

## Comments

(A view from South Asia and Age Effects)



2015 Hitotsubashi-IMF Seminar on Inequality  
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### 1a. Comments on “Inequality in Asia: Trends, Drivers and Policy Implications” by Juzhong Zhuang

Great overview with well-balanced descriptions  
on inequality in Asia

Main drivers of increasing inequality in Asia:

- Technological progress, globalization, and market-oriented reform associated with **falling share of labor income, rising skill premium, rising spatial inequality**
- Underlying is unequal access to opportunity due to **social exclusion**
- Positive feedback between income inequality and **wealth inequality**

One missing element: **Changing demography?**

# 1b. Comments on “Redistribution, Inequality, and Growth” by Jonathan Ostry

Solid quantitative work, simultaneously analyzing the impact of redistributive transfers (+ or insignif.) and inequality (-) on growth

=> Redistribution is pro-growth through direct and indirect (through reduced inequality) routes.

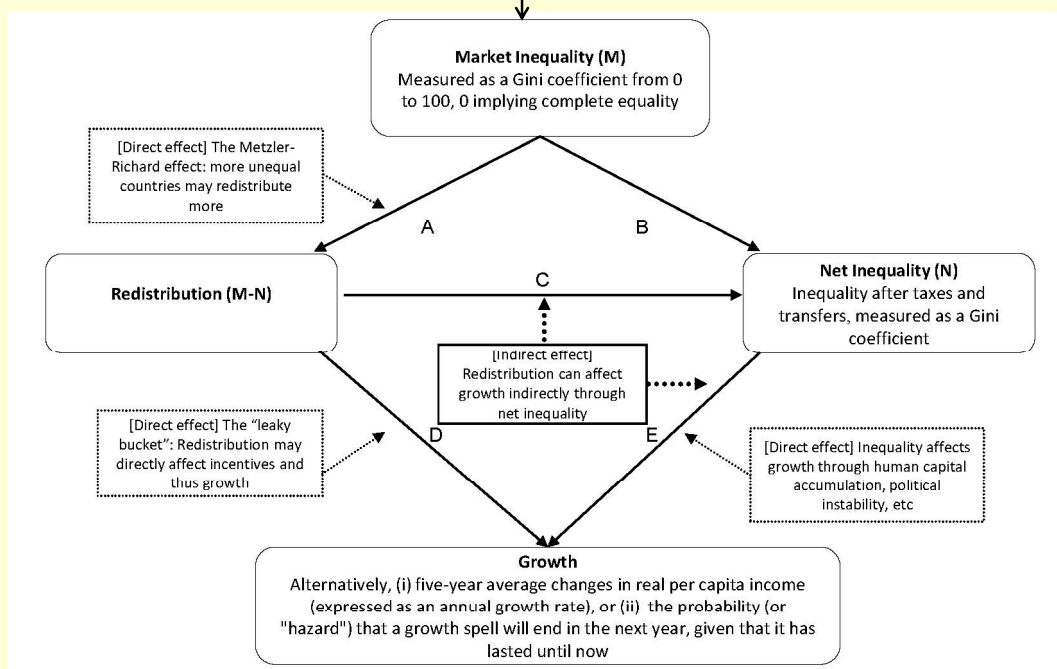
➤ Caution in interpretation: The difference between the market-income inequality and the net income inequality shows the impact of **redistributive tax policies only**.

✓ In low-income developing countries, major **redistributive policies** attempts to reduce the market-income inequality, e.g., taxes on activities with negative externalities paid mostly by the rich; cash transfers to encourage primary education (p.5 of the full paper); asset transfers like land reforms. Such policies are more **important as they reduce inequality in long term**.

✓ More research is needed on the impact of such policies on growth.

More important redistributive policies, which enhance the poor's earning ability

Counterfactual pre-tax inequality if not for such policies



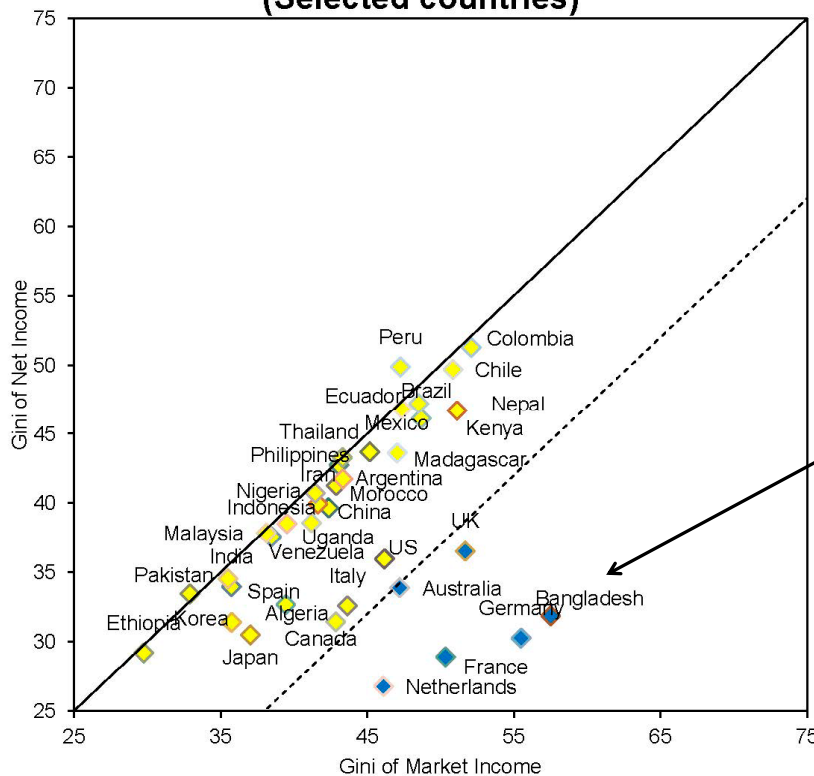
## 1b. Comments on Ostry's presentation (cont'd)

➤ **Data: pre- & post-tax distribution data may be missing or ill-measured for poorer countries?**

- ✓ Data for Bangladesh shown in Figure 7 appears apparently wrong. The country has very little redistributive taxation, similar to India and Pakistan. Probably, the contrast between income and consumption inequality is confused as the contrast between pre-tax and post-tax income inequality?
- ✓ The redistribution in the data captures something else?
- ✓ The most we can say about the impact of redistributive tax policies on growth in low-income developing countries is **“we don't know as there is too little data that is reliable”**?

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The top 25 percent and the bottom 75 percent  
(Selected countries)



**Bangladesh is here!?**

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## 2. Major comments on the two presentations: Demographic factors?

- Asia is ageing rapidly
- Inequality within the cohort (defined by the birth year) is increasing with age, as shocks and skills are being accumulated when people become older  
↓
- Even without changes in inequality within the cohort, overall inequality can increase over time. In Japan, the ageing factor explains a substantial portion of the observed increase in inequality.  
↓
- Comment on Juzhong Zhuang's presentation: If we could see the inequality changes **net of changing demography impacts**, the information would be informative. We can compare net increases in inequality with gross increases in inequality.
- Comment on Jonathan Ostry's presentation: Don't we need **any control for demographic factors** or year fixed effects in regression?
- **But how general is the within-cohort inequality increasing with age in developing countries? If there is any heterogeneity in the age effects in the within-cohort inequality, what does it tell us?**

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## Intertemporal choice and inequality, looking through age effects in within-cohort consumption inequality

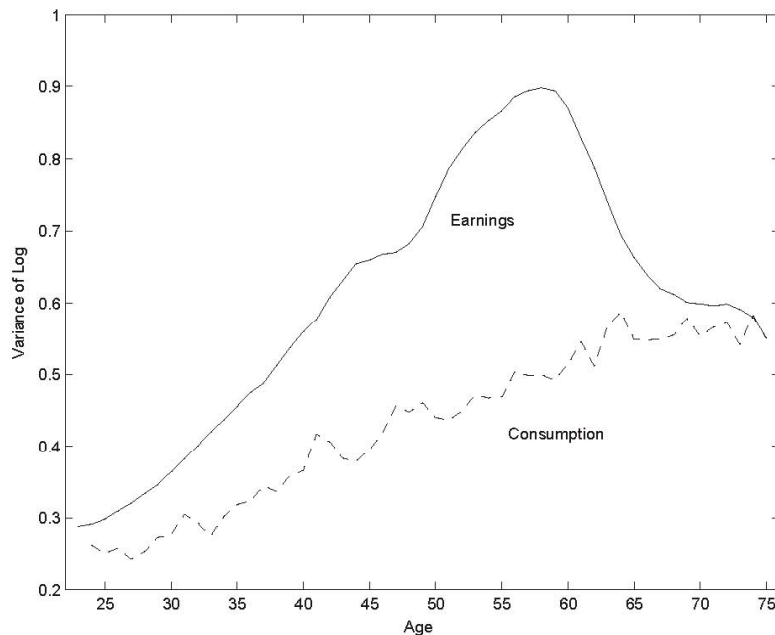
- On-going research with Ethan Ligon (UCB), Alberto Iniguez (U. Tsukuba), and Kyosuke Kurita (Meiji-Gakuin), covering India, Pakistan, Thailand, The Philippines, and Mexico.
- Similar education-contrast is being found for lower-income countries.
- => I show the preliminary results based on Indian NSS microdata of MPCE as repeated cross-section data and examine **age effects of consumption inequality within cohort** and then **compare the age effects pattern across groups**. The reference is: Kurosaki, Takashi "Economic Inequality in South Asia," *Routledge Handbook of South Asian Economics*, edited by Raghbendra Jha, 2011, pp.61-75.
- \* Here the "cohort" is defined by the birth year of the household head.
- \*\* 4 rounds of NSS (1983, 1987/88, 1993/94, 2004/05) are used. The use of 1999/00 with relevant adjustment for the non-comparability is left for further analysis.

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## Age Effects in Within-Cohort Inequality: U.S. (Storesletten et al. 2004 JME)

*K. Storesletten et al. / Journal of Monetary Economics 51 (2004) 609–633*

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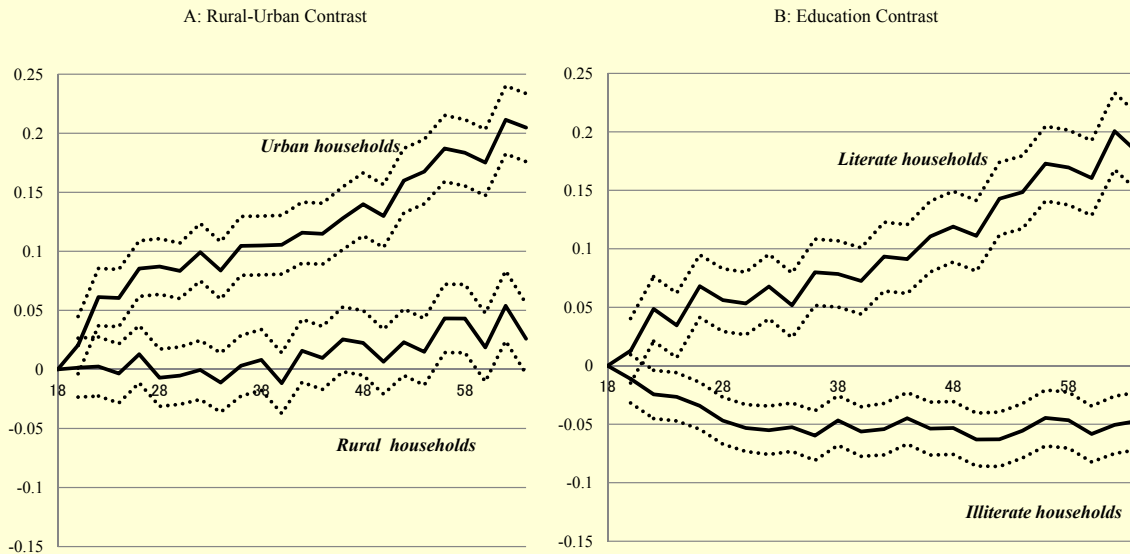
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Fig. 1. The graphs represent the cross-sectional variance of the logarithm of earnings and consumption.

### Increasing age effects found in developed and middle income developing countries:

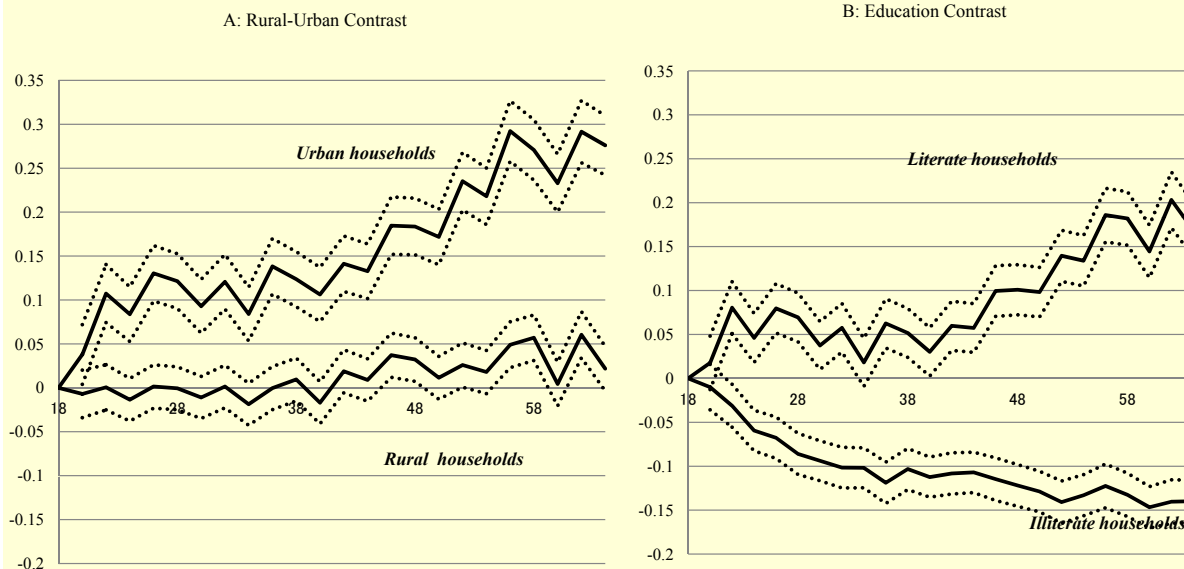
- Consumption inequality increases with age
- Income inequality increases with age (up to retirement age)
- Income inequality is larger than consumption inequality
- Slope of age effect is steeper on income inequality
- The shape is similar regardless of the education level
- Broadly consistent with consumption smoothing (short-term and life-cycle) under permanent income hypothesis

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**Figure 3: Age Effects in Within-Cohort Consumption Inequality, India**

- As in developed countries, urban and literate households show increasing age effects in within-cohort inequality.
- Among rural households, age effects are almost flat. **Among illiterate households, age effects are decreasing!**



**Figure 4: Age Effects (based on micro-data)**

- More statistically-efficient model based on micro-data shows similar results. Therefore, **the decreasing age effects in within-cohort inequality among illiterate households are robust.** (Similar contrasts found in Thailand and Pakistan.)



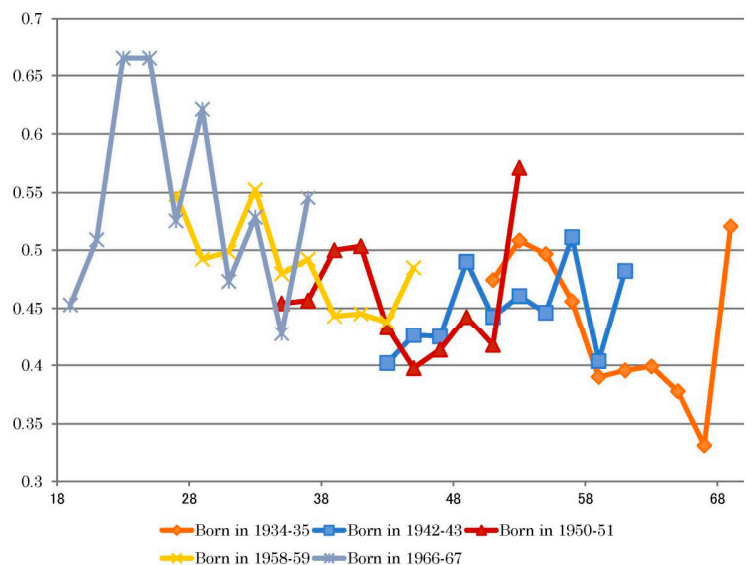
## Why these findings are important?

- “Inequality is decreasing with age” is good? Not necessarily so. It can indicate the inefficiency of intertemporal resource allocation among less educated households, contributing to more poverty!
- From the same NSS microdata, the average MPCE among rural/illiterate households did not show increasing age effects. Thus, rural and illiterate households are left out from dynamic change in Indian economy, trapped in persistent poverty with substantial variability of consumption due to idiosyncratic transient shocks.
- Illiterate households are constrained in intertemporal resource allocation, resulting in an abnormal pattern of decreasing within-cohort inequality across age. In some sense, this is a support to Juzhong Zhuang’s point of social exclusion.
- The stagnating income among low educated and rural households could explain the increasing discontent against the incumbent govt in Indian politics.

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## Appendix: How is the age effect identified from the data?

- Data: Inequality for cohort  $g$  in year  $t$  (Fig.0-1. for Thailand)
- Plot the time series for each  $g$  against age (not survey year)
- For each cohort, the fixed effect adjusts the curve in a parallel way
- Thus the age fixed effects smoothly connects the shape of different cohorts.



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