The Relationship between Inequality and Poverty: mechanisms and policy options

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Understanding the relationship between poverty and inequality

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Motivation

• Well documented upward trend in inequality in high and middle income countries since 1970s; although trends are not uniform across countries

• Growing concern about 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 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
CASE research programme

• Joseph Rowntree Foundation funded a three year programme of research which is part of a wider partnership with the LSE’s International Inequalities Institute – *Improving the evidence base for understanding the links between inequalities and poverty*

• Oxfam funded a rapid *Review of the evidence on the relationship between economic inequality and poverty*
Approach

• Examining the conceptual basis

• Documenting measurement issues

• Extending the empirical evidence base

• Understanding the mechanisms

• Exploring potential policy responses
Measurement issues

- Measures of income inequality and poverty are summary statistics calculated from the same distribution (household income), therefore we would expect these measures will be linked in a ‘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 not what we observe.

- We are interested in identifying what mechanisms underlie distributions of income (eg) where there is high inequality/poverty versus low inequality/poverty.
UK income distribution 2014/15

Median income £473 pw

60 per cent of median £284 pw

Mean income £581 pw

5.3 million individuals with income above £1,000 per week

Equivalised net household income (in £10 per week bands)
The empirical relationship between inequality and poverty in rich and middle income countries: Evidence from the EU Income and Living Conditions Database

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February 2017
Plan of the presentation

Using comparative distributional statistics from the Eurostat Income and Living Conditions database I will present evidence on:

(1) the extent to which higher levels of inequality are associated with higher levels of poverty and

(2) whether increasing levels of income inequality across a number of European countries have been associated with increasing poverty.
Key findings

• Levels of inequality and poverty are highly correlated

• This correlation is stronger for inequality measures that summarize the degree of inequality at the bottom of the distribution and stronger when poverty is measured by poverty rates than poverty gaps

• A positive (albeit slightly weaker) correlation is estimated examining the relationship between changes in inequality and changes in the incidence and the depth relative income poverty as well as between changes in inequality and in the incidence of anchored poverty

• Despite the positive correlation between poverty and inequality trends there is substantial degree of heterogeneity across countries in how poverty and inequality evolved over this period: there are countries where inequality and poverty have moved in different directions
I. Differences in the level of inequality and poverty across different European countries in 2014
Levels of income inequality and relative income poverty are strongly correlated

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

\[ r=0.87^{\ast\ast\ast} \]
\[ r=0.95^{\ast\ast\ast} \]
\[ r=0.81^{\ast\ast\ast} \]
\[ r=0.94^{\ast\ast\ast} \]
Levels of income inequality also tend to be highly correlated with the depth of income poverty but the relationship is weaker.
II. Changes in the level of inequality and poverty across European countries in 2005-14
Changes in income inequality are positively correlated with changes in the incidence of relative income poverty.

% change in inequality and relative poverty risk

$r = 0.55^{**}$

$r = 0.74^{***}$

$r = 0.26$

$r = 0.81^{***}$
Changes in income inequality are also positively correlated with changes in the depth of poverty

% change in inequality and in the poverty gap ratio
A positive (though weaker) correlation is also estimated when the poverty line is anchored at 2005 levels.

% change in inequality and in the anchored poverty risk

\[ r = 0.41^* \]
\[ r = 0.51^{***} \]
\[ r = 0.19 \]
\[ r = 0.55^{**} \]
Conclusions

• Levels of income inequality and poverty display a very strong positive correlation.

• This positive correlation is stronger for inequality measures that summarize the degree of inequality at the bottom of the distribution and stronger when poverty is measured by poverty rates than poverty gaps.

• A positive (albeit slightly weaker) correlation is estimated between changes in inequality and changes in the incidence and the depth relative income poverty as well as changes in the incidence of anchored poverty.

• Despite the positive correlation between poverty and inequality trends, the analysis also identified the varying experiences across countries in how inequality and poverty evolved: there were countries where inequality and poverty trends have moved in different directions.

⇒ policy and institutions matter.
Mechanisms
Mechanisms

• Economic mechanisms
  • Fundamental drivers – distribution of abilities and rates of return – acting through the labour market
  • Resource constraints (Scale/the ‘race’ between the state and the rich)

• Political mechanisms
  • Self interest of rich and powerful elite
  • Reinforcement mechanisms

• Social and cultural mechanisms
  • Values, attitudes and beliefs
  • Fear – punitive (and impoverishing) reactions to crime

Policy plays a key role in ameliorating or exacerbating the extent to which these mechanisms relate inequality to poverty
Economic mechanisms – the labour market

Skill biased technological change, globalisation and weakening of labour market institutions are thought to be the main drivers behind changes in labour market inequality over the last few decades. These changes provide an explanation for both increases in income inequality and poverty risk.

- Demand shift in favour of high skilled workers and a weakening in the wage bargaining power of low skilled workers increases the risk of unemployment, low pay and precarious employment for lower skilled workers and increases wage inequality between skill levels;
- The relationship between individual labour market outcomes (pay/unemployment) and household level outcomes of income inequality and poverty risk is complex;
- Household formation, household composition, cash transfers and direct taxes all play a key role in defining this relationship.
Economic mechanism – the labour market

Individual

Poverty

At risk of poverty rate (% < 60% median income) vs Individual gross annual earnings inequality (Gini)

\[ y = -23.416x + 24.592 \]
\[ R^2 = 0.073 \]

Inequality

Household equivalised income inequality (Gini) vs Individual gross annual earnings inequality (Gini)

\[ y = -0.0718x + 0.3242 \]
\[ R^2 = 0.0067 \]

32 EU-SILC countries (2013) – working age population
Economic mechanism – the labour market

Household

32 EU-SILC countries (2013) – working age population
Economic mechanism – the labour market

Household equivalised

\[ y = 0.8694x - 0.0265 \]

\[ R^2 = 0.7376 \]

Household equivalised income inequality (Gini)

Household annual equivalised earnings inequality (Gini)

32 EU-SILC countries (2013) – working age population
Political mechanisms

• **Rise of rich and powerful elite** (Stiglitz, 2012; Gilens and Page, 2014; Piketty, 2014)
  - Influence government policy (opportunity hoarding and the role of donors to political campaigns and political parties)
  - 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)

• **Electoral systems and their propensity for redistribution** (Iversen and Soskice, 2006)
  - The electoral system in which individuals cast their votes plays a key role in shaping political parties, the composition of governing coalitions, and the likelihood of redistribution
  - Centre-right governments tend to dominate in majoritarian systems whereas centre-left governments tend to dominate in PR systems

• “**Winner-take-all politics into loser-take-all poverty and inequality**” (Hacker and Pierson, 2010)
Social and Cultural mechanisms

• Commonly held belief that inequality is too high but people tend to underestimate the true level of inequality – some evidence suggests that this is influenced by various types of segregation (geographical/media/jobs/social networks/schools)

• Political economy models (Meltzer and Richard, 1981) predict that in democracies an increase in inequality will lead to an increase in redistribution, but the literature shows that this prediction doesn’t always hold due to a number of factors shaping individuals redistributive preferences:
  • Own income
  • Expectations of upward/downward mobility
  • Values and beliefs (why some people are poor/rich)
  • Under-estimate of the level of inequality and overestimates of social mobility
  • Beliefs on the effectiveness/impact of certain policies (eg social security and work incentives)
  • Persistently high inequality can influence social norms

• Increases in income inequality correlated with increases in public punitiveness (Côté-Lussier, 2016) and rates of incarceration. “Those with no capital get the punishment” (Sim, 2009)
Summary

• **Measurement:** The statistical measures we commonly use to assess levels of inequality and poverty give rise to correlations between these two concepts;

• **Empirical evidence:** The positive correlation between income poverty and inequality is stronger for inequality measures that summarise the degree of inequality at the bottom of the distribution, and stronger for headcount measures than poverty gaps;

• **Mechanisms:** The literature identifies a number of mechanisms which help to explain the shape of the income distribution and why increases in inequality can lead to increases in poverty;

• **Policy:** The evidence suggests that tackling poverty without addressing inequality will be ineffective in the long-run unless the mechanisms that link the two are broken.