Public redistribution in Europe: How does it affect the income of families?
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14th Global Meeting of the NTA Network, February 2023

The research is supported by the Jubiläumsfond of the Austrian National Bank under Project no 18465
Based on:


• Intro
• Measuring public redistribution: Net benefit ratios
• Between generations?
• Between income groups?
• Public redistribution and families
Our motivation: analyse differences within age groups:

Who are the individuals that receive and pay public transfers?

Where in the income distribution are they located?

Source: Hammer 2015: National Transfer Accounts for Austria 2015
Measuring public redistribution: benefit ratios
Data

• EU-SILC: microdata on income and living conditions for European countries. Contains market income, social contributions/benefits at individual and household level

• EUROMOD is a (static) tax-benefit microsimulation model based on EU-SILC, used for the evaluation of changes in the tax-benefit system

⇒ EUROMOD produces micro-data with information on market income, direct taxes and cash benefits at individual and household level.

• Model updated for each year: we use EU-SILC from 2018, EUROMOD policies from 2018.

Limitations: Ignores indirect taxes and in-kind benefits
Our focus is on net benefits / net contributions defined as benefits received less taxes paid at household level over a given year:

- **Net benefits**: social benefits received less taxes paid (at household level if benefits > taxes)
- **Net contributions**: taxes paid less social benefits received at household level if taxes > social benefits

⇒ Net benefits/contributions measure net redistribution between households
## Data: net benefits (example)

<table>
<thead>
<tr>
<th>Pers-ID</th>
<th>Market inc</th>
<th>Benefits</th>
<th>Taxes</th>
<th>Net ben(+)/con(-)</th>
<th>Disposable income</th>
<th>HH net benefits</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>200</td>
<td>+8,100</td>
<td>-2,800</td>
<td>5,300</td>
<td>5,500</td>
<td>3,525</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>+2,100</td>
<td>-350</td>
<td>1,750</td>
<td>1,850</td>
<td>3,525</td>
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<tr>
<td>Avg.</td>
<td>150</td>
<td>+5,100</td>
<td>-1,575</td>
<td>3,525</td>
<td>3,675</td>
<td>3,525</td>
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</table>

=> Our focus is on net benefits at household level
Net benefit ratio (NBR): 

• Net benefits targeted to a particular group (J) of households, relative to total disposable income in the economy.

\[
J-NBR = \frac{\sum_{i=1}^{n} \text{net benefits of individual } i}{\text{Total disposable income}}, i \in J
\]

\(n\)… number of individuals in selected group of households
Benefit ratios

- **Total-NBR**: net benefits of all households relative to total disposable income (DI)

**Generational perspective:**
- **Pension-NBRs**: net benefits directed to person living in pensioner households
- **Non-pension NBRs**: net benefits directed to person living in non-pensioner (working-age) households

**Income perspective**
- **Q1-NBR**: net benefits of income-poorest quarter relative to DI
- **Q4-NBR**: net benefits of income-richest quarter relative to DI

**Socioeconomic characteristics**
- **Family-NBR**
Between generations?
Total-net benefit ratio

• Ranges between 12% and 29%

• Pronounced geographical pattern:

• High redistribution in Southern and Western Europe (+ Finland)

• Low total redistribution in Eastern and Northern European countries
Income perspective
Q4-net benefit ratio

Net benefits directed to the quarter of the population with highest income

- Range: 0% - 11%
- High values in Southern European countries
- Low values in Northern Europe

Determinants:

⇒ Generosity of public pensions
⇒ Share of pensioner in Q4
Q1-net benefit ratio

(Net benefits directed to the quarter of the population with lowest income)

- Range: 3% - 11% of DI
- Low values in Southern European countries
- High values in Northern Europe

Determinants:

⇒ Share of pensioners in Q1
⇒ Non-pension benefits
Income components of Q1-non-pensioners

Income components of the Q1-non-pensioner population:
Averages relative to mean disposable income

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</table>
Families and public transfers?
Our idea:

• If public transfers are so important for low-income households in working age, it must be best visible in income of families

• Low EHI due to dependent children
• Receive family benefits
• Pay contributions through labour income

=> In countries with low benefits and high contributions families are expected to have lower income.
Families in the income distribution

Share of families in the half of the population with the highest income (EHI)

In most countries families equally distributed over income distribution (despite children which reduce EHI)

- In general, families are net contributors in all countries
- Net benefits (cash) directed to families are small in all countries
Interaction of private and public transfers

=> Public net benefits are not directly visible in lower income of families compared to others

Reasons

• Selection of those with higher income into partnership and parenthood
• Young adults do not have children if they do not have sufficient income
• Live with grandparents
• Work more than childless persons

We have to extend our analysis:

=> How do public transfer systems affect income of families, family formation and family organisation (private transfers to children)?
Summary

Figure: Redistribution to rich retirees and low income working-age population in Europe

Huge differences in public redistribution in Europe:

Protection of low-income households in Northern Europe.

Protection of income in retirement in Southern Europe, large share of benefits directed to those with highest income.