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

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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

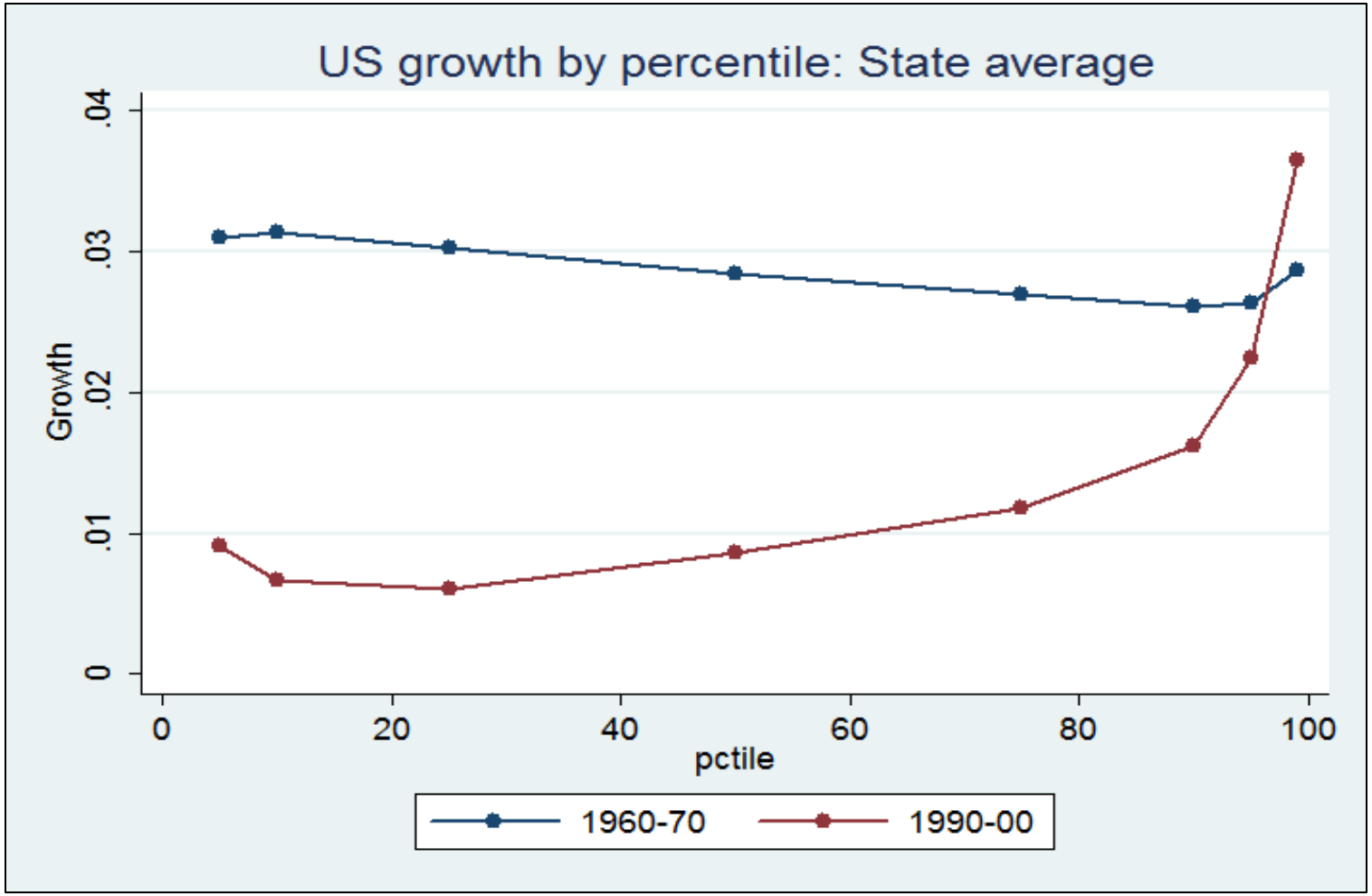
Unpacking growth: The logical next step

- 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

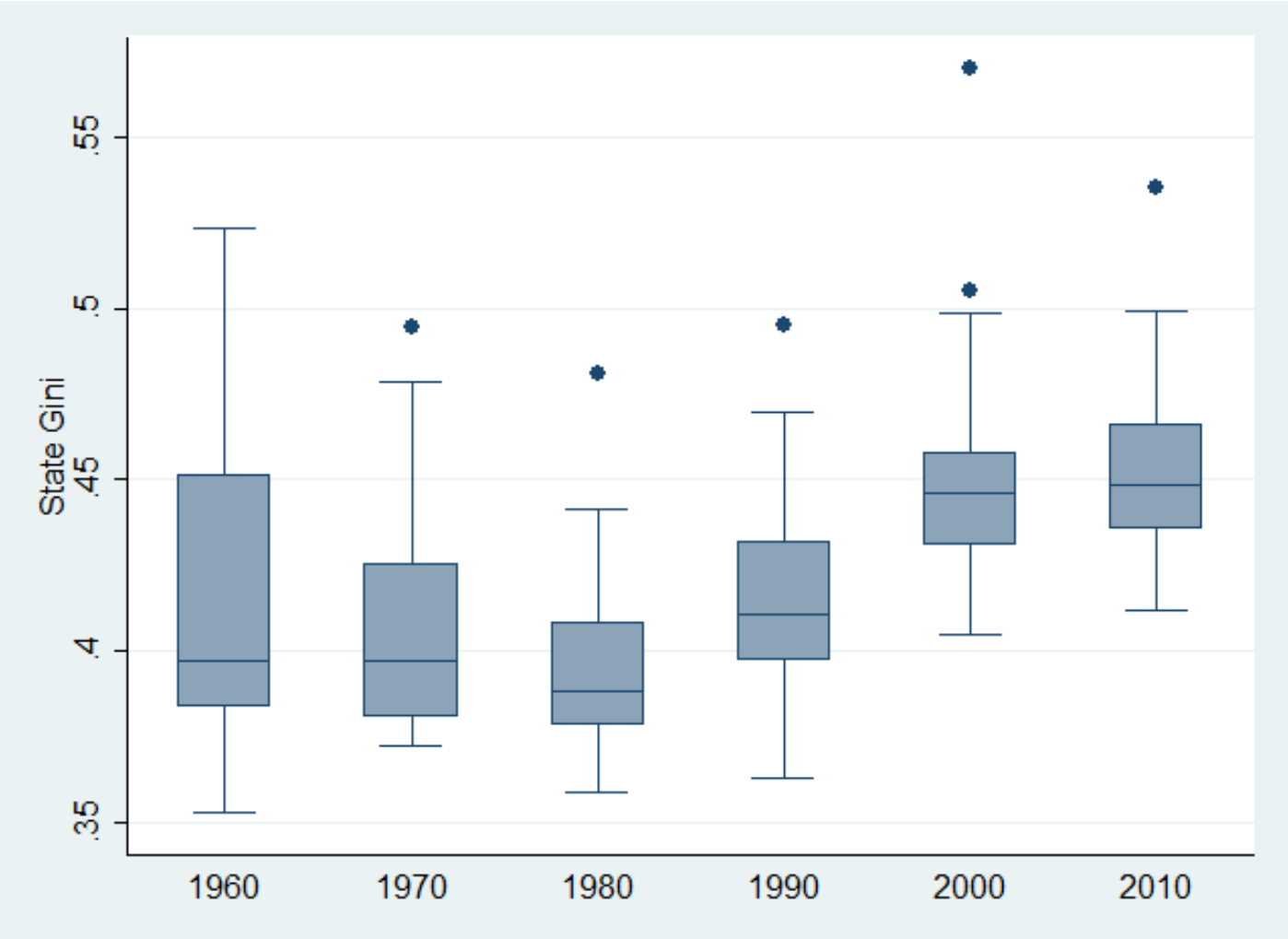
- U.S. microcensus conducted at ten-year intervals, from 1960 to 2010
- Very large sample: 1% (1960-70 and 2010) or 5% (1980-2000) of all households from each state
- Microcensus is representative at state level
- Individuals are ranked by their household per capita income
- Income = wages + property 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 25^{th} 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)

	5th	10th	25th	median	75th	90th	95th	99th
Overall Gini	-0.25**	-0.24**	-0.13**	-0.03	+0.03	+0.05**	+0.06**	+0.07**
Bottom Gini	-0.04**	-0.02*	-0.03	+0.03	+0.05	+0.06*	+0.08**	+0.07**
Top Gini	-0.12	-0.16*	-0.14*	-0.08*	-0.01	+0.00	-0.00	+0.02

Dep. variable: growth rate at a given percentile of income distribution
Controlling for demography, education level, labor force participation, 4 geographical regions
(n=245; R^2 between 0.75 and 0.89)

Summary of the results

	Pooled regressions (regional FE)		GMM estimation		State fixed effects	
	Bottom growth	Top growth	Bottom growth	Top growth	Bottom growth	Top growth
Overall Gini	Negative ≤25	Positive ≥75	Negative ≤25	Positive ≥75	Negative ≤75	----
Bottom Gini	Negative ≤10	Positive ≥90	---	Positive ≥50	Negative ≤10	----
Top Gini	Negative ≤50	-----	Negative ≤50	---	----	----

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)