How are Inequality and Poverty Linked?

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Motivation

• There is a well documented upward trend in inequality in high and middle income countries since 1970s; although not everywhere, and trends are not uniform across countries and vary across different measures

• A growing concern about potential harmful effects of inequality on societies, including the role inequality played in the lead up to the financial crisis

• Recent shift in thinking away from the assumption that policy can successfully target poverty reduction (including in rich and middle income countries) without addressing income inequalities

• Big players - World Bank, United Nations, World Economic Forum, OECD, Oxfam, etc – setting twin goals and outlining recommendations that policy needs to simultaneously tackle poverty and inequality in rich as well as poor countries

• ... but knowledge and evidence gaps on the nature of the relationship between economic inequality and poverty
Measurement issues

• Measures of income inequality and poverty are summary statistics often calculated from the same distribution (household income), therefore we would expect these measures will be linked in a ‘mathematical/mechanical’ sense.

• The strength of the relationship between inequality and poverty will depend on the extent to which any inequality measure is sensitive to dispersion of income in the lower half of the income distribution.

• Theoretically it is possible to have: (1) no relative income poverty (income < 60% median income) but high inequality (high concentration of income among a small group of very rich households); high relative income poverty but low inequality (very low dispersion of income above the median) but in practise this is rarely observed.
UK Poverty and Income Inequality Trends
1961-2015/16
**Relationship between UK poverty and income inequality (Gini)**

**Before housing costs**

\[ y = 0.5735x - 0.0132 \]

\[ R^2 = 0.6862 \]

**After housing costs**

\[ y = 0.7261x - 0.0496 \]

\[ R^2 = 0.8819 \]
Relationship between poverty and income inequality (decile ratios) – before housing costs

\[ y = 0.2432x - 0.3061 \]
\[ R^2 = 0.9246 \]

\[ y = 0.165x - 0.1528 \]
\[ R^2 = 0.7022 \]
Relationship between poverty and income inequality (decile ratios) – after housing costs

\[
y = 0.161x - 0.1518 \\
R^2 = 0.8772
\]

\[
y = 0.2308x - 0.2636 \\
R^2 = 0.8926
\]
Relationship between poverty and top 1% share – before housing costs
Levels of income inequality and relative income poverty are strongly correlated across countries

Inequality and relative income poverty risk in 2014 for 26 European countries

...so are changes in inequality and changes in poverty – European countries 1996-2014

<table>
<thead>
<tr>
<th>A. Gini</th>
<th>Dependent variable: Change in log relative poverty</th>
<th>Dependent variable: Change in log average poverty gap</th>
<th>Dependent variable: Change in log anchored poverty risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Change in log Gini</td>
<td>0.598***</td>
<td>0.580***</td>
<td>0.576***</td>
</tr>
<tr>
<td></td>
<td>(6.53)</td>
<td>(6.20)</td>
<td>(6.38)</td>
</tr>
<tr>
<td>Log income base year</td>
<td>-0.076</td>
<td>-0.036</td>
<td>0.134</td>
</tr>
<tr>
<td></td>
<td>(-0.81)</td>
<td>(-0.39)</td>
<td>(1.70)</td>
</tr>
<tr>
<td>Log inequality base</td>
<td>-0.145</td>
<td>-0.119</td>
<td>-0.028</td>
</tr>
<tr>
<td></td>
<td>(-1.16)</td>
<td>(-0.92)</td>
<td>(-0.21)</td>
</tr>
<tr>
<td>Income growth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td>0.109</td>
<td>-0.058</td>
<td>-0.142***</td>
</tr>
<tr>
<td></td>
<td>(1.08)</td>
<td>(-0.51)</td>
<td>(-2.85)</td>
</tr>
<tr>
<td>High</td>
<td>0.106</td>
<td>-0.278*</td>
<td>-0.546***</td>
</tr>
<tr>
<td></td>
<td>(0.91)</td>
<td>(-1.71)</td>
<td>(-7.73)</td>
</tr>
<tr>
<td>Negative</td>
<td>0.022</td>
<td>0.225*</td>
<td>0.263**</td>
</tr>
<tr>
<td></td>
<td>(0.24)</td>
<td>(1.87)</td>
<td>(2.71)</td>
</tr>
<tr>
<td>Obs.</td>
<td>88</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Adjusted R-sq.</td>
<td>0.350</td>
<td>0.344</td>
<td>0.331</td>
</tr>
</tbody>
</table>

Relationship between income inequality and material deprivation and multidimensional poverty

• We also examined the link between the way a country's most deprived individuals experience disadvantage across multiple dimensions of life and its level of income inequality.

• By expanding the definition of disadvantage beyond income poverty, we sought to overcome some of the criticisms that might be levelled at a mechanical link between strictly income-based measures of poverty and inequality.

• We used three measures of material deprivation and multidimensional poverty, and focused our analysis on European countries.

• The main findings are that broader multidimensional poverty measures are also positively linked to income inequality, but (over a short period) changes in them are not.

What drives the relationship between inequality and poverty – review of mechanisms

- Social aspects: Public opinion and shifts in cultural and social norms – underestimating inequality/perceptions of reasons for ‘success’ and ‘failure’
- Spatial aspects of inequality and poverty – segregation/public expenditure and investment
- Political aspects: the relationship between riches and access to political power and decision making, political representation, legal frameworks and voting
- Crime and the legal system: crime, punishment and unequal access to justice
Public opinion and shifts in cultural and social norms

- Standard models predict that an increase in inequality will lead to an increase in demand for redistribution and as a result inequality and poverty will fall (Meltzer and Richard, 1981). However, empirical evidence is mixed. Why?
  - Current income alone doesn’t shape individuals’ redistributive preferences – expectations of upward mobility.
  - Evidence shows that people underestimate the level of inequality and overestimate the level of social mobility. This is important because there is a positive (negative) correlation between people’s perceived level of inequality (social mobility) and the demand for redistribution.
  - People’s knowledge of inequality, the tax and benefit system and redistribution is limited (Orton and Rowlingson, 2007)
  - ‘Failure attribution argument’ – redistributive preferences are influenced by beliefs on why individuals are poor or rich (hard work/lazy/luck/etc). Some evidence that these beliefs are malleable.
  - High levels of inequality can become ‘normalised’.
Political economy

• Rise of rich and powerful elite:
  ➢ Influence government policy (opportunity hoarding and the role of donors to political campaigns and political parties) (Stiglitz, 2012);
  ➢ Lower income individuals withdraw from the voting booths;
  ➢ Political parties focus on policies that favour the voting electorate (median voter has higher than median income) who are less likely to support redistributive (or ‘pre-distributive’) policies than the population; can generate political instability as disenfranchised members of the population can become attracted to populist parties and candidates (Bonica, McCarty, Poole, and Rosenthal, 2013; Gilens and Page, 2014)

• Growing recognition of the role of tax havens in perpetuating inequality and reducing the potential for governments to tackle inequality due to their impact on government revenues.
  ➢ Due to the role that policy and legal rules play in allowing the development of these havens, some legal scholars have argued that inequality is ‘more a question of law then economics’ (Hsu, 2015).
Spatial aspects of inequality and poverty

• Research examining the geography of income, poverty and wealth has consistently shown an unequal distribution within countries and some evidence shows an increase in concentration.

• Segregation of rich and poor can be important as it can alter people’s perceptions and influence their preferences for redistribution.

• Greater spatial inequality can lead to calls for greater devolution with greater freedom for regions to raise revenue and have control over local spending decisions, but there is a danger that spatial inequalities will increase further due to differences in the ability to raise income - tax raising powers are often negatively related to need.
Crime, the legal system and punitive sanctions

• Economic determinants of criminal activity – an increase in inequality will lead to an increase in crimes particularly those that have the potential for economic gain (those drawn into committing such crimes have the lowest opportunity costs) (Becker, 1968)

• But... crime rates have fallen in many countries including those with high and rising inequality. Criminologists – while inequality influences criminal behaviour at the margin, the long run downward trend is driven by a range of stronger influences (Very long run: Tonry (2014) – ‘civilising process’; From 1990s: improvements in technology/demographic change/DNA/CCTV/even lead)

• However, what we do see in many high inequality countries is an increase in punitive preferences:
  ➢ Despite falling crime rates, incarceration rates and prison populations have increased dramatically in a number of countries
  ➢ Trend towards tougher sentencing policies and punishment rather than rehabilitation

• Unequal access to justice, unequal sentencing, discrimination, a rich and powerful elite shaping legal policy, funding for legal aid and influencing sentencing
Summary

- In recent times there has been a move towards addressing poverty and inequality as a joint issue (World Bank twin goals; Oxfam Even it Up; UN sustainable development goals) but the relationship between the two is not well understood. In this programme of research we sought to address this evidence gap.

- We observe that income inequality and income poverty trends have followed similar trends in many countries and find a positive correlation between income inequality and income poverty (levels and change), material deprivation and multidimensional poverty (levels). It seems unlikely that this is purely due to the way we measure the two phenomena.

- We think it is doubtful that one factor is behind this co-relationship and have started to explore potential mechanisms which could drive this relationship: social, spatial, political, economic, dynamics and crime.

- While still more needs to be done, the evidence gathered so far supports the view that to reduce poverty it is also necessary to tackle inequality.
Resources:

Project website *Improving the Evidence Base for Understanding the Links between Inequalities and Poverty* - research programme funded by the Joseph Rowntree Foundation (project background and working papers)  
http://sticerd.lse.ac.uk/case/_new/research/Inequalities_and_Poverty.asp

Project team: John Hills, Tania Burchardt, Eleni Karagiannaki, Polly Vizard, Lin Yang, Magali Duque, Irene Bucelli

*Double Trouble* (McKnight, Duque and Rucci) report for Oxfam GB  