees)
- period 2004-2015
- All indicators of CompNet's database
- Shares of collective agreements

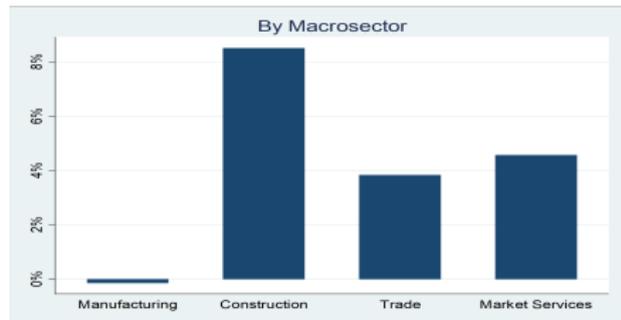
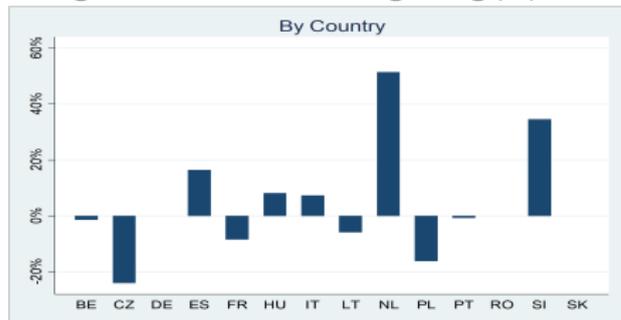
CompNet-WDN Dataset

Coherence with Macro Evidence

Change in Centralized Bargaining (%)



Change in Decentralized Bargaining (%)



Trends are similar to macro evidence (slide 3).

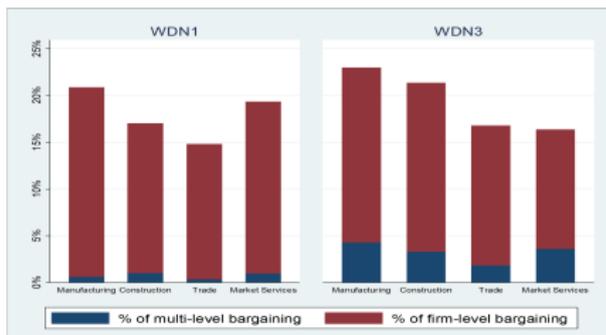
CompNet-WDN Dataset

Granularity

CEE Countries



Non-CEE Countries



CompNet-WDN Dataset

Correlation between Collective Bargaining and Total Factor Productivity

Figure 4. Correlation between TFP and Collective Bargaining Level (from WDN 1)

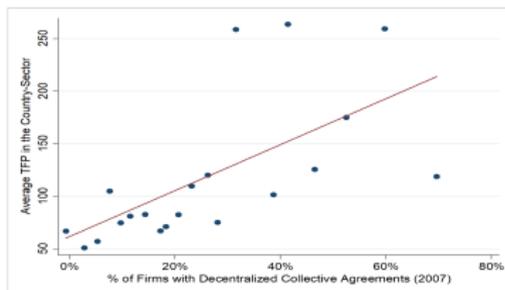
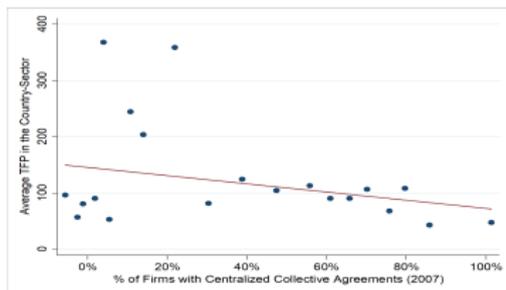
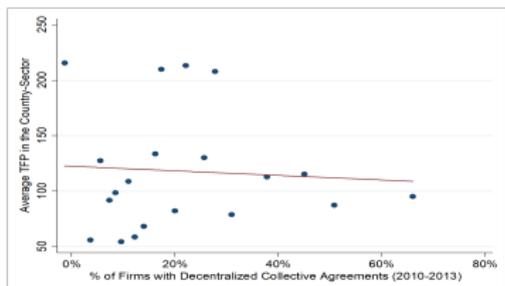
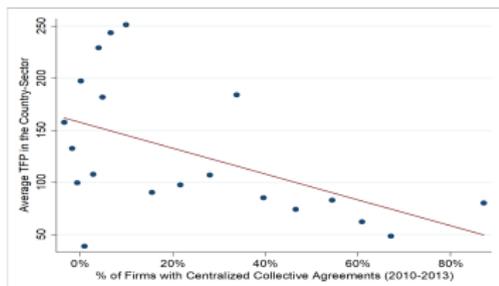


Figure 5. Correlation between TFP and Collective Bargaining Level (from WDN 3)

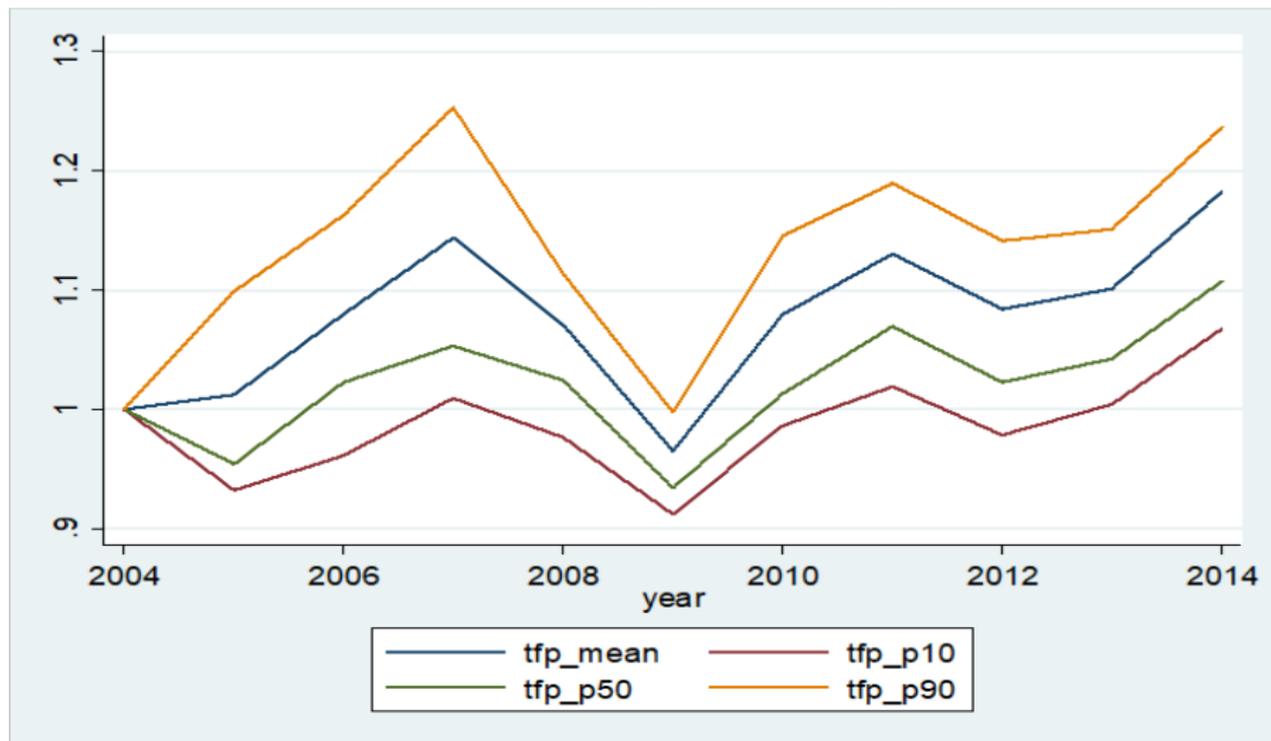


Decentralized collective agreements are those signed at multi- or firm-level.

Research Question

Could Decentralization in Collective Bargaining Foster Productivity after the Crisis?

Total Factor Productivity from 2004 (reference year) till 2014



This research is linked to the literature that aims at assessing unions effect on firm performance.

Critical issues:

- Most of the literature is conducted through cross-sectional analysis, potentially biased.
- There are still few studies that examine the linkage between decentralization and firm productivity.
 - Andrasson, 2014
 - Lindbeck & Snower, 2001

The regression model on which we base our analysis is the following (clustered by year-macrosector):

$$\begin{aligned}TFP_{sycz} = & \alpha + \beta_1 ML_{scz} + \beta_2 FL_{scz} + \beta_3 ML_{scz} I_{crisis} + \beta_4 FL_{scz} I_{crisis} \\ & + \beta_5 ML_{scz} I_{post_crisis} + \beta_6 FL_{scz} I_{post_crisis} + \gamma_1 Trend + \gamma_2 I_{crisis} \\ & + \gamma_3 I_{post_crisis} + D_C + D_Y + D_S + D_Z + \epsilon_{sycz}\end{aligned}$$

- WDN 1 only, to deal with endogeneity.
- Results are robust to different measures of TFP and additional controls.

Results

Total Factor Productivity on Shares of Collective Bargaining

TFP	Non-CEE Countries	CEE Countries
ML	0.40*** (0.05)	0.25 (0.97)
FL	-0.46*** (0.10)	0.55 (0.57)
ML*Crisis	0.02 (0.04)	1.17 (1.34)
FL*Crisis	-0.08** (0.04)	0.26 (0.43)
ML*Post_Crisis	0.23** (0.11)	1.92 (1.38)
FL*Post_Crisis	0.01 (0.07)	0.65 (0.52)
Constant	10.48*** (4.95)	-4.58 (57.96)
Observations	627	647
R-squared	0.88	0.64

Regressions include dummies for country, macrosector, year, and size effects, as well as controlling for trend, crisis and post-crisis period. Clustered standard errors at year-macrosector level in parentheses. *** p<0.01; ** p<0.05; * p<0.1.

Results

Interpretation: Unit Labour Costs on Shares of Collective Bargaining

Unit Labour Costs	Non-CEE Countries
ML	0.0001 -0.0009
FL	0.0009 -0.0014
ML*Crisis	-0.0025*** -0.0006
FL*Crisis	-0.0015** -0.0006
ML*Post_Crisis	-0.0023*** -0.0007
FL*Post_Crisis	0.0015 -0.0014
Constant	0.62*** -0.06
Observations	616
R-squared	0.52

Regressions include dummies for country, macrosector, year, and size effects, as well as controlling for trend, crisis and post-crisis period. Clustered standard errors at year-macrosector level in parentheses. *** p<0.01; ** p<0.05; * p<0.1.

Conclusion

- Decentralization takes place through firm-level negotiations in the CEE countries, while through multi-level bargaining in the non-CEE countries.
- The dataset, created to analyse the trend of collective bargaining at a cross-sectional micro-based degree, is coherent with macro evidence.
- Decentralization of collective bargaining has a robust positive impact on firms total factor productivity in the non-CEE countries, while there is no clear evidence for CEE countries.
- Further research is advised to better understand the mechanisms behind our findings. One possible explanation is that firms can increase competitiveness thanks to decentralized collective agreements.

Thank You for Kind Attention