Employment differences in Europe

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Employment differences in Europe
(2013, per cent)
Observations

- High rates characterises Scandinavian and German-speaking countries, and the Netherlands.
- Employment rate is low in Southern Europe and in Central and Eastern Europe (CEE) (new EU member states)
  - There are only some exceptions: CZ and Baltic countries.
- There are really huge differences:
  - The difference between the employment rate of Island and Greece is more than 32 percentage points. (2015: 33,9)
Questions

• Why can we observe so large employment differences in Europe?
• What factors determine these differences from the view of
  – Demography (gender, age, education level)
  – Professional status
  – Firm size
  – Sector features
Data

- EU LFS data:
  - Representative household survey
  - Data of 31 European countries
  - Year: 2013
  - Age group: 15-64
Used variables

• Labour market status:
  – Based on ILO definitions (ILOSTAT)
  – **Employed**, Unemployed or economically inactive (not in Labour Force)

• Gender

• Age:
  – 10 age groups:
    • 15-19, 20-24,..., 60-64

• Highest level of education successfully completed:
  – 8 groups:
    • ISCED1, ISCED2, ISCED3ab, ISCED3c, ISCED4, ISCED5a, ISCED5b és ISCED6
Method

• Probit model:
  
  \[ P_i(empl = 1) = \Phi(\beta_0 + \beta_1 X_i + \varepsilon_i) = \Phi(\beta X_i) \]
  
  – where:

    • \( \Phi(\cdot) \) is the cumulative distribution function of normal distribution
    • Explanatory variables:
      – Gender,
      – Age,
      – Level of Education.

• Employment probability:
  
  \[ \hat{P}_i = \Phi(\hat{\beta}_0 + \hat{\beta}_1 X_i) = \Phi(\hat{\beta} X_i) \]
Employment differences

• Benchmark country:
  – Based on Employment rates and Demographic structure
  – France (FR)

• Total difference = composition effect + employment effect (example for DE)
  • \( \Phi(\hat{\beta}^{DE}X^{DE}_i) - \Phi(\hat{\beta}^{FR}X^{FR}_i) = [\Phi(\hat{\beta}^{DE}X^{DE}_i) - \Phi(\hat{\beta}^{DE}X^{FR}_i)] + [\Phi(\hat{\beta}^{DE}X^{FR}_i) - \Phi(\hat{\beta}^{FR}X^{FR}_i)] \)
Results

• **High employment advantages** compared to France:
  – Scandinavian-countries: IS, SE, DK, FI
  – German-speaking countries: DE, CH and AT
  – The Netherlands (NL)

• **High employment gaps** compared to France:
  – Southern European EU15 countries: IT, ES and GR
  – Central and Eastern European (CEE) countries: HU, PL, SK, BG, RO.
  – Croatia (HR).
Advantages

- **Employment effect** dominates.

- **Gender:**
  - Female:
    - Scandinavian countries
  - Male:
    - German-speaking countries and the Netherlands
Advantages

• Age:
  – Advantages are the highest in age groups 15-24 and 55-64.
Advantages

• Education level (age group 25-64):
  – Advantages are focused on:
    • the primary
      – IS, CH and NL have outstanding advantages.
    • or secondary level of education.

• General favorable employment situation.
• Composition effects are higher, but employment effect dominates.
Gaps

- Gender:
  - Gaps of females are relatively higher.
  - Gaps of females aged 25-39 are typical.
Gaps

• Education level (age group 25-64):
  – In CEE countries and in HR:
    • high gaps on the primary level of education.
  – Southern European EU15 countries:
    • high gaps on the secondary and tertiary level of education.

• The gaps are general.
Next Questions

• Which groups contribute to employment gaps?
• How do some countries achieve high employment rates?
## Employment differences: Austria compared to France

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<td>ISCED1</td>
<td>0.105</td>
<td>0.019</td>
<td>-0.116</td>
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<td>0.245</td>
<td>0.086</td>
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<td>ISCED3c</td>
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<td>ISCED5a</td>
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<td>ISCED5b</td>
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<td>ISCED6</td>
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<td>0.002</td>
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### Male

- Austria versus France:
  - the individual employment probability in France is lower than in Austria
  - From view of France: critical group
  - From view of Austria: core group
The cause of gap

• Critical group:
  – persons in France that have lower individual employment probabilities than in Austria

• The non-employed members of critical group in France will be employed in a better employment situation of Austria by a probability:
  \[ \frac{(P_i^{AT} - P_i^{FR})}{(1 - P_i^{FR})} \].

• What changes would happen in France if the individual employment probabilities of non-employed persons belonging to the critical group were so high as in Austria?
The gaps of France

- Economically inactive population:
  - Students,
  - Pensioners.
The cause of higher employment

• Core group:
  – persons in Austria that have higher individual employment probabilities than in France

• The probability that an employed member of core group in Austria will be non-employed if the worse situation of France applies is:
  \[ \left( P_{i}^{AT} - P_{i}^{FR} \right) / P_{i}^{AT} \].

• Which jobs would disappear in Austria?
  – Professional status
  – Firm size
  – Sector

• Measures:
  – Percentual composition,
  – Relative measure:
    • Comparison of rates of disappeared jobs, if the ratio is above 1 then the category is important.
The cause of higher employment

- Professional status:
  - Atypical forms of employment.
  - German-speaking countries:
    - Temporary contracts.
  - In the Netherlands and Scandinavian countries:
    - Part-time jobs.

- Firm size:
  - Micro and small firms.
The cause of higher employment

• Industries:
  – The most important employer of the core group is:
    • Wholesale and retail trade; repair of motor vehicles and motorcycles (G).
  – In Scandinavian countries and in the Netherlands:
    • Accommodation and food service activities (I).
  – German-speaking countries:
    • Manufacturing (C) and Construction (F).
The cause of higher employment

• Age group 15-24:
  – Part-time jobs,
  – Temporary contracts.

• Age group 55-64:
  – Part-time jobs.
  – Temporary contracts:
    • Scandinavian-countries females.
The gaps of new EU member states and Southern European EU15 countries

- Higher importance of unemployed:
  - ES and GR.
- Economically inactive population:
  - Southern European EU15:
    - Students,
    - Persons fulfilling other domestic tasks (RO too).
  - V4 countries:
    - Disabled,
    - Pensioners (RO and HR too).
Why is employment in France higher?

• Professional status:
  – Atypical forms of employment.
    • Temporary contracts.
    • Part-time jobs.

• Firm size:
  – Micro firms.
Why is employment in France higher?

• Industries:
  – The most important employer of the core group is:
    • Human health and social work activities (Q)
    • Wholesale and retail trade; repair of motor vehicles and motorcycles (G).
    • Accommodation and food service activities (I).
Why is employment in France higher?

- Age group 15-24:
  - Temporary contracts,
  - Part-time jobs.
- Females aged 55-64:
  - Temporary contracts,
  - Part-time jobs.
Conclusion

• Employment differences are general.
• Important age groups:
  – 15-24,
  – 55-64.
• Types of employment:
  – Atypical forms.
Thank you for your attention.