Income Inequalities within Couples in the Czech Republic and Selected European Countries

Martin Kubíček
&
Martina Mysíková

European User Conference for EU-LFS and EU-SILC,
March 5-6, Mannheim
Motivation

- Most studies dealing with income inequality consider the individual and/or household as the basic unit of research.
- Society is highly structured in terms of internal household organization.
- Both approaches ignore income re/distribution within the household.
- The tax-benefit system redistributes the income not only among the households but also between the household members.
Literature

- Rejection of income pooling assumption (e.g., Heimdal and Houseknecht, 2003; Browning et al., 1994; Phipps and Burton, 1998)
- Within-household income distribution can influence the decision-making, bargaining power, expenditures on consumption etc.
- Thomas (1990): unearned income in the hands of a mother contribute to the family health; strong positive effect on child survival probabilities; Brazil, 70’s
- Lundberg, Pollak, Wales (1996): child allowance transferred to wives caused greater expenditures on women’s and children’s clothing; UK, 70’s
Aim

- Detailed description of within-couple income distribution
- Compare redistributive functions of social and tax systems
- Key indicator: Female share of total household income
Methodology and data limitation

- EU-SILC 2006

- Countries selection
  - Czech Republic (CZ)
  - Poland (PL) as another new EU member state
  - Spain (ES) as a representative of southern Europe
  - Sweden (SE) as a representative of Scandinavian countries

- Problem: both gross and net earned individual income variables have to be available
Methodology and data limitation
Sample selection criteria

- Working age couples living in the same household
  i.e. two adults living in partnership with the older one aged 65 or less where the other members, if any, are solely dependent children

- Problem: couple identification
  - EU-SILC variable *Household type* deals with „two adults“ not necessary forming a couple
  - *Spouse/partner ID* and *Consensual Union* – do not always match (Germany, Luxembourg, Norway)
Methodology and data limitation
Female share of household income

- Indicator of within-couple income distribution
  - **Gross** earned income
  - **Net** earned income
  - **Disposable** income
    - net earned income + (net) social benefits
Methodology and data limitation

Income variables

- Gross earnings from employment and self-employment
- Net earnings from employment and self-employment
- Benefits
  - Individual level: unemployment benefits, sickness benefits, disability benefits, and education-related allowances
  - Household level: family and children related allowances, housing allowances, and benefits related to social exclusion not elsewhere classified
Methodology and data limitation

Problems

- Negative income (mainly from self-employment)
  - Excluded (negative female share or, even worse, positive)

- Only gross benefits values stated in some countries
  - Conversion into net values is impossible
Methodology and data limitation

Problems

- Benefits aggregated to household level
  - Split in half between the couple
  - Justification - benefits are mostly intended for the support of the whole family
  - But
    - Empirics show that it **does** matter who receives the benefits in the first instance
  - Benefits during maternal and parental leave are rather individual – compensation for lost earned income
Results
<table>
<thead>
<tr>
<th>EU-SILC 2006</th>
<th>CZ</th>
<th>ES</th>
<th>PL</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size (unweighted)</td>
<td>2298</td>
<td>3964</td>
<td>4112</td>
<td>2444</td>
</tr>
<tr>
<td>% of all households</td>
<td>34.1</td>
<td>34.1</td>
<td>27.3</td>
<td>28.3</td>
</tr>
<tr>
<td>% of all couples</td>
<td>52.9</td>
<td>47.7</td>
<td>43.1</td>
<td>55.4</td>
</tr>
<tr>
<td><strong>Sample characteristics (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without children</td>
<td>29.7</td>
<td>28.4</td>
<td>22.7</td>
<td>44.7</td>
</tr>
<tr>
<td>With children</td>
<td>70.3</td>
<td>71.6</td>
<td>77.3</td>
<td>55.3</td>
</tr>
<tr>
<td>Older partner aged under 40</td>
<td>49.6</td>
<td>48.3</td>
<td>50.2</td>
<td>47.0</td>
</tr>
<tr>
<td>Older partner aged 40+</td>
<td>50.4</td>
<td>51.7</td>
<td>49.8</td>
<td>53.0</td>
</tr>
<tr>
<td>Man only worked*</td>
<td>24.9</td>
<td>31.6</td>
<td>23.6</td>
<td>11.1</td>
</tr>
<tr>
<td>Woman only worked*</td>
<td>3.2</td>
<td>2.6</td>
<td>7.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Both worked*</td>
<td>68.4</td>
<td>64.2</td>
<td>64.2</td>
<td>82.7</td>
</tr>
<tr>
<td>Neither worked (whole year)*</td>
<td>3.5</td>
<td>1.6</td>
<td>5.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Not married</td>
<td>13.3</td>
<td>11.3</td>
<td>5.1</td>
<td>40.9</td>
</tr>
<tr>
<td>Married couple</td>
<td>86.7</td>
<td>88.7</td>
<td>94.9</td>
<td>59.1</td>
</tr>
</tbody>
</table>

* The economic activity was derived according to the number of months when the main activity of a respondent was full-time or part-time work. Even if the number of worked months was zero, the earnings can be positive (irregular work or the individual worked less than half of the month).
All couples

Female share of total household income (%)

- **CZ**
- **ES**
- **PL**
- **SE**

- **gross income**
- **taxes + contributions**
- **benefits**
Couples in which woman has higher income

% of all couples

- CZ
- ES
- PL
- SE

- gross income
- net income
- disposable income
By equivalised household income

Female share of total household income (%)

- Gross income
- Taxes + contributions
- Benefits

Bottom quintile

Top quintile
Structure of couples – by female „gross“ share and by equivalised household income

Botom quintile

Top quintile

<table>
<thead>
<tr>
<th>Country</th>
<th>CZ</th>
<th>ES</th>
<th>PL</th>
<th>SE</th>
<th>CZ</th>
<th>ES</th>
<th>PL</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female share 0</td>
<td>30</td>
<td>35</td>
<td>25</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Female share (0,50]</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Female share (50,100)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Female share 100</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Legend:
- Green: female share 0
- Yellow: female share (0,50]
- Orange: female share (50,100)
- Light green: female share 100
Both worked

Female share of total household income (%)

- CZ
- ES
- PL
- SE

- yellow: gross income
- red: taxes + contributions
- green: benefits
By presence of children

<table>
<thead>
<tr>
<th>Country</th>
<th>Female share of total household income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With children</td>
</tr>
<tr>
<td></td>
<td>gross income</td>
</tr>
<tr>
<td>CZ</td>
<td>32</td>
</tr>
<tr>
<td>ES</td>
<td>23</td>
</tr>
<tr>
<td>PL</td>
<td>26</td>
</tr>
<tr>
<td>SE</td>
<td>30</td>
</tr>
<tr>
<td>CZ</td>
<td>42</td>
</tr>
<tr>
<td>ES</td>
<td>37</td>
</tr>
<tr>
<td>PL</td>
<td>41</td>
</tr>
<tr>
<td>SE</td>
<td>44</td>
</tr>
</tbody>
</table>

Legend:
- Yellow: Gross income
- Red: Taxes + contributions
- Green: Benefits
By age

Older partner aged under 40

Female share of total household income (%)

By age

CZ
ES
PL
SE
CZ
ES
PL
SE

gross income

benefits

taxes + contributions

-10
0
10
20
30
40
50
By marriage

<table>
<thead>
<tr>
<th>Country</th>
<th>Not married</th>
<th>Married couple</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Female share of total household income (%)

- Gross income
- Taxes + contributions
- Benefits
Couples with increase in female share

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Change</th>
<th>Tax + Contributions</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td>75%</td>
<td>45%</td>
<td>30%</td>
</tr>
<tr>
<td>ES</td>
<td>50%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>PL</td>
<td>50%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>SE</td>
<td>60%</td>
<td>40%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Summary

- Differences among countries:
  - The highest within-couple income inequality is in CZ and ES
  - Tax system equalizes the income inequality the most in SE and ES
  - Benefits system equalizes the income inequality the most in CZ and SE

- Factors that generally contribute to greater income inequality within couples:
  - Children
  - Younger couples
  - Marriage
Thank you for your attention...
References:


