

# **Econ 133 – Global Inequality and Growth**

## **The World Distribution of Income**

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## Roadmap

- What is global inequality?
- How high is global inequality and how is it evolving?
- Reference for this lecture: Milanovic (2013) (See also Milanovic's book, 2016)

# 1 What is global inequality?

- Most policies are at national level
- Political life is also at national level
- But world is getting more integrated
- We care about inequality because we evaluate ourselves relatively to others

## 1.1 Concepts of global inequality

- Inequality of average income between countries
- Inequality of average income between countries, weighted by population
- Inequality of income between world individuals

## 1.2 Key measurement challenge: PPPs

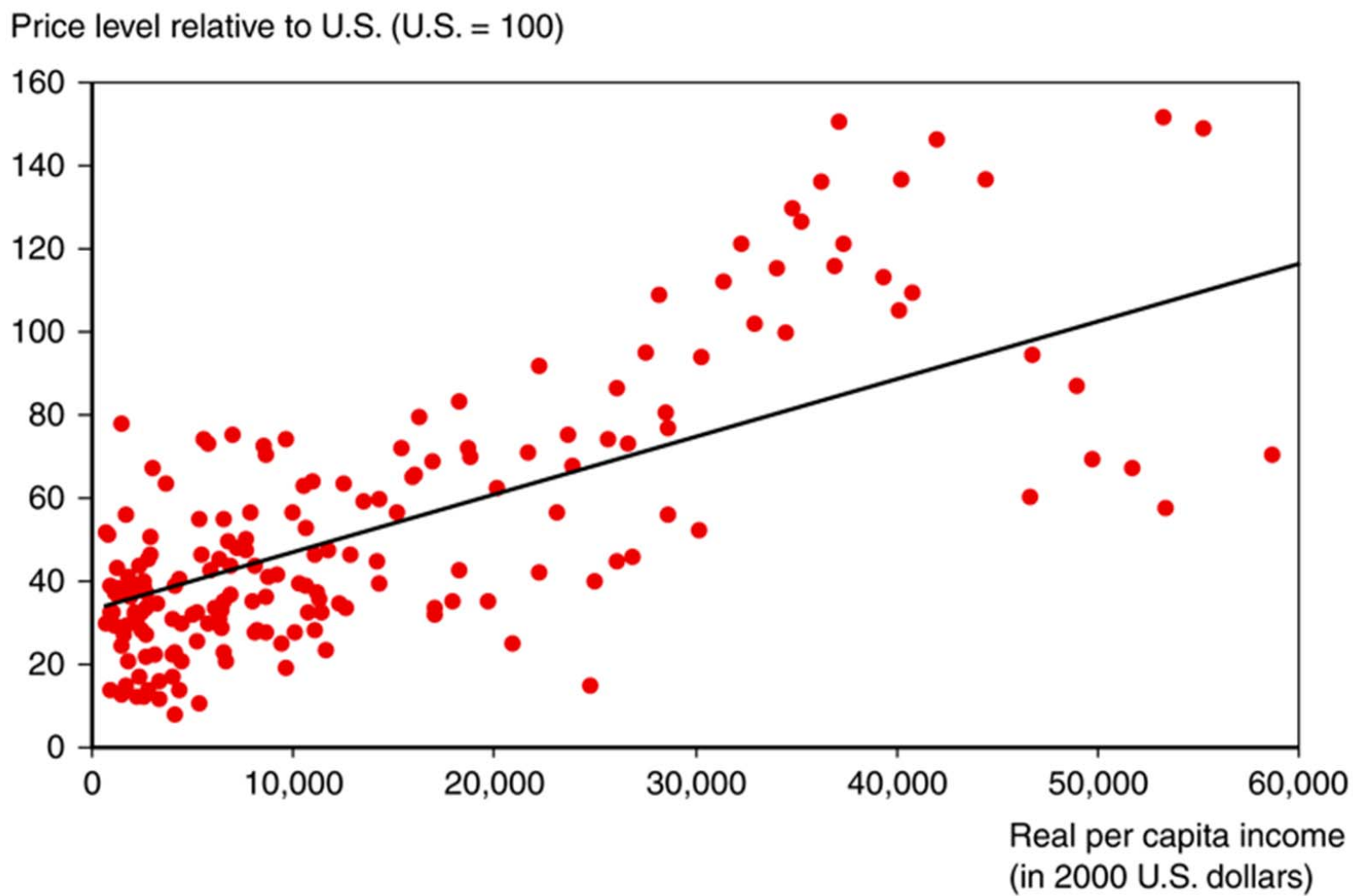
- Law of one price: same good should cost the same in different countries once the price is converted into the same currency
- That is:  $p_i = ep_i^*$ , where  $p_i$  is the domestic price of good  $i$
- $p_i^*$  is the foreign price of good  $i$
- And  $e$  is the exchange rate (domestic/foreign currency).

- The reason why the LOP should hold is goods market arbitrage
- Purchasing Power Parity (PPP) is the application of the law of one price to a basket of goods
- PPP postulates that the price of the same basket of goods should be the same once converted into the same currency.
- That is,  $P = eP^*$ , where  $P$  is the domestic price index and  $P^*$  the foreign price index

- One way to rewrite absolute PPP is

$$\frac{eP^*}{P} = 1 \quad (1)$$

- The left hand side of this equation is the real exchange rate (i.e. the nominal exchange rate adjusted by the price levels).
- Absolute PPP therefore requires that the real exchange rate is equal to one.
- In practice there are permanent deviations from absolute PPP



Source: Penn World Table, version 6.3.



- Due to general deviations from PPP it does not make sense to use market exchange rates to compare real income across countries.
- The IMF and various other organizations therefore report “PPP exchange rates” .
- These exchange rates are simply an estimate of what the nominal exchange rate would have to be so that absolute PPP holds.
- But many uncertainties involved in this computation

## 2 Level and trend of global inequality

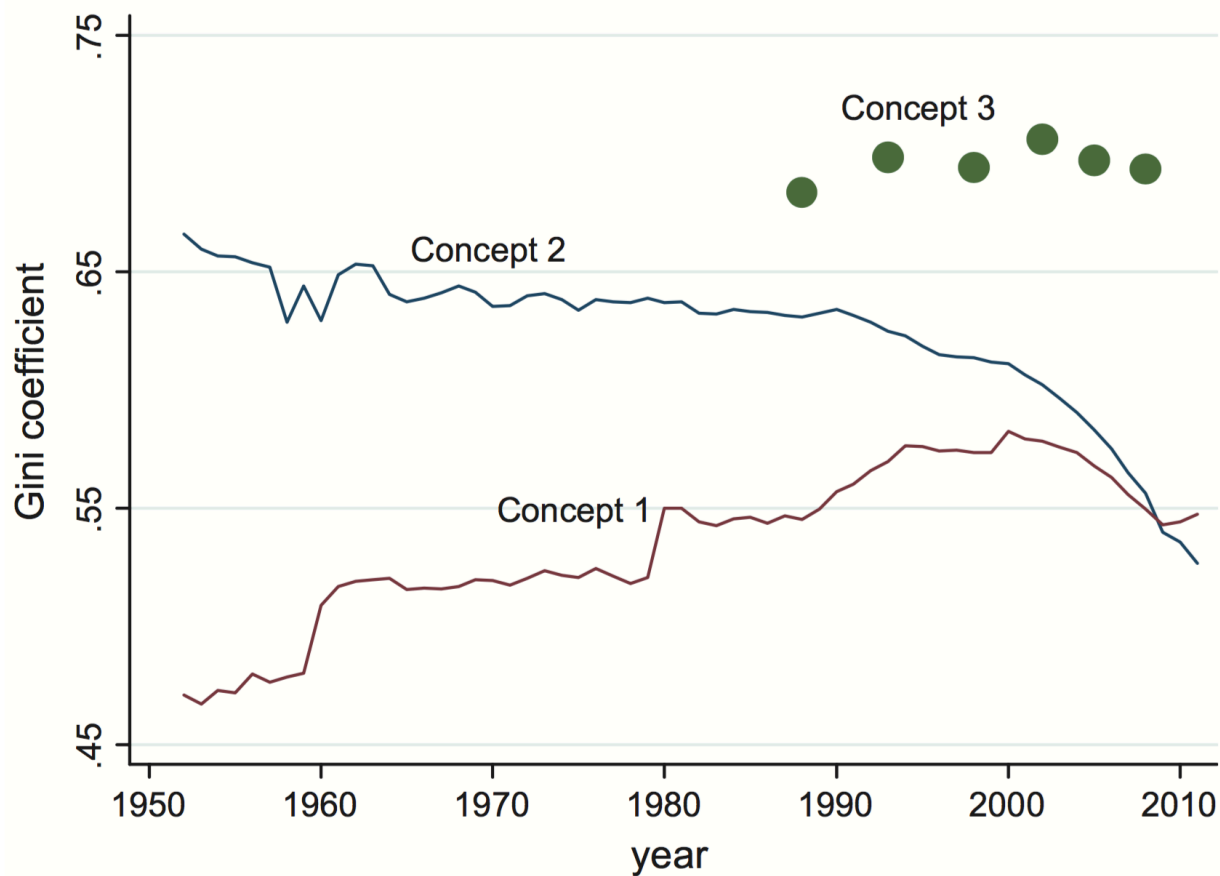
### 2.1 How high is global inequality

- At world level: half of income goes to top 8%, half to bottom 92%
- Higher than within-country inequality

## 2.2 How is global inequality evolving

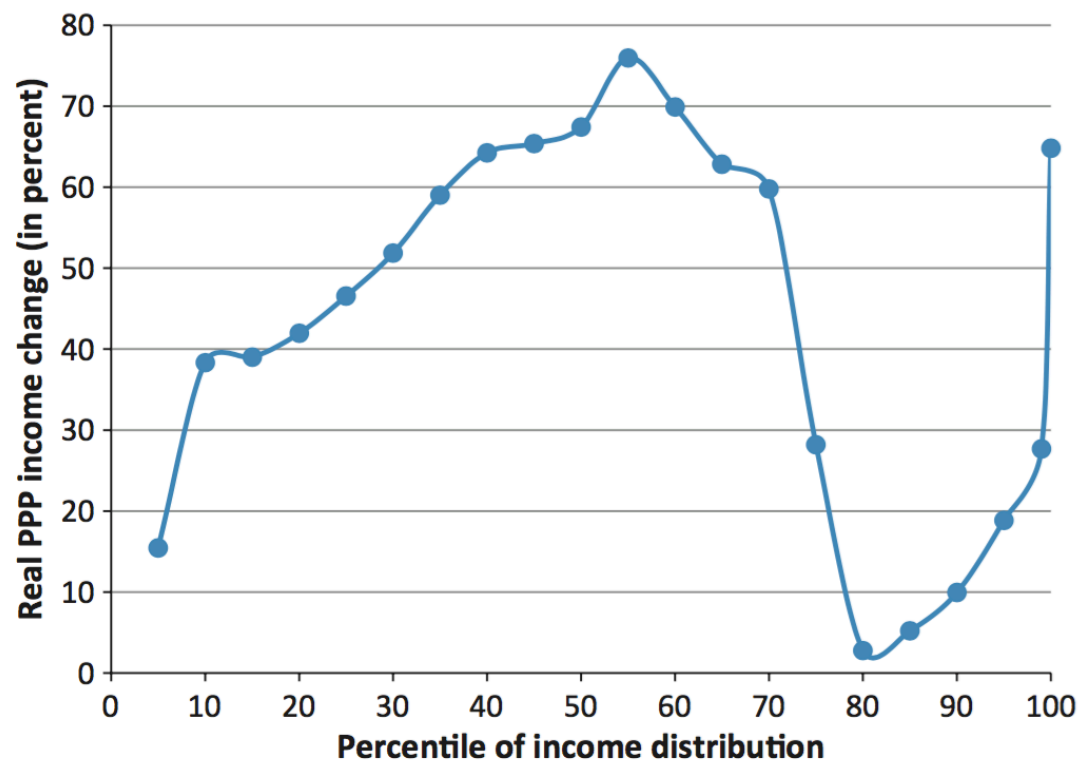
- Convergence in average income across countries
- Rising inequality within countries
- Both trends approximately offset each other so that global individual inequality is relatively constant

**Figure 2.** International and global inequality, 1952–2011: ‘the mother of all inequality disputes’.



Source: Milanovic (2013)

**Figure 4.** Change in real income between 1988 and 2008 at various percentiles of global income distribution (calculated in 2005 international dollars).

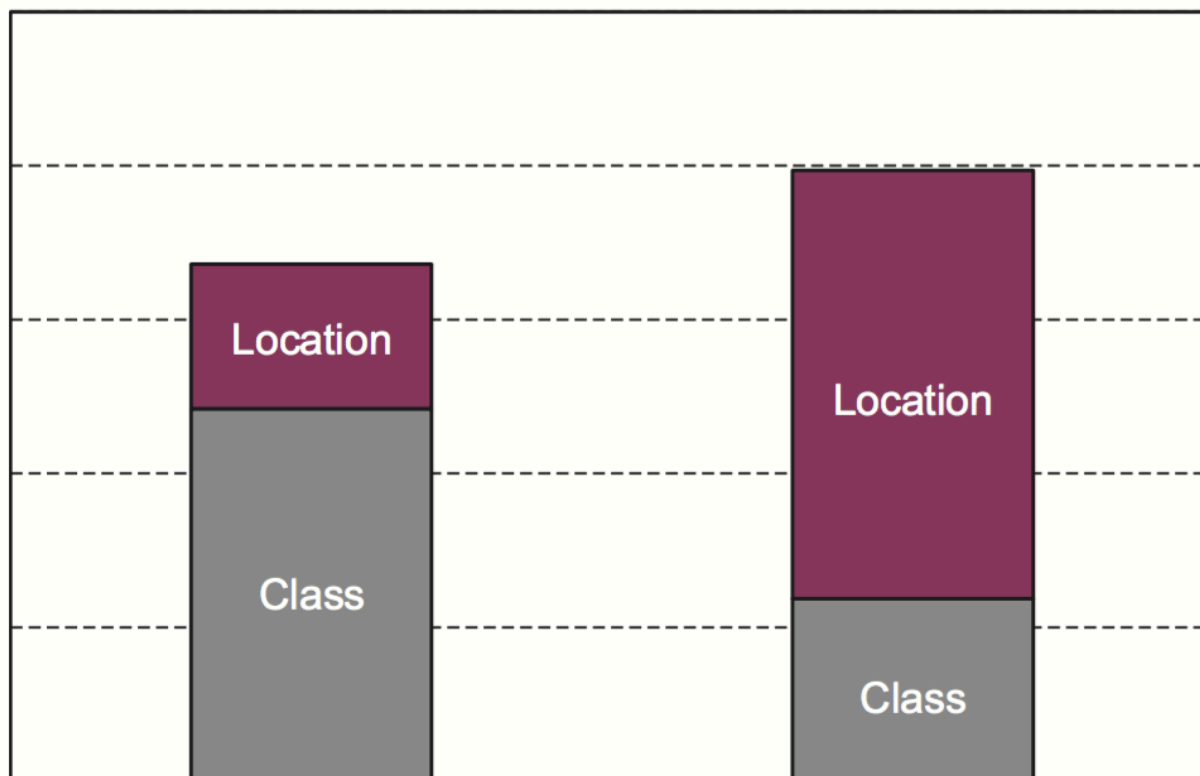


Source: Milanovic (2013)

## 2.3 Global inequality in the long run

- Estimates by Bourguignon and Morrisson (2002) as far back as early 19th century
- Global inequality increased from beginning of 19th century to World War 2 (class inequality + Industrial Revolution)
- After that: stabilized or at least grew more slowly

**Figure 6.** A non-Marxian world: level and composition of global inequality in the 19<sup>th</sup> century and around 2000 (measured by the Theil index).



Source: Milanovic (2013)

### 3 Summary

- Global inequality is due to both within-country and across-country inequality
- Global inequality is high and roughly stable
- In the past within-country inequalities mattered more than cross-country inequalities; today cross-country inequalities matter more; but the future may look like the past