Inequality is bad for growth of the poor (but not for that of the rich)

Roy van der Weide and Branko Milanovic
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Does today’s inequality have implications for future income growth?

• Theory offers a variety of channels via which inequality might affect future growth, some positive and some negative:
  
  • **Positive**: “saving argument” (high income inequality is justified by the need to have the rich who save their income, invest it and thereby help growth); “incentive argument” (more unequal societies are believed to provide stronger incentives that motivate people to work hard in order to succeed)
  
  • **Negative**: “imperfect credit markets” (where poor individuals might find it harder to finance their education; more unequal societies may then be more prone to wasting human resources); or “inequality of opportunity” more generally

• Empirical studies, which took off in the 1990s, too produced mixed results

• The relationship between inequality and future growth was found to range from positive, to neutral, to negative
Unpacking inequality offered a break-through

• The idea is that inequality is the result of many different factors, some may be good while others may be bad for growth

• Voitchovsky (2005) investigates the effect of inequality among the poor and inequality among the rich on GDP per capita growth
  • She found that inequality among the rich helps growth and inequality among the poor hampers it

• Marrero and Rodriguez (2012, 2013) decompose inequality into “inequality of opportunity” (IOP) and “inequality of efforts” (IOE)
  • They found that IOP is detrimental to growth while IOE tends to help growth
  • Ferreira et al. (2014) were unable to reproduce this finding using cross-country data
Unpacking growth: The logical next step

• Remarkably, all of the above mentioned studies focus exclusively on growth of average income (or GDP per capita)

• This seems rather paradoxical:
  • Inequality measures how incomes at a given point in time are distributed across the population
  • Yet when we investigate inequality’s relationship to future growth we appear only interested in how it might affect growth of the average
  • One would think that we would specifically be interested in how individuals at different steps of the socio-economic ladder would fare in societies with different levels of inequality

• In an application to the United States, Van der Weide and Milanovic (2014) investigate how today’s state-level inequality affects state-wide income growth among the poor, middle class and the rich over the next 10 years
Data and econometric approach

• U.S. microcensus conducted at ten-year intervals, from 1960 to 2010
• Very large sample: 1% (1960-70 and 2010) or 5% (1980-2000) of all households from each state
• Microcensus is representative at state level
• Individuals are ranked by their household per capita income
• Income = wages + property income + cash social transfers + self-employment income + other sources (alimony etc.) = gross income (excludes taxes but includes govt transfers)
• We build state-level panel data by computing for each state and time-period separately: (a) income inequality; (b) selected percentiles of the income distribution; (c) selected controls
• Our dependent variable is growth in per capita income at, say, the 25th percentile in Arizona over the period 1970-80
• The key independent variable is inequality in Arizona at the start of the growth spell (i.e. 1970)
• Control variables (all at state level) include: demographics, education levels, labour force participation, and regional (West, East, South West, South) dummies
US growth incidence curves 1960-70 and 1990-2000: from pro-poor to pro-rich

Population-weighted state averages
State inequality from 1960 to 2010
## Inequality and growth rate at different percentiles of income distribution (state-level data, 1950-2010)

<table>
<thead>
<tr>
<th></th>
<th>5th</th>
<th>10th</th>
<th>25th</th>
<th>median</th>
<th>75th</th>
<th>90th</th>
<th>95th</th>
<th>99th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>-0.25**</td>
<td>-0.24**</td>
<td>-0.13**</td>
<td>-0.03</td>
<td>+0.03</td>
<td>+0.05**</td>
<td>+0.06**</td>
<td>+0.07**</td>
</tr>
<tr>
<td>Bottom</td>
<td>-0.04**</td>
<td>-0.02*</td>
<td>-0.03</td>
<td>+0.03</td>
<td>+0.05</td>
<td>+0.06*</td>
<td>+0.08**</td>
<td>+0.07**</td>
</tr>
<tr>
<td>Top</td>
<td>-0.12</td>
<td>-0.16*</td>
<td>-0.14*</td>
<td>-0.08*</td>
<td>-0.01</td>
<td>+0.00</td>
<td>-0.00</td>
<td>+0.02</td>
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</tbody>
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Dep. variable: growth rate at a given percentile of income distribution
Controlling for demography, education level, labor force participation, 4 geographical regions (n=245; R² between 0.75 and 0.89)
### Summary of the results

<table>
<thead>
<tr>
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<th>Pooled regressions (regional FE)</th>
<th>GMM estimation</th>
<th>State fixed effects</th>
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<tbody>
<tr>
<td></td>
<td>Bottom growth</td>
<td>Top growth</td>
<td>Bottom growth</td>
</tr>
<tr>
<td><strong>Overall Gini</strong></td>
<td>Negative ≤25</td>
<td>Positive ≥75</td>
<td>Negative ≤25</td>
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<tr>
<td><strong>Bottom Gini</strong></td>
<td>Negative ≤10</td>
<td>Positive ≥90</td>
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</tr>
<tr>
<td><strong>Top Gini</strong></td>
<td>Negative ≤50</td>
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<td>Negative ≤50</td>
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</tbody>
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How can these results be explained?

• Inequality *today* is bad for the *future* growth rate of the poor (and good for the future growth rate of the rich)

• We do not think that these findings are mechanical
  • Anonymous growth may be subject to a spurious initial inequality effect, but this effect operates in the opposite direction

• While we are not able to identify the channels via which inequality impacts on growth, by disaggregating the inequality-growth relationship we are able to narrow down the potential channels
“Social separatism”

• A possibility which seems to us most compelling is that the rich prefer to opt out of publicly-funded and publicly-provided education, health and other services, as they increasingly consume them privately.

• The public goods that the rich are not interested to invest in are presumably crucial for income growth of the poor.

• It is a model of society sketched by Bénabou (2000) where high inequality, combined with credit constraints and influence of the rich on the political process, results in a steady-state of low government spending and persistent high inequality.

• It is also consistent with the recent results by Chetty et al. (2014), that show that locations in the U.S. with lower income inequality display more inter-generational mobility.
What are the political implications?

• A curbed enthusiasm among the rich to reduce inequality?
  • An example from the U.S. is the vastly different preferences of the rich when it comes to the cuts in Medicare, education and infrastructure spending as a way to reduce federal deficit; according to survey data reported by Page, Bartels and Seawright (2011), 58% of the rich are in favor of such cuts versus only 21% among the rest of the population.

• As the political process gets more controlled by the rich (empirical studies in the US), lower likelihood of a change of policies
  • Why would the rich support a policy that would slow their future income growth and thereby reduce their share of the pie?
  • Curb the influence of money in politics ...
Further work under way

• Investigate the channels via which “social separatism” operates
  • Empirically study the effect of initial inequality on a variety of public school indicators, minimum wage, etc.

• Decompose inequality into “inequality of opportunity” (IOP) and “inequality of effort” (IOE): Is IOP bad for all (and IOE good for all)?
  • Where we unpack both growth and IOP

• Apply the same approach to data from emerging and developing countries (i.e. India, Brazil and Mexico)