Workplace characteristics and the gender wage gap – the case of 4 CEE countries

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The goal of the paper:
• to examine *how establishments shape the gender wage differentials* in selected post transition European countries

The main research questions:
• What is the role of firms and their characteristics in explaining gender wage inequality?
• Which firm characteristics are relevant and contribute to the gender wage gap?
RESEARCH FOCUS AND RESEARCH QUESTIONS

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The main research questions:
• What is the role of firms and their characteristics in explaining gender wage inequality?
• Which firm characteristics are relevant and contribute to the gender wage gap?
• Despite substantial changes in OECD labour markets and an improvement in female employment and participation rates, gender differences in pay remain high

• The issue of the gender wage gap continues to attract attention, both by researchers trying to fully understand its roots and development, and by policymakers

• Equal treatment laws demand firms to pay equal wages to men and women, yet there is mounting evidence of firm level gender pay gaps
INSTITUTIONAL SET-UP

We focus on 4 post-transition countries: PL, HU, CZ, SK

• Relatively low female participation rate, inflexibility (low share of part-time workers), and relatively high share of public sector

• Transition to a market oriented economy, with the consequence of many public institutions being privatized
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• Relatively low female participation rate, inflexibility (low share of part-time workers), and relatively high share of public sector

• Transition to a market oriented economy, with the consequence of many public institutions being privatized

• We focus on the firms’ characteristics in terms of the changes that took place following the transition.

Investigate how the timing in which the company has been set up affects its policies and consequently gender wage equality.
We analyze **gender wage inequality** by looking at the role of firms’ characteristics, and especially their „age“.
RESEARCH CONTRIBUTION

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• We distinguish between private and public institutions.
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We analyze these issues for 4 post-transition countries, in which firms substantially differ in terms of firm level wage policies due to the relatively recent transition to a market-oriented economy.
THEORETICAL BACKGROUND AND HYPOTHESES

• Start-ups tend to pay lower wages, ceteris paribus. On average, wages in newly founded establishments are 8% lower than in similar incumbent firms (Brixy, Kohaut, Schnabel 2007).

• Firms that have been operating on the labour market for longer tend to pay higher wages (Haltiwange et al. 1999).
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• **New businesses** exhibit greater heterogeneity in earnings and productivity than mature businesses (Haltiwanger et al 2007) \(\Rightarrow\) **Greater GWG?**

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• In transition countries, old firms started operating before the market changes, and are likely to carry the legacy of the past (lower wage inequalities) \( \Rightarrow \) Lower GWG?

• Old firms have already gained their position in the market, and thus they do not need to compete as much as the new firms \( \Rightarrow \) Greater GWG?
DATASET AND VARIABLES

DATASET

2010 Structure of Earnings Survey – a large matched employer-employee database.

KEY VARIABLES

• Hourly wage – average gross hourly earnings in a given month
• Firm cohort/age – proxied by the maximum tenure of employees (Moriconi et al. 2012)
• Private firms in the oldest cohort (~firms aged 20+) are likely to represent firms that existed before the transition (as public firms) and have been privatized.
DATASET AND VARIABLES: key challenges

• Different sampling procedures in ESES countries (and lack of detailed information documentation here)
• Is it be possible to calculate within firm gender pay gaps?
METHODOLOGY

- OLS wage regression with female dummy reflecting the unexplained GWG

- Individual level controls:
  - Age, education
  - Tenure, part-time status, occupations, co-workers characteristics (unobserved heterogeneity)

- Firm level controls:
  - Firm size
  - Firm age (proxy)
  - NACE sector,
  - Region

- Firm level controls interacted with female dummy → how firm characteristics contribute to GWG
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<thead>
<tr>
<th></th>
<th>CZ</th>
<th>HU</th>
<th>PL</th>
<th>SK</th>
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</thead>
<tbody>
<tr>
<td>No of firms</td>
<td>18 046</td>
<td>26 529</td>
<td>17 041</td>
<td>5 799</td>
</tr>
<tr>
<td>No of individuals</td>
<td>1 993 625</td>
<td>835 207</td>
<td>681 702</td>
<td>773 860</td>
</tr>
<tr>
<td>Average size</td>
<td>110</td>
<td>31</td>
<td>40</td>
<td>133</td>
</tr>
</tbody>
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Distribution of workers across firm cohorts

| Age: 0-3 | 8% | 16% | 7% | 7% |
| Age: 3-10 | 15% | 23% | 19% | 27% |
| Age: 10-20 | 25% | 24% | 30% | 37% |
| Age:>20 | 52% | 37% | 44% | 28% |

% private sector workers

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<tbody>
<tr>
<td>workers</td>
<td>75%</td>
<td>65%</td>
<td>63%</td>
<td>70%</td>
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RESULTS: OLS regressions

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<tbody>
<tr>
<td>female</td>
<td>-0.186***</td>
<td>-0.142***</td>
<td>-0.180***</td>
<td>-0.213***</td>
</tr>
<tr>
<td>Female * f_age0-3</td>
<td>0.168***</td>
<td>0.116***</td>
<td>0.027***</td>
<td>0.087***</td>
</tr>
<tr>
<td>Female * f_age 3-10</td>
<td>0.077***</td>
<td>0.054***</td>
<td>0.042***</td>
<td>0.054***</td>
</tr>
<tr>
<td>Female * f_age 20+</td>
<td>0.009*</td>
<td>-0.041***</td>
<td>0.029***</td>
<td>-0.017***</td>
</tr>
</tbody>
</table>

Controls: personal (age, education, tenure), job characteristics (occupation, PT, ) firm characteristics (size, NACE), firm's age
## RESULTS: OLS regressions, private sector

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<tbody>
<tr>
<td>female</td>
<td>-0.189***</td>
<td>-0.161***</td>
<td>-0.199***</td>
<td>-0.210***</td>
</tr>
<tr>
<td>Female * f_age0-3</td>
<td>0.180***</td>
<td>0.122***</td>
<td>0.041***</td>
<td>0.082***</td>
</tr>
<tr>
<td>Female * f_age3-10</td>
<td>0.083***</td>
<td>0.059***</td>
<td>0.060***</td>
<td>0.064***</td>
</tr>
<tr>
<td>Female *f_age 20+</td>
<td>-0.057***</td>
<td>-0.068***</td>
<td>-0.042***</td>
<td>-0.06***</td>
</tr>
</tbody>
</table>

Controls: personal (age, education, tenure), job characteristics (occupation, PT, ) firm characteristics (size, NACE), firm's age
CONCLUSIONS

• In this paper we analyze the link between firms’ age and the gender pay gap for 4 post-transition EU economies, 20 years after the transition.
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• Gender pay gaps are visibly lower among employees of younger firms, and higher among employees of older firms; the pattern holds strong for all countries.

• Segregation of employees does not seem to explain these cohort differences.

• The pattern of GWG – firm’s age link suits the competition explanation of firm level GWGs.
• Control better for workers’ tenures and their distribution (as GWG tend to increase with tenures, Chevalier 2004)

• Could there be a selection of workers (women?) into older and new firms?

• Ñopo matching as robustness check?

• Can we calulate within firm gender wage gaps?
Thank you!

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