


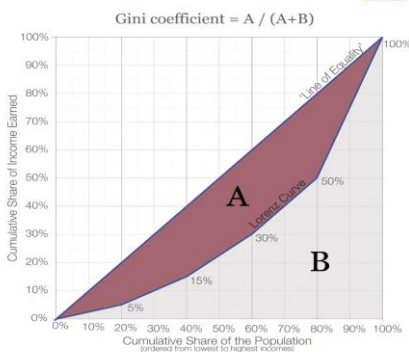
How about Inequality (Ginis and Lorenz): World and Brazil?

* 7.2

Recap: Gini Index and Lorenz Curve

Graph from the Lorenz Curve $L(P)$

Visual Explanation of the Gini Coefficient 



Analytical Interpretation

Once there are $\frac{N(N-1)}{2}$ distinct pairs of people in the sample, Gini's formula is:

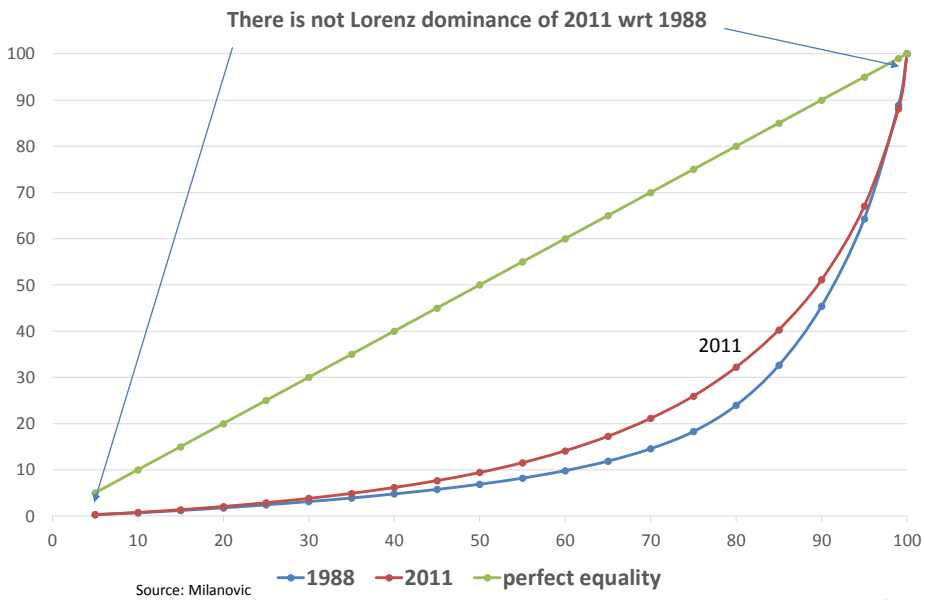
$$\gamma = \frac{1}{\mu N(N-1)} \sum_{i>j} \sum_j |x_i - x_j|$$

Aggregated Level Analysis of Welfare Function (BES) based on the Gini (δ)

Sen (1976): $\mu (1 - \delta)$

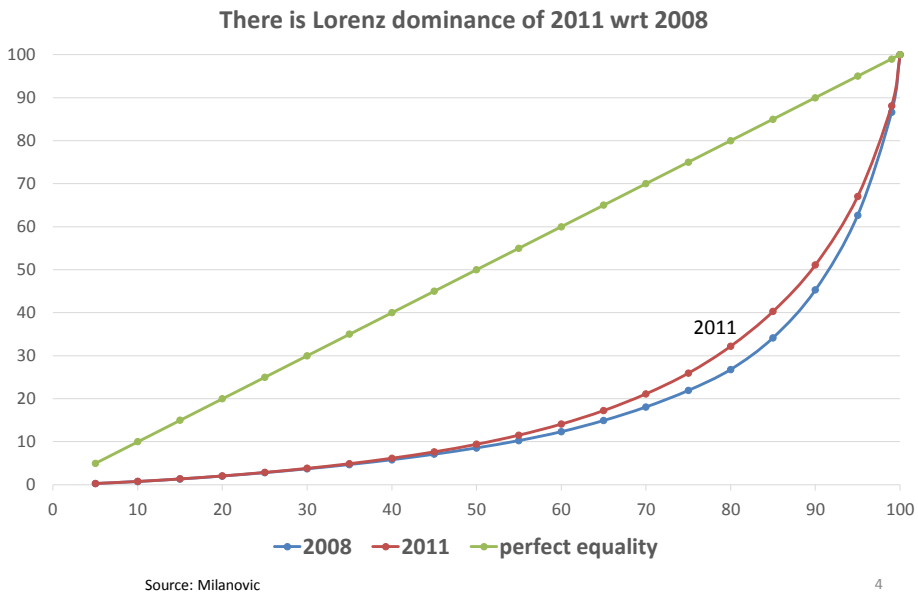
Graff (1981): $\mu (1 - \delta)^\rho$, where $\rho \in [0, 1]$.

Lorenz curves 1988 and 2011 - Global



3

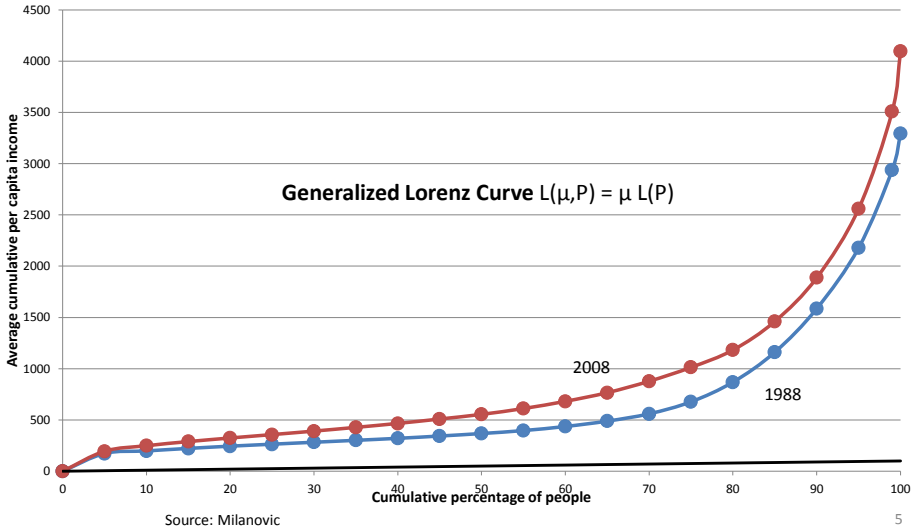
Lorenz curves 2008 and 2011 - Global



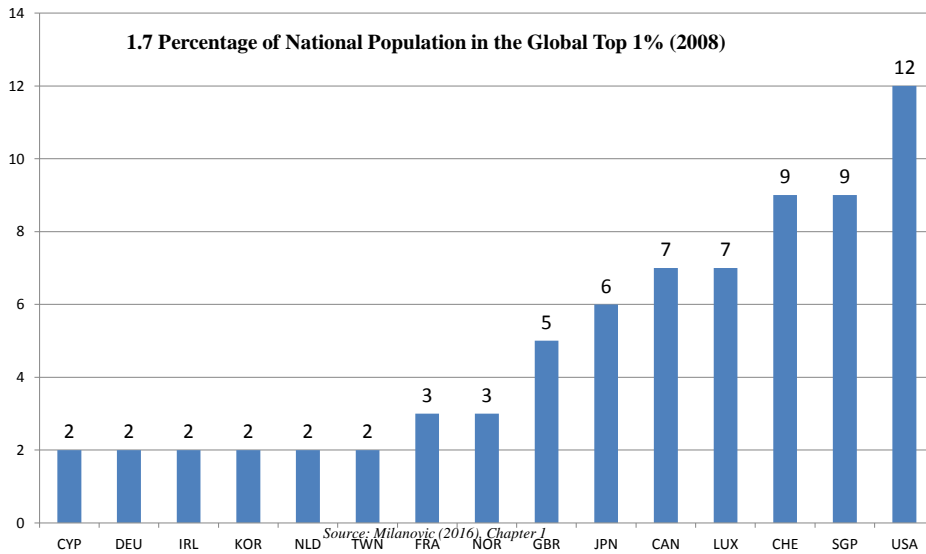
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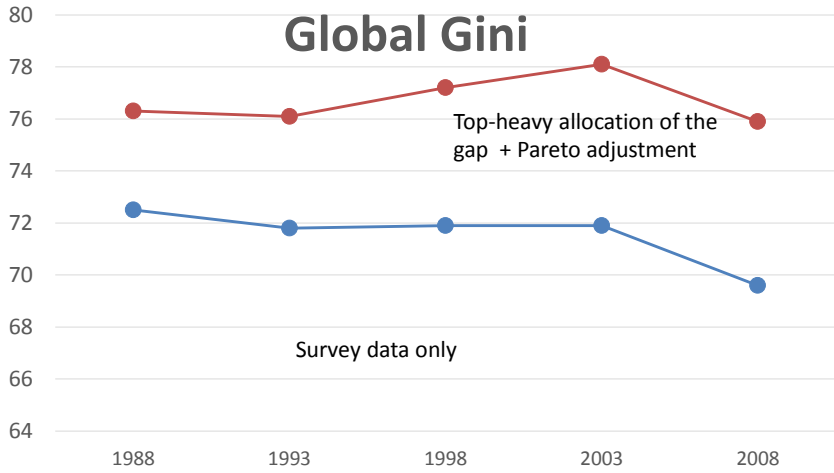
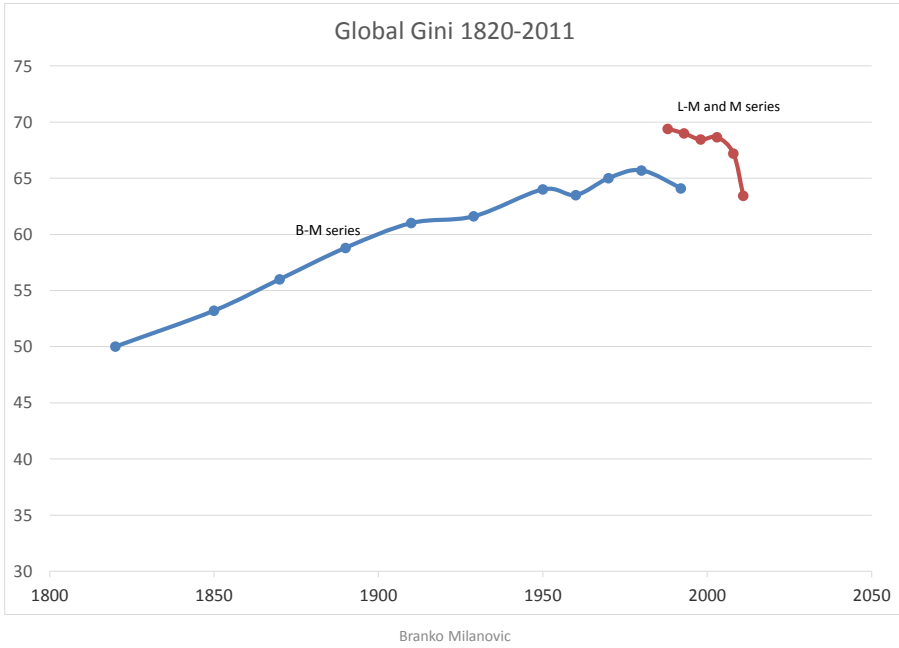
Generalized Lorenz curves 1988 and 2008 - Global

There is generalized Lorenz dominance of 2008 wrt 1988



Countries with more than 1% of their population in top global percentile (above \$PPP 72,000 per capita in 2008 prices)



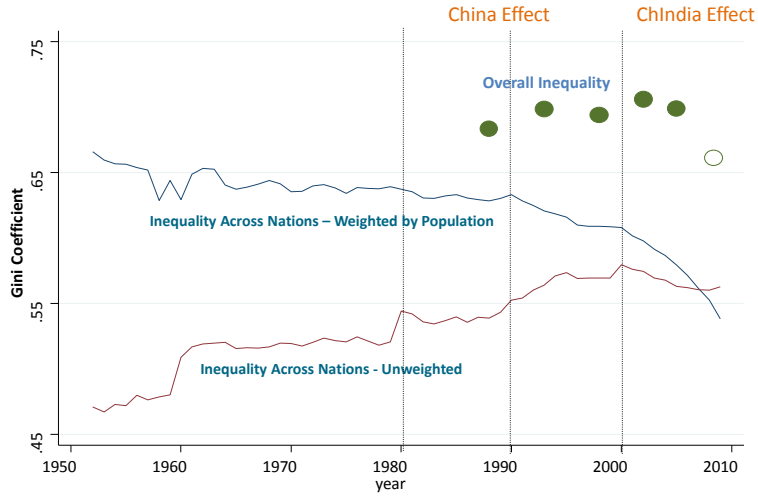


With full adjustment (allocation to the top 10% + Pareto) Gini decline **almost vanishes**

Summary_data.xls

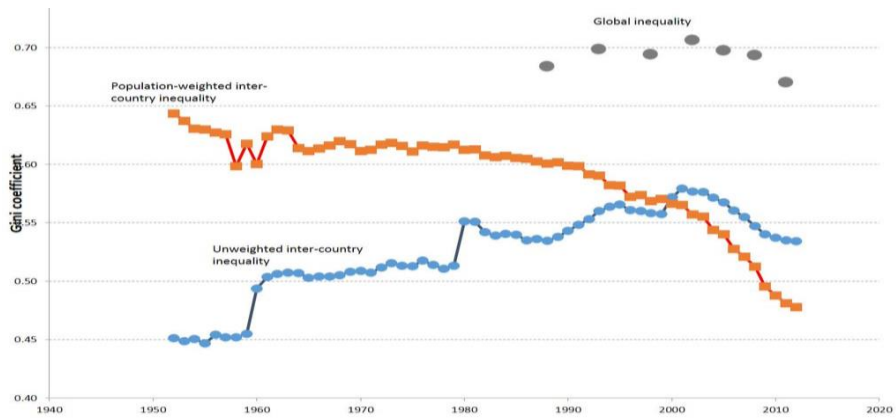
Branko Milanovic

Evolution of World Income Inequality Different Concepts



Source: Milanovic (2011)

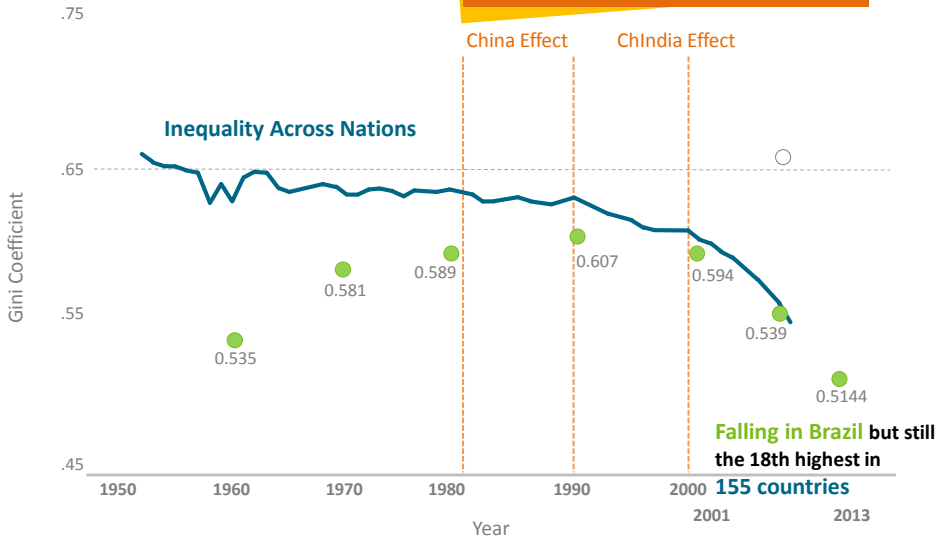
Three concepts of inter-national income inequality, 1952-2013



Source: Milanovic (2016), Chapter 1

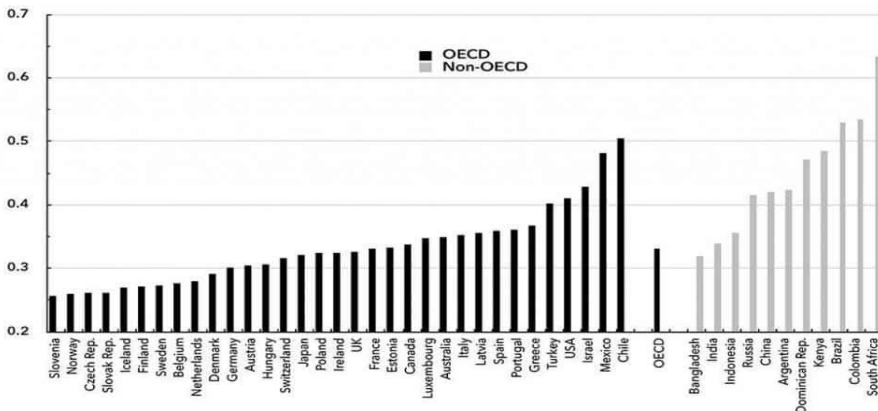
Brazil is a small World

Brazilian Per capita GDP PPP has grown 3.5% against 3.6% of the world between 2002 e 2012



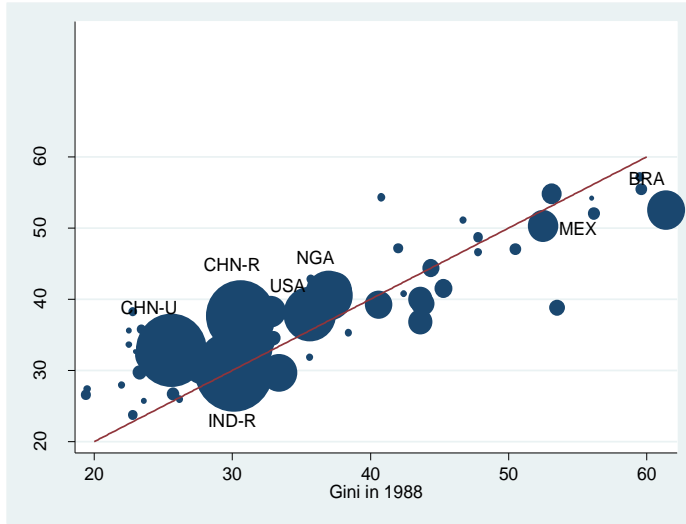
Source: Milanovic (2011) and Neri (2011)

Gini Coefficients for Selected Countries



Source: Organization for Economic Cooperation and Development (OECD), Income Distribution Database.

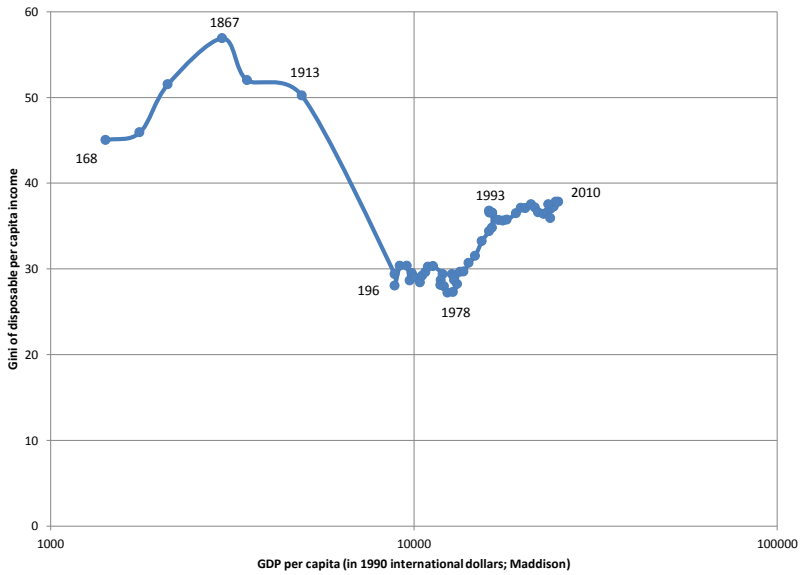
Ginis in 1988 and 2011 (population-weighted countries)



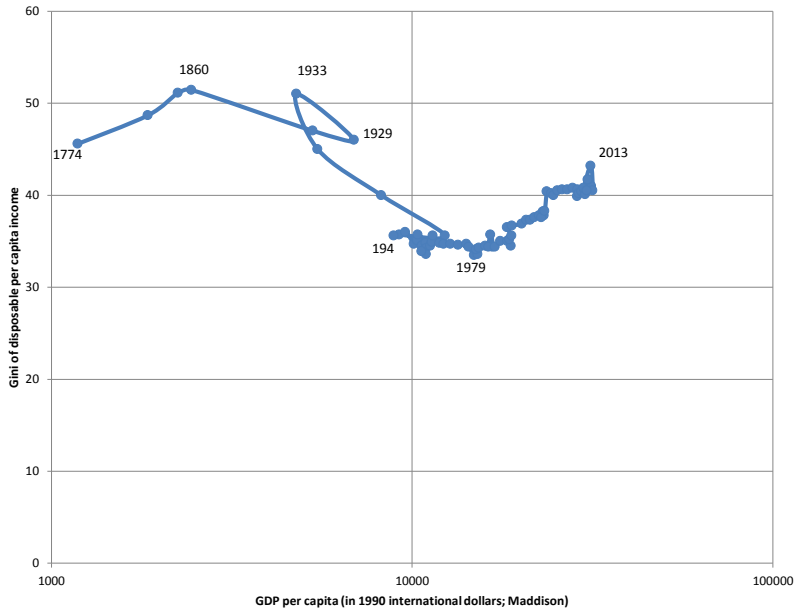
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twoway (scatter gini_gini_88 if bin_year==2011 & keep==1 & mysample==1 & group==1 [w=totpop], text(50 55 "MEX") text(57 60 "BRA") text(42 34 "USA") text(23 30 "IND-R") text(46 36 "NGA") text(39 24 "CHN-U") text(45 30 "CHN-R") ylabel(20(10)60)) (function y=x, range(20 60) legend(off) ylabel(Gini in 2011) xlabel(Gini in 1988))
Using final11\combine88_11.dta
```

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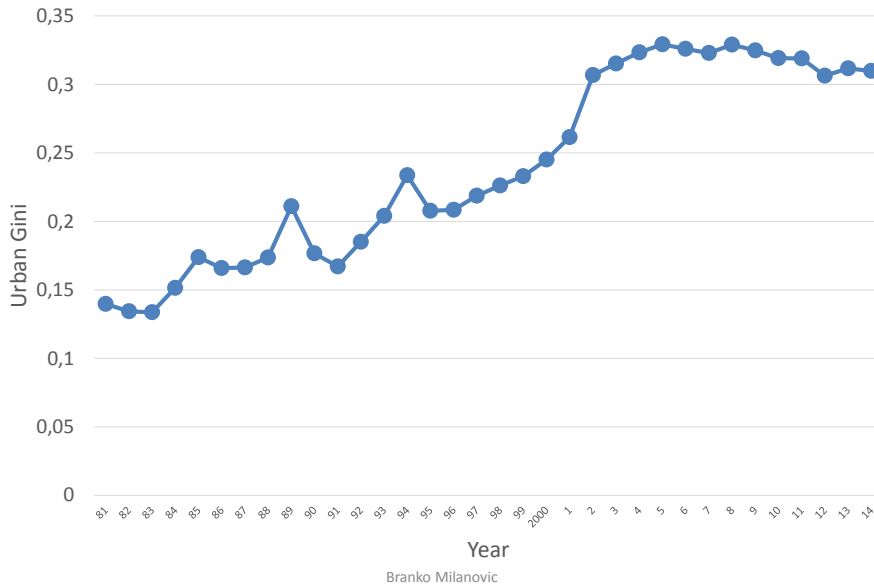
Kuznets relationship for the UK, 1688-2010



Kuznets relationship for the United States, 1774-2013

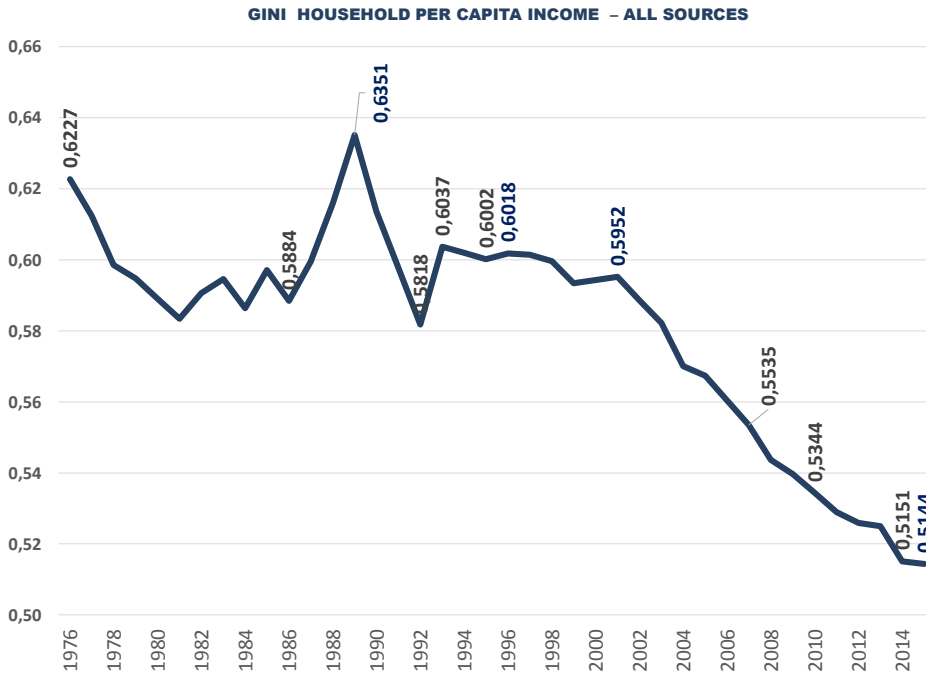
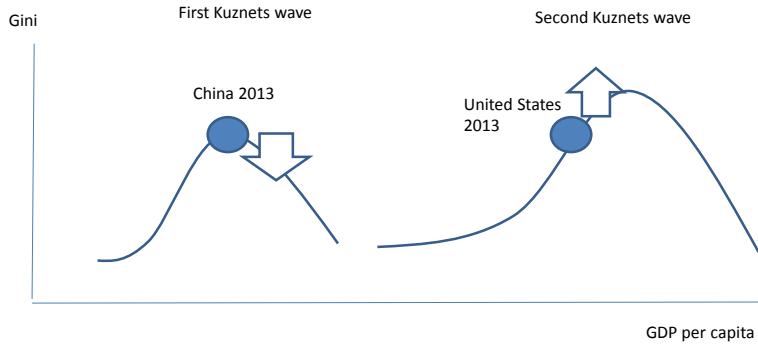


Urban Gini in China: 1981-2014 (based on official household surveys)



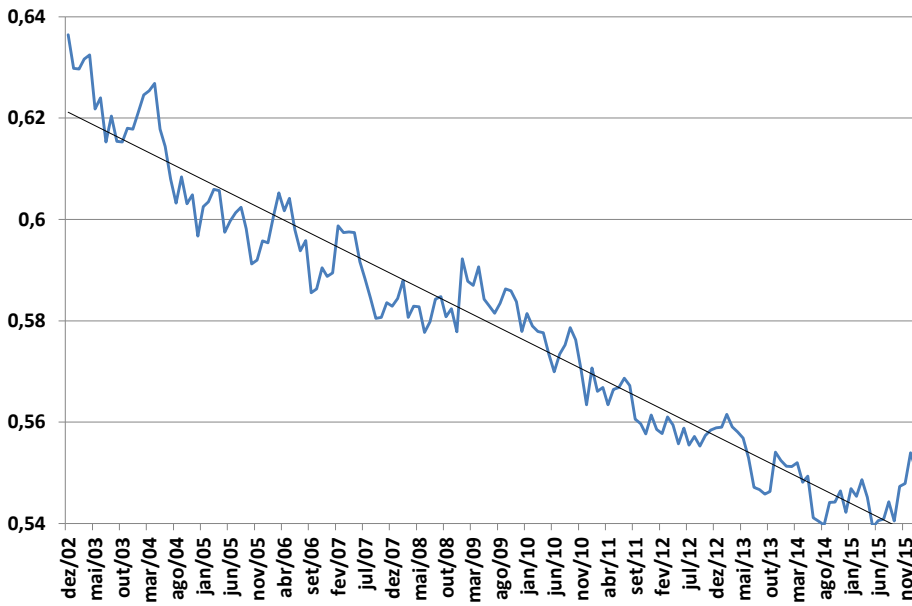
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Where are now China and the US?



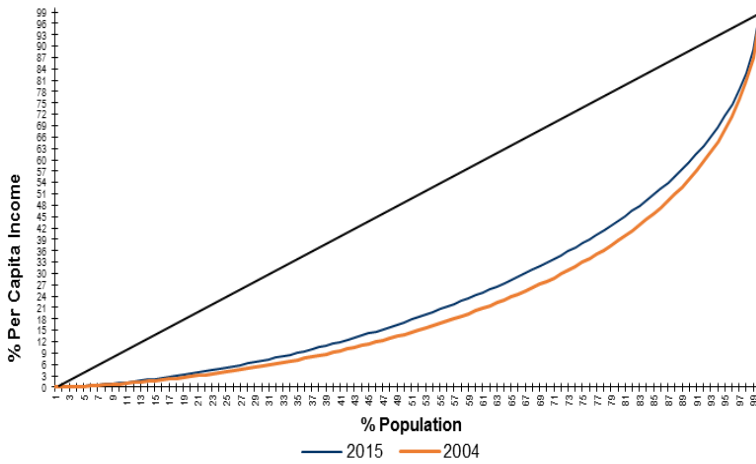
Source FGV Social from PNAD/IBGE microdata

GINI - EARNINGS INEQUALITY



Source FGV Social from PME/IBGE microdata per capita labour 15 to 60 years

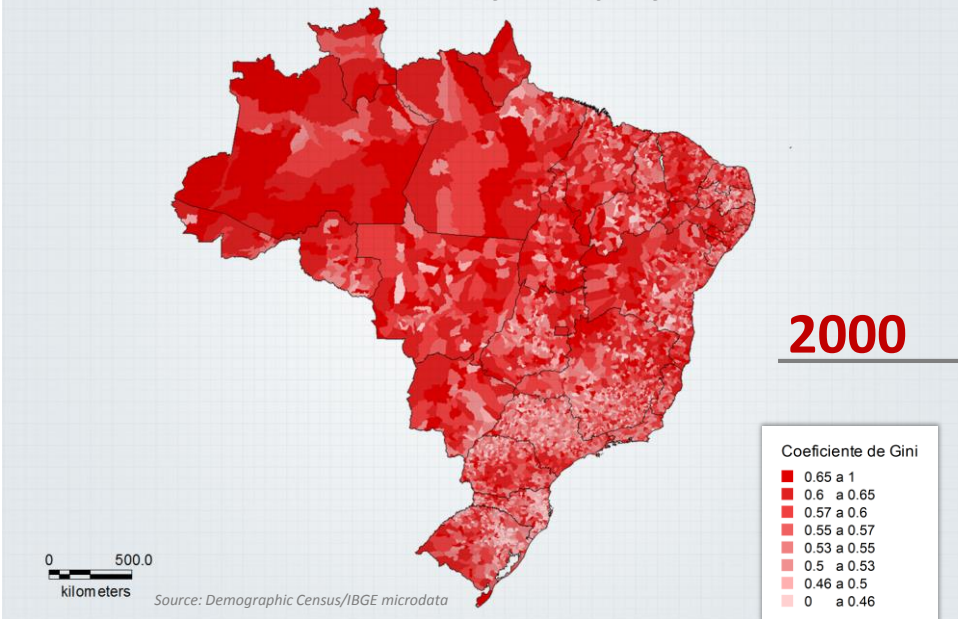
Lorenz Dominance



Source FGV Social from PNAD/IBGE microdata

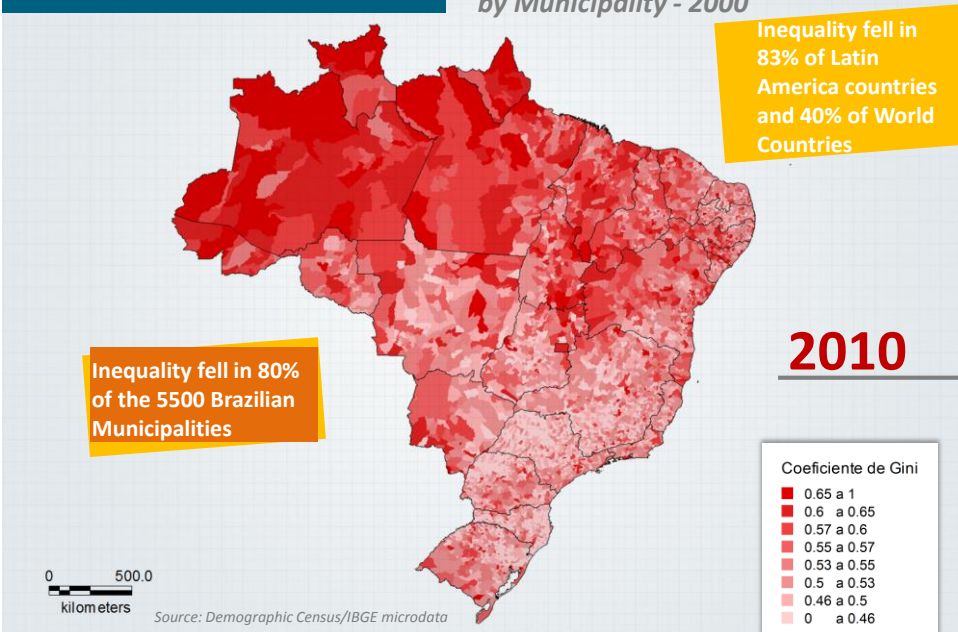
Inequality by Municipalities

Gini Index of Per Capita Income by Municipality - 2000



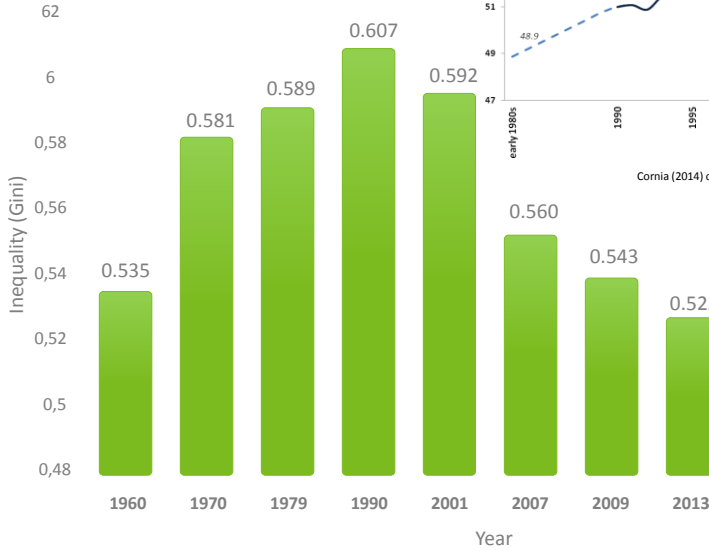
Inequality by Municipalities

Gini Index of Per Capita Income by Municipality - 2000

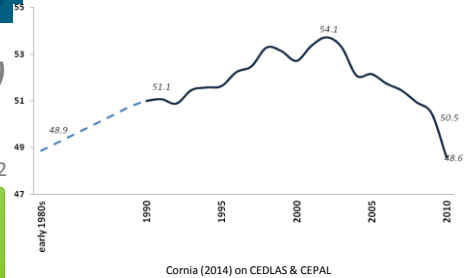


Long Run & Regional Perspective

Inequality of Per Capita Income (Gini)



Latin America Latina last 3 Decades

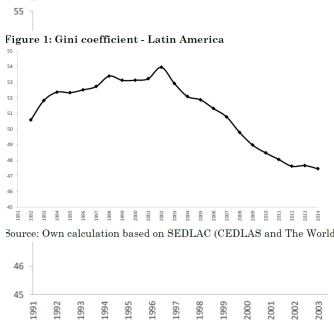


Kuznets curves or Kuznets Waves? Milanovic (2016)

Source: CPS; FGV from PNAD, PME and Census / IBGE microdata and Langoni (1973)

A Visão da Nova Década - Desigualdade da Renda Per Capita

Figure 1: Gini coefficient - Latin



Source: Own calculation based on SEDLAC (CEDLAS and The World

Source: Own calculation based on SE

Table 1: Annual changes in Gini coefficient

	1992-2002	2002-2010	2010-2014
Argentina	0.8	-1.1	-0.5
Bolivia	0.6	-1.5	0.1
Brazil	0.1	-0.7	-0.4
Chile	0.0	-0.4	-0.2
Colombia	0.6	-0.3	-0.5
Costa Rica	0.5	0.0	0.1
Ecuador	0.0	-0.8	-0.9
El Salvador	-0.1	-0.9	-0.7
Honduras	0.6	-0.5	0.4
Mexico	-0.3	-0.5	0.4
Panama	0.1	-0.6	-0.1
Paraguay	0.5	-0.7	0.0
Peru	0.4	-1.0	-0.5
Uruguay	0.6	-0.1	-0.9
Venezuela	0.6	-1.1	0.0
Southern South America	0.4	-0.6	-0.4
Andean region	0.4	-1.0	-0.4
Central America	0.2	-0.5	0.0
Latin America	0.3	-0.7	-0.3

Source: Own calculation based on SEDLAC (CEDLAS and The World

