

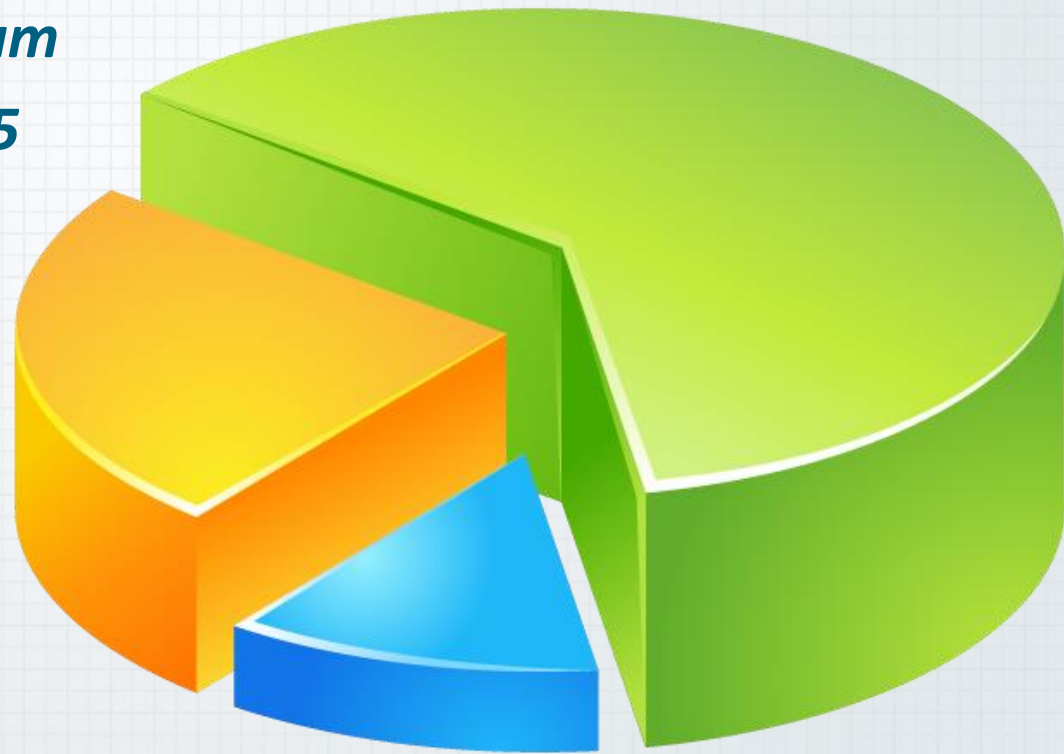
Global Distribution of Income, Protests & Assets: Lessons from Brazil (& Latin America)

Marcelo Neri

FGV Social and EPGE/FGV

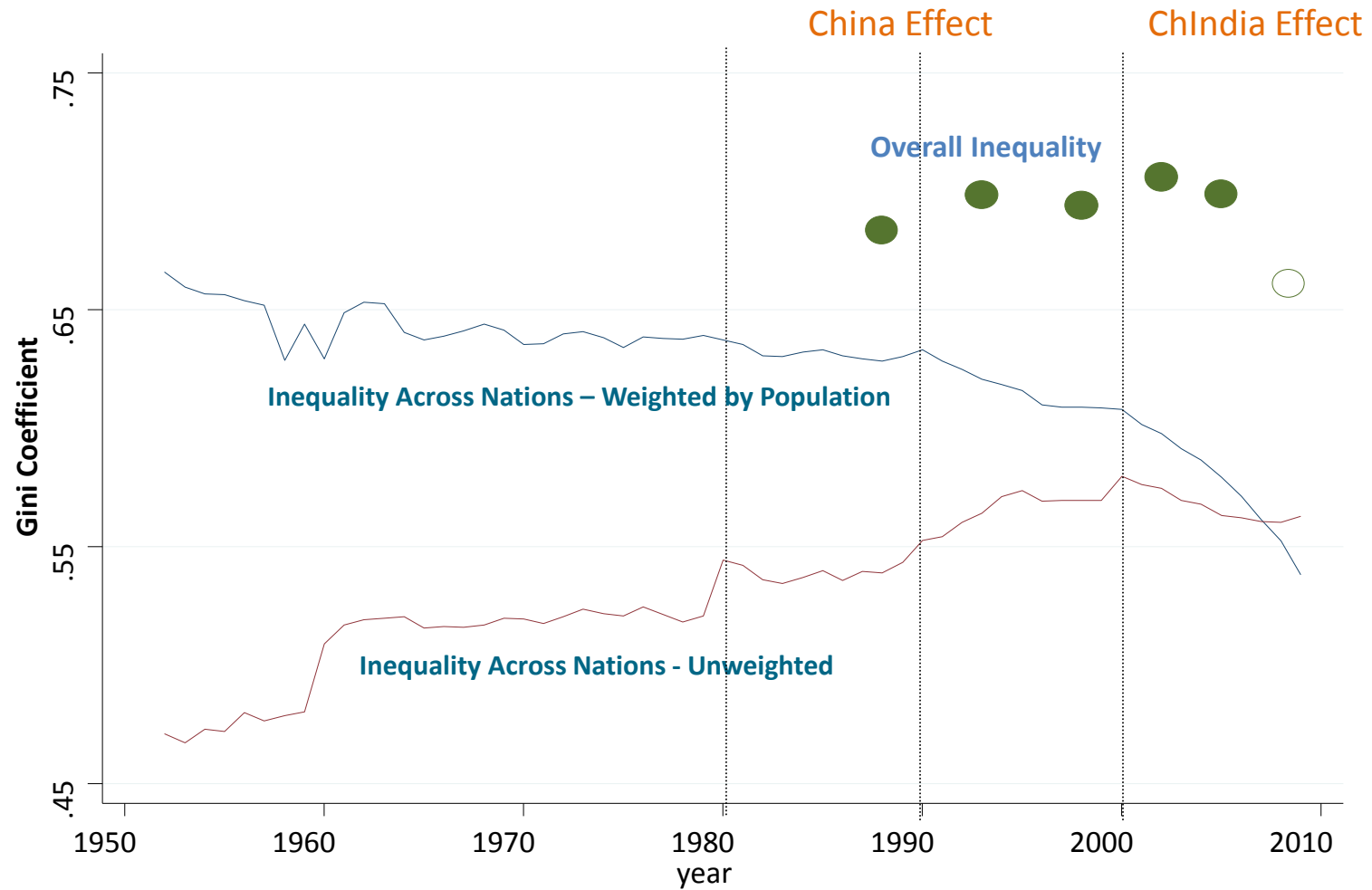
World Social Sciences Forum

Durban, September, 2015



Evolution of World Income Inequality

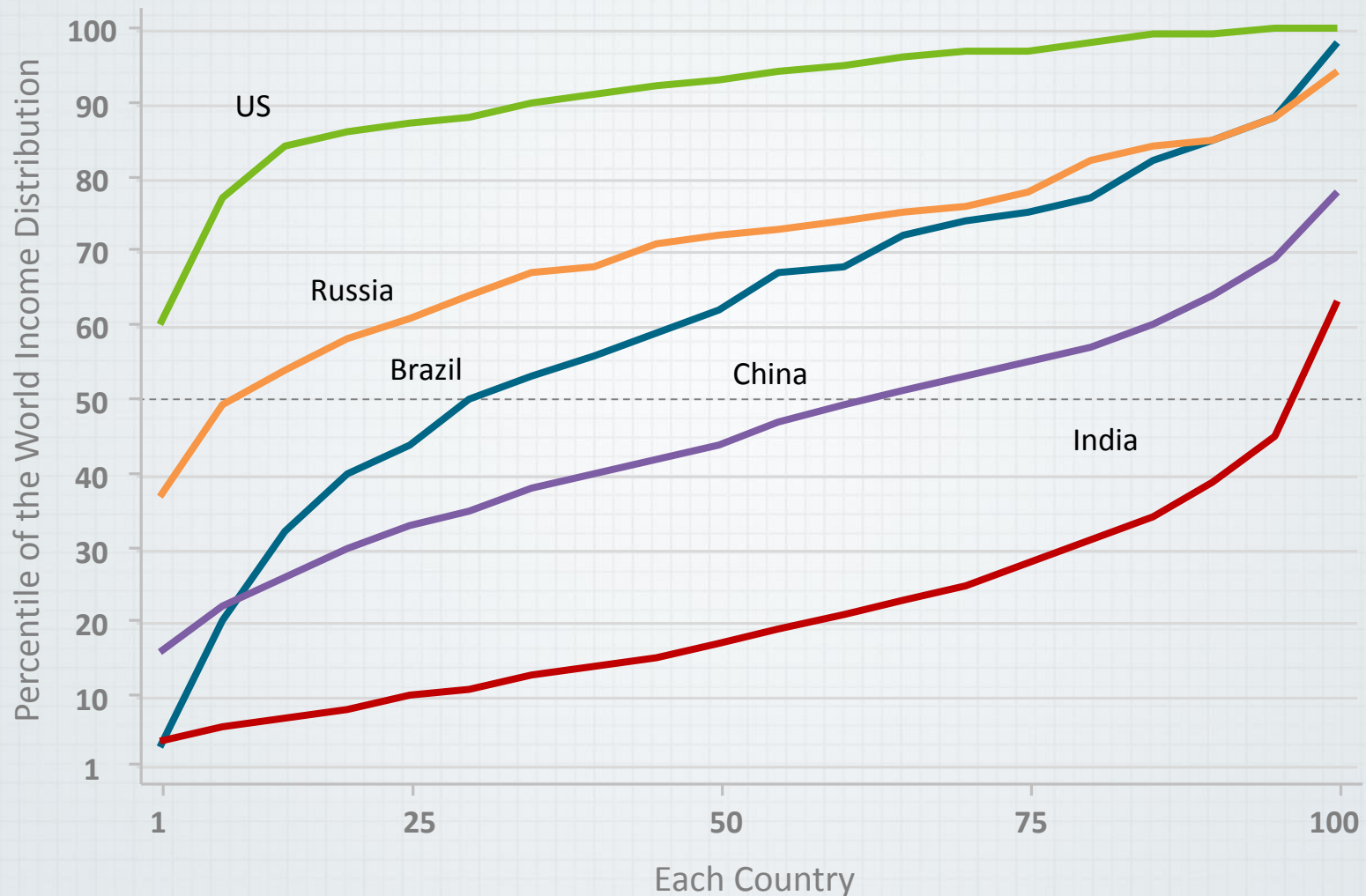
Different Concepts



Source: Milanovic (2011)

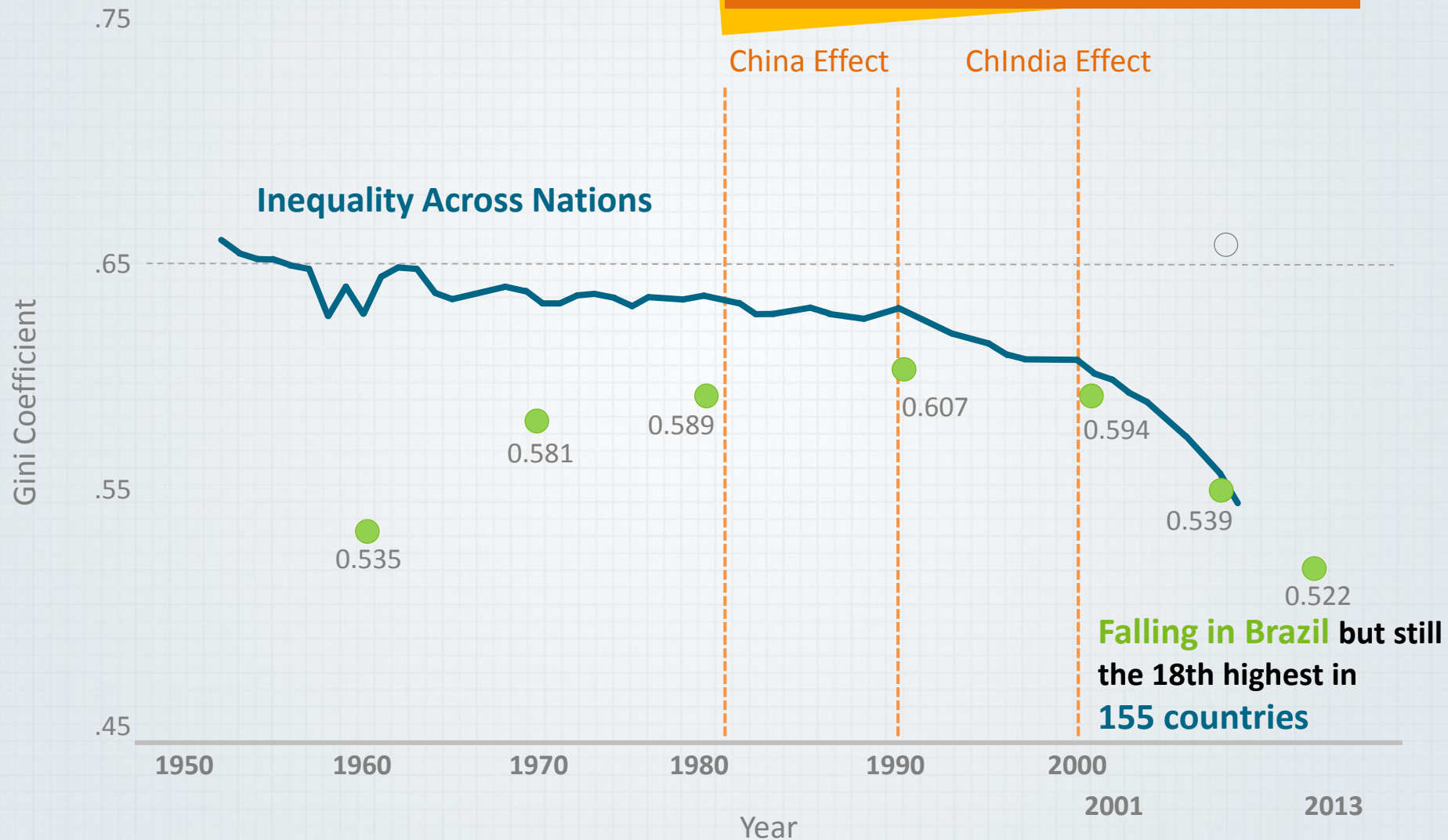
Income Distribution Relative to the World

Brazilian Per Capita GDP (PPP) was 93.7% of the World GDP in 2012



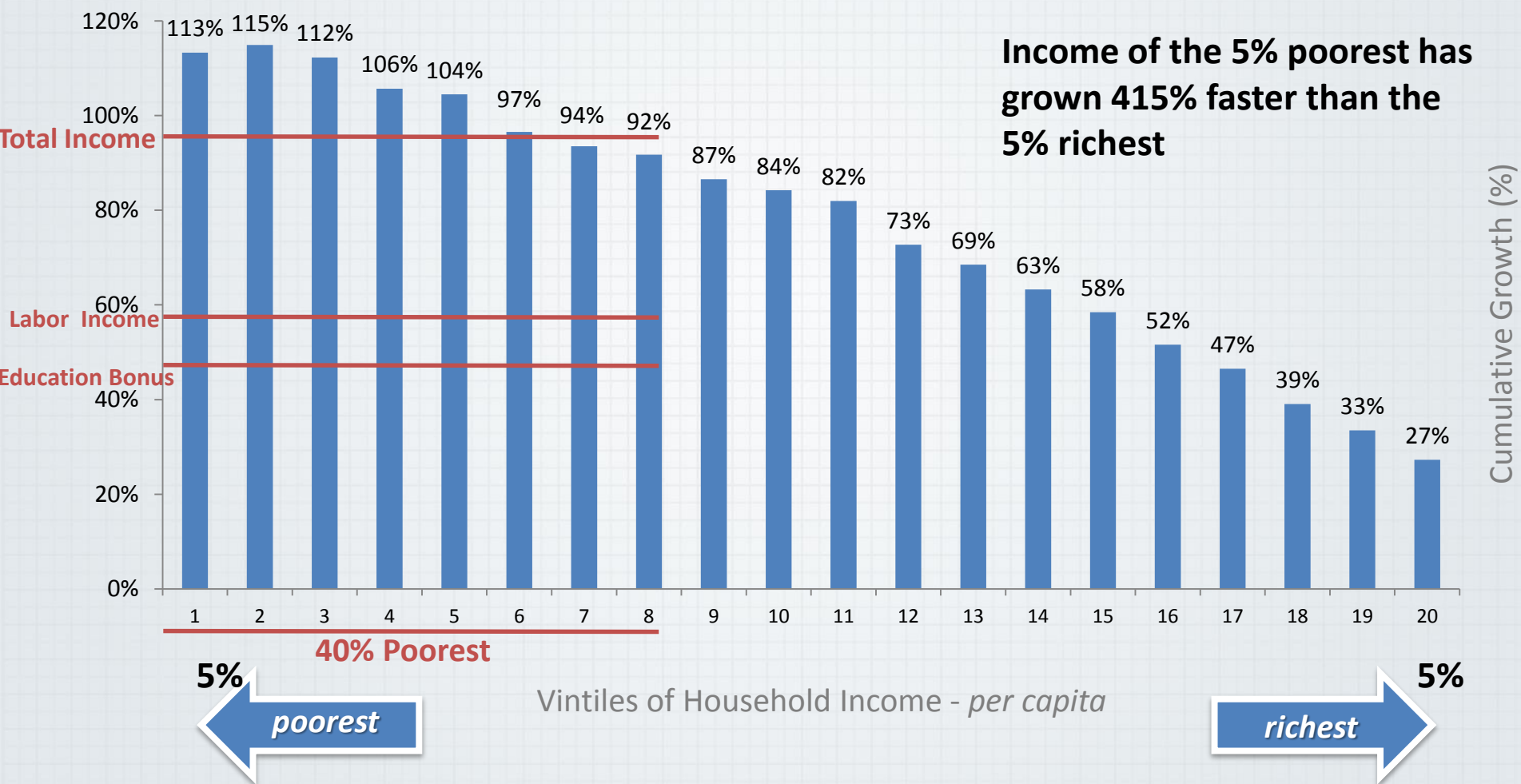
Brazil is a small World

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



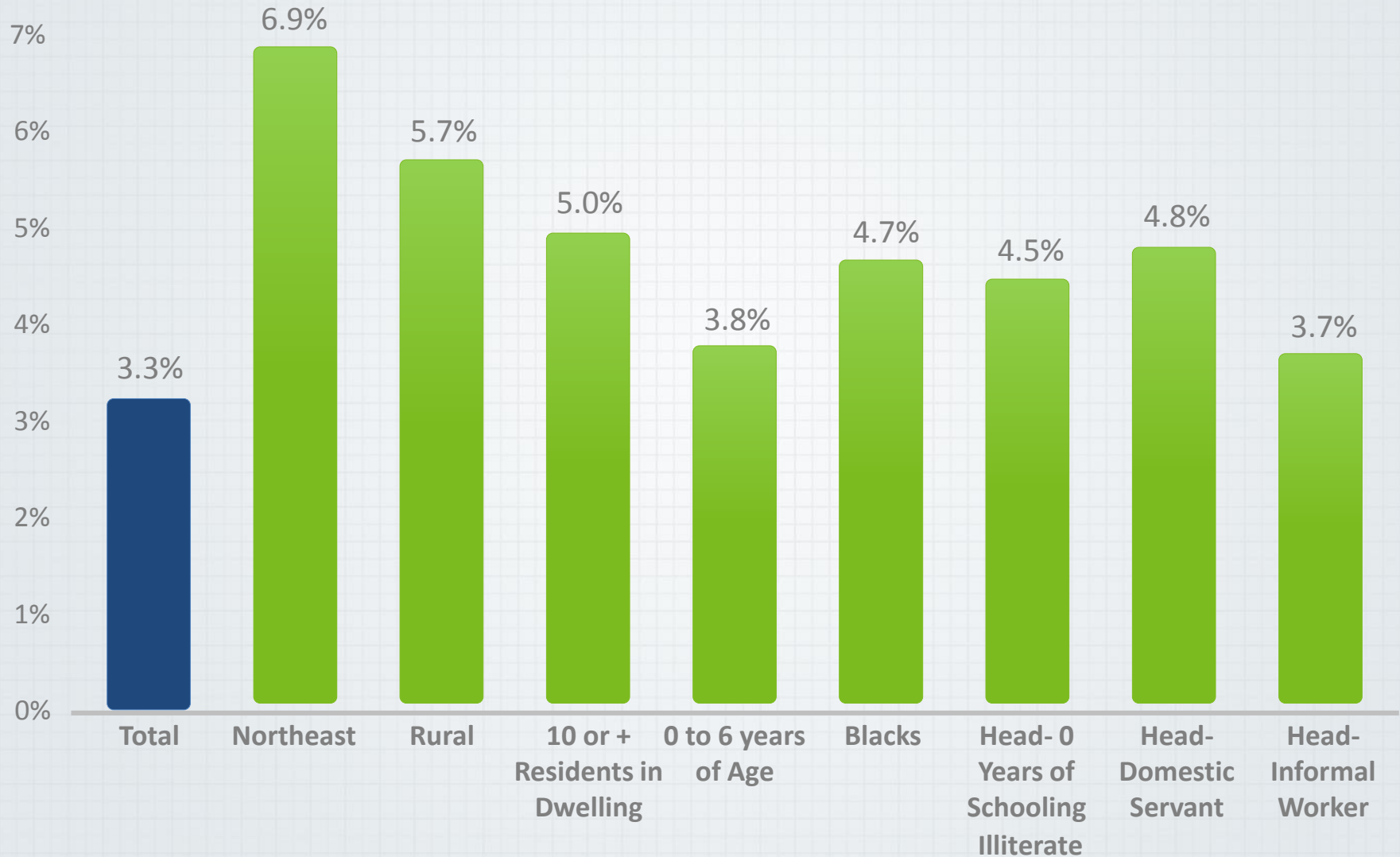
Changes in Income Distribution 2001 -2013

Cumulative Growth Rate of Per Capita Income by Vintiles 2001-2013(%)



Horizontal Inequality Changes Growth Rate Excluded Groups

Annual Growth Rate of Per Capita Household Income - 2001 to 2013

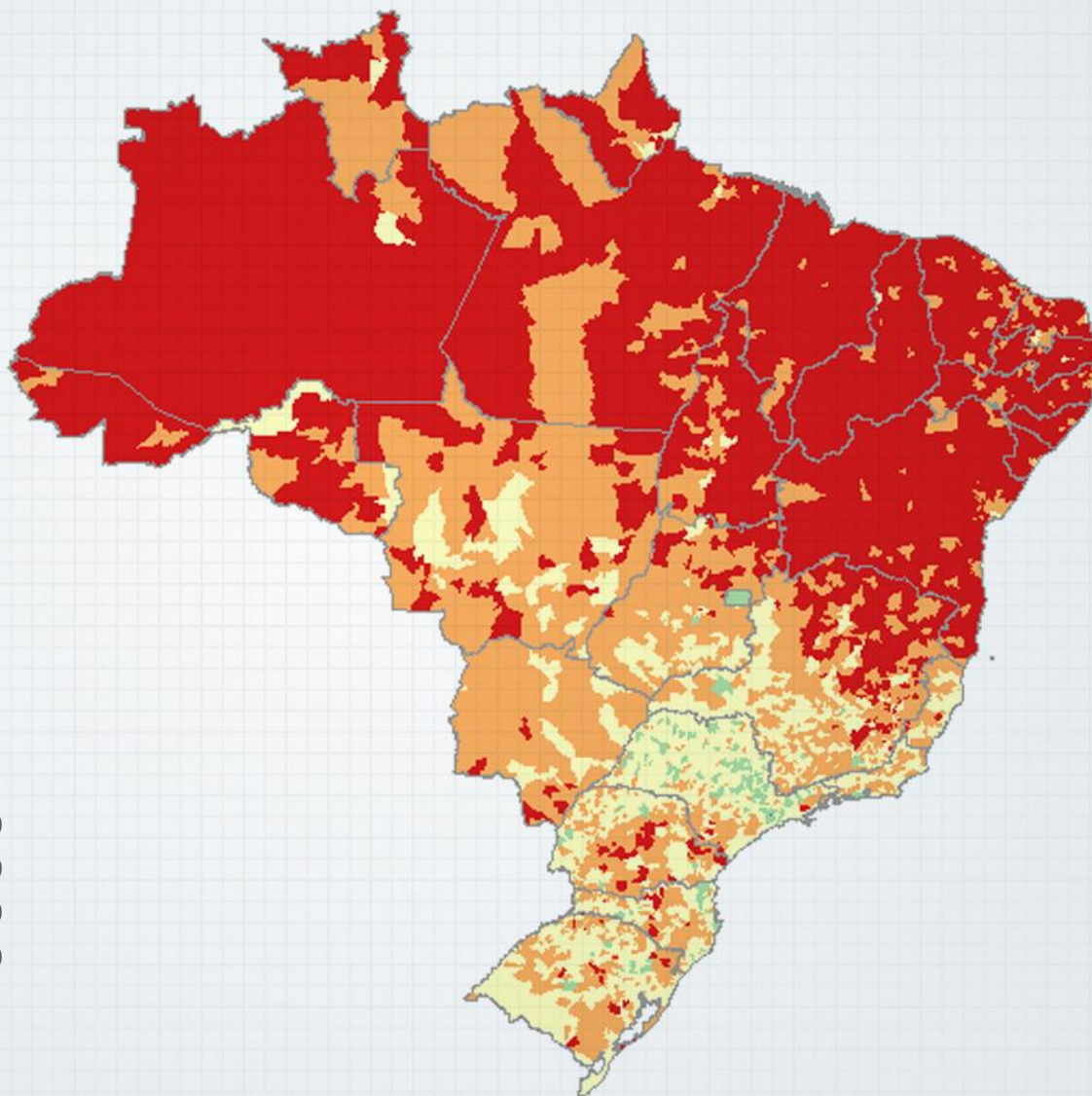
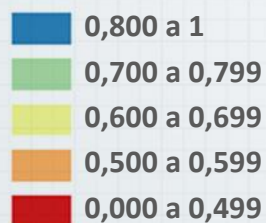


Source: SAE from PNAD/IBGE microdata

HDI 2000

*Human Development Index by
Municipality 2000 - IPEA/FJP/UNDP*

**In 2000, 41%
of the
municipalities
presented
very low HDI**



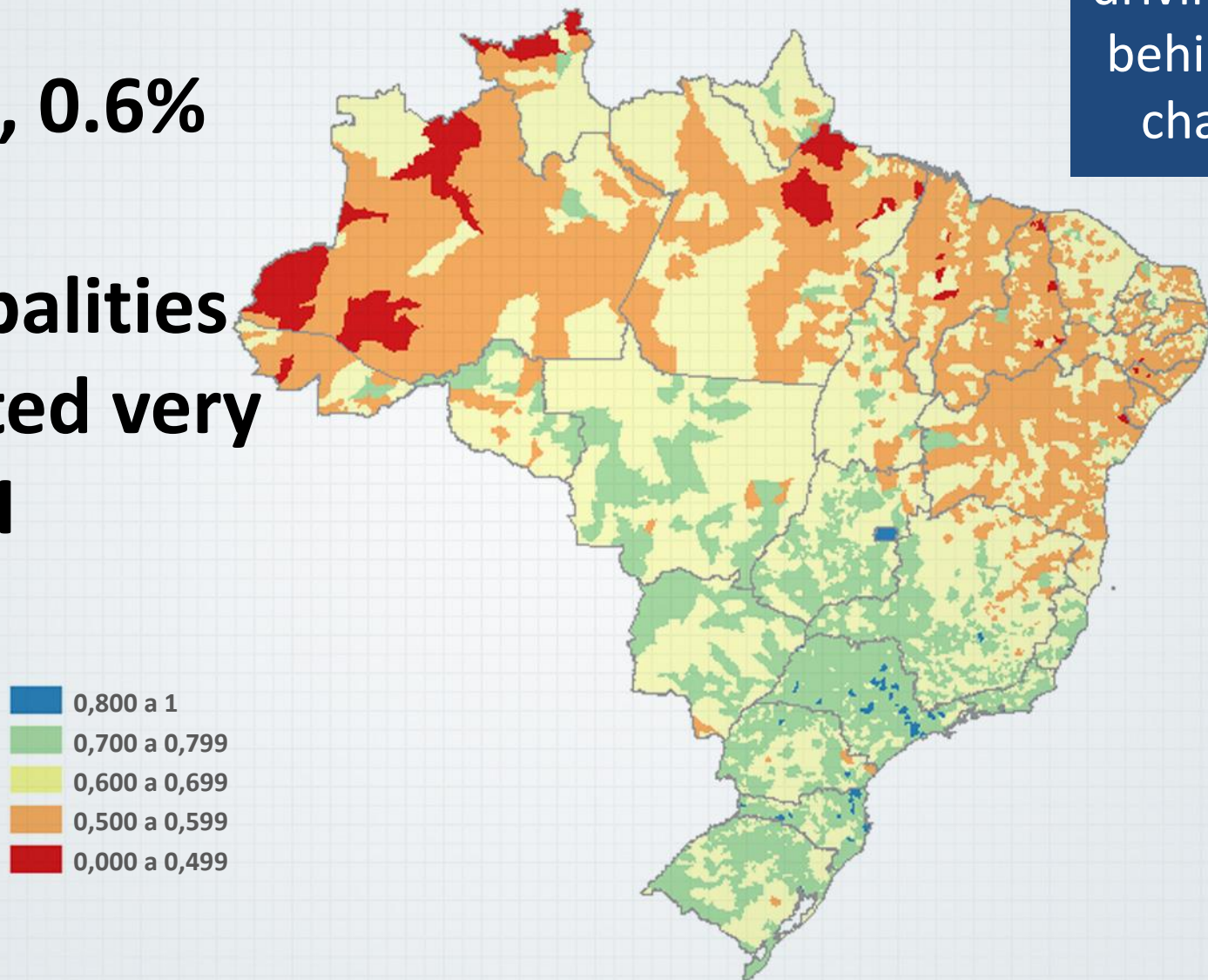
Source: Ipea/PNUD/FJP from Demographic Census/IBGE 2010 microdata.

HDI 2010

*Human Development Index by
Municipality 2010 - IPEA/FJP/UNDP*

Education is
the main
driving force
behind HDI
changes

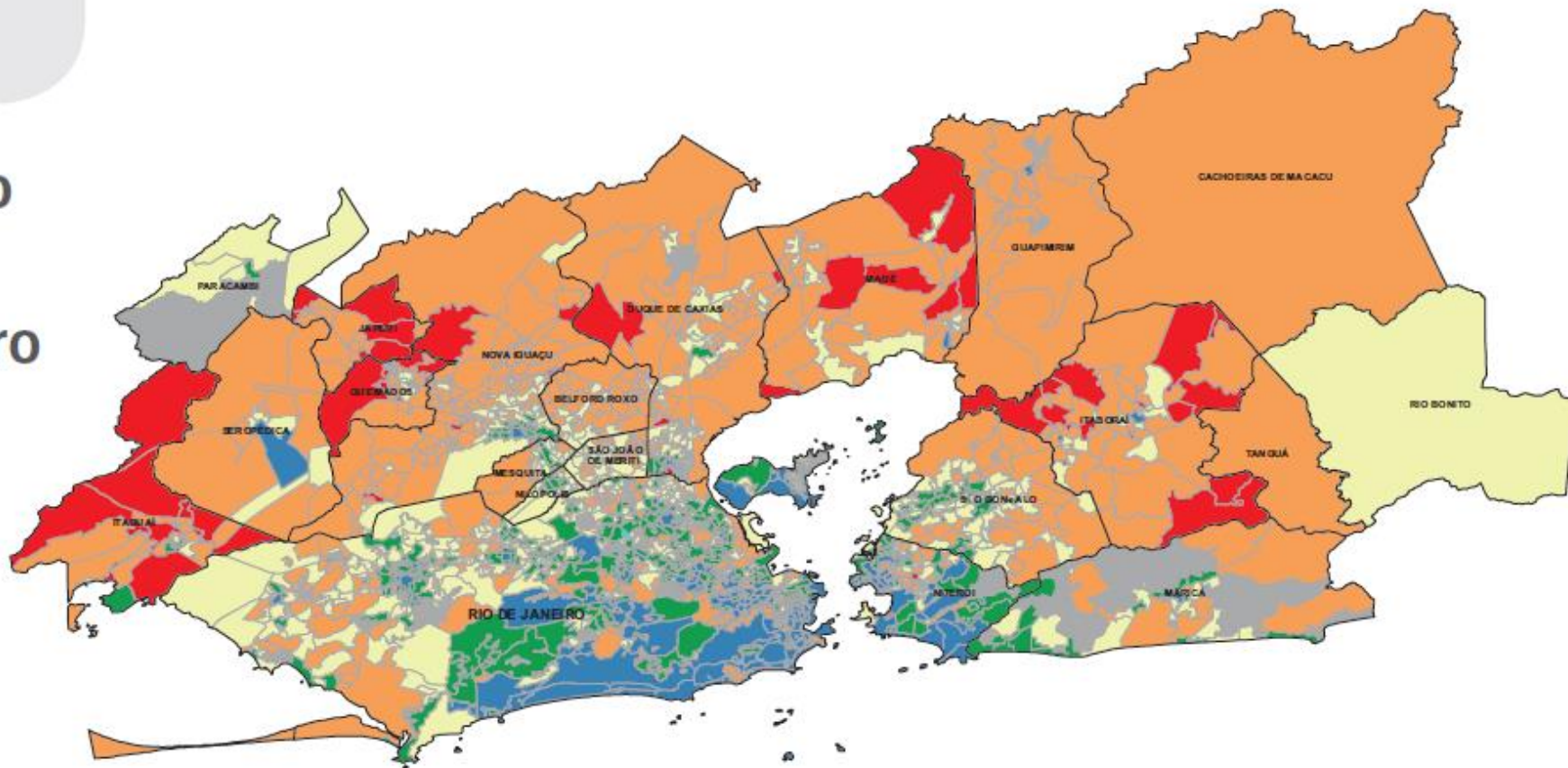
**In 2010, 0.6%
of the
municipalities
presented very
low HDI**



Source: Ipea/PNUD/FJP from Demographic Census/IBGE 2010 microdata.

Região
ana
aneiro

The Great Rio de Janeiro by Neighborhoods



Fonte: SAE/IPEA, PNUD, FJP a partir dos microdados do Censo Demográfico/IBGE

População:
PIB: R\$ 27
Densidade
IDHM: 0,7
IDHM Edu
IDHM Long
IDHM Ren



What explains + Social Inclusion?

Growth or + Equity?

2001-2013

1st MDG: Extreme Poverty Line (U\$S 1,25 a day PPP) fell 56% in 12 years

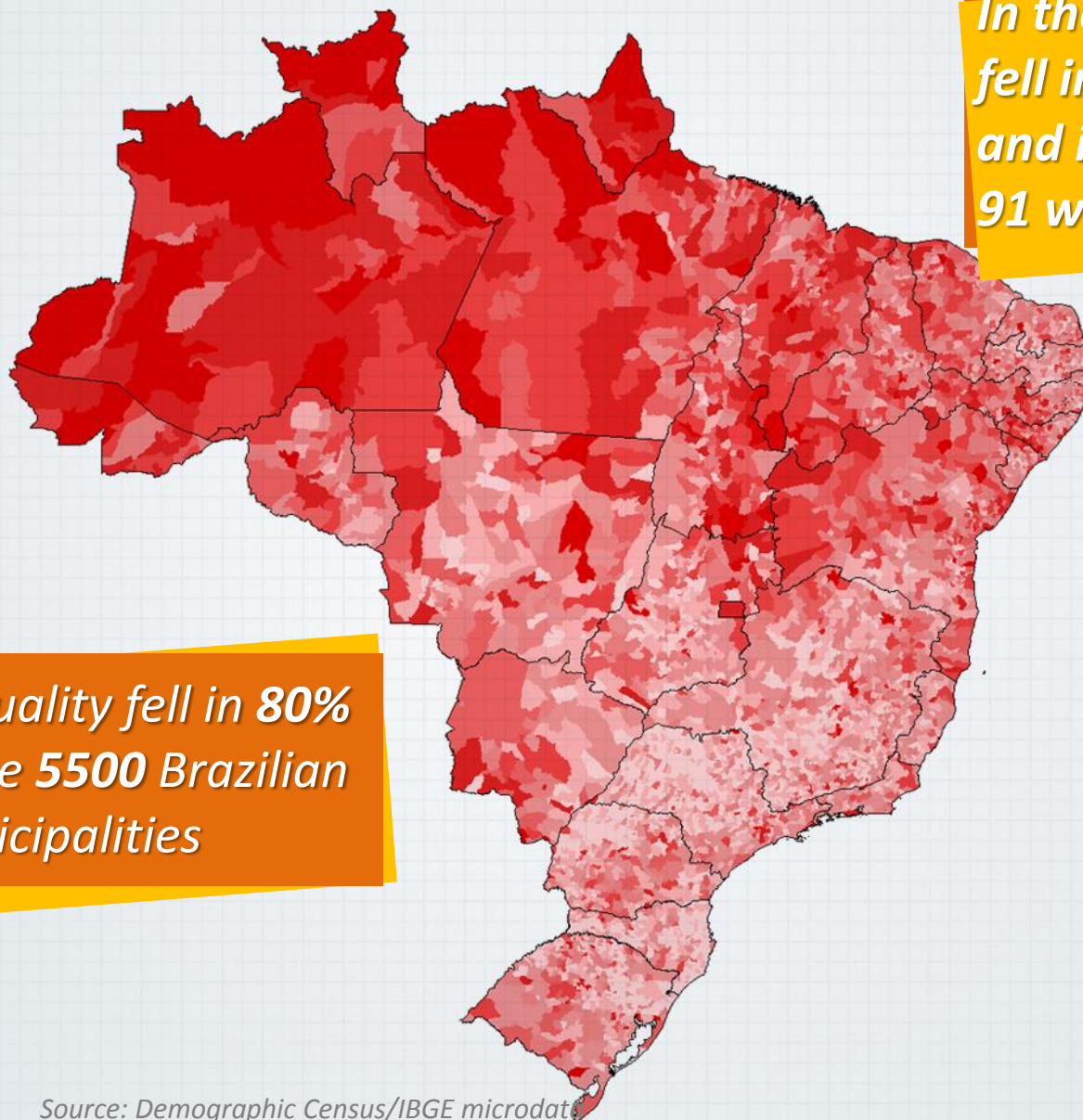
**Brazil
Main
Target**

Component that Explains	Proportion of Extremely Poor
	% of Total Fall (56%)
Income growth	46,7%
	The Middle Path
Inequality Fall	53,3%
Total	100%

Inequality Within Municipalities

*Gini Index of Per Capita Income
by Municipality - 2010*

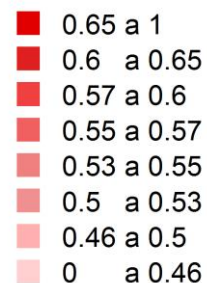
*In the 2000s Inequality
fell in 83,3% of LACs
and in 39,2% of other
91 world countries*



*Inequality fell in 80%
of the 5500 Brazilian
Municipalities*

2010

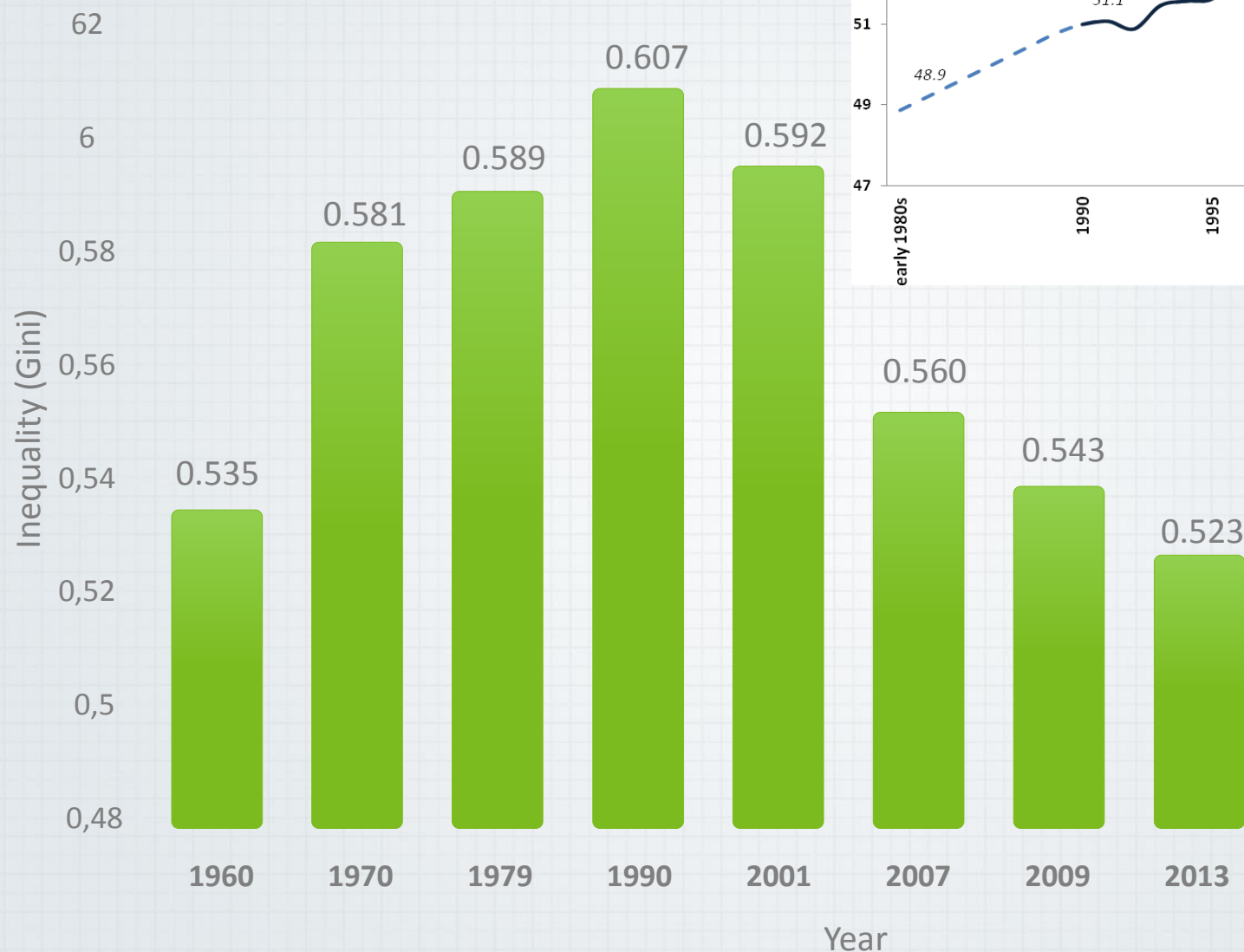
Coeficiente de Gini



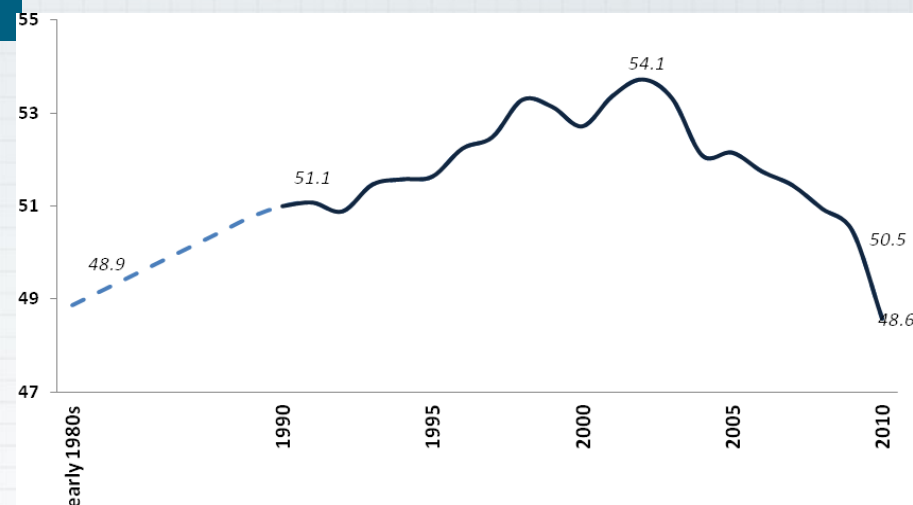
Source: Demographic Census/IBGE microdata

Long Run & Regional Perspective

Inequality of Per Capita Income (Gini)



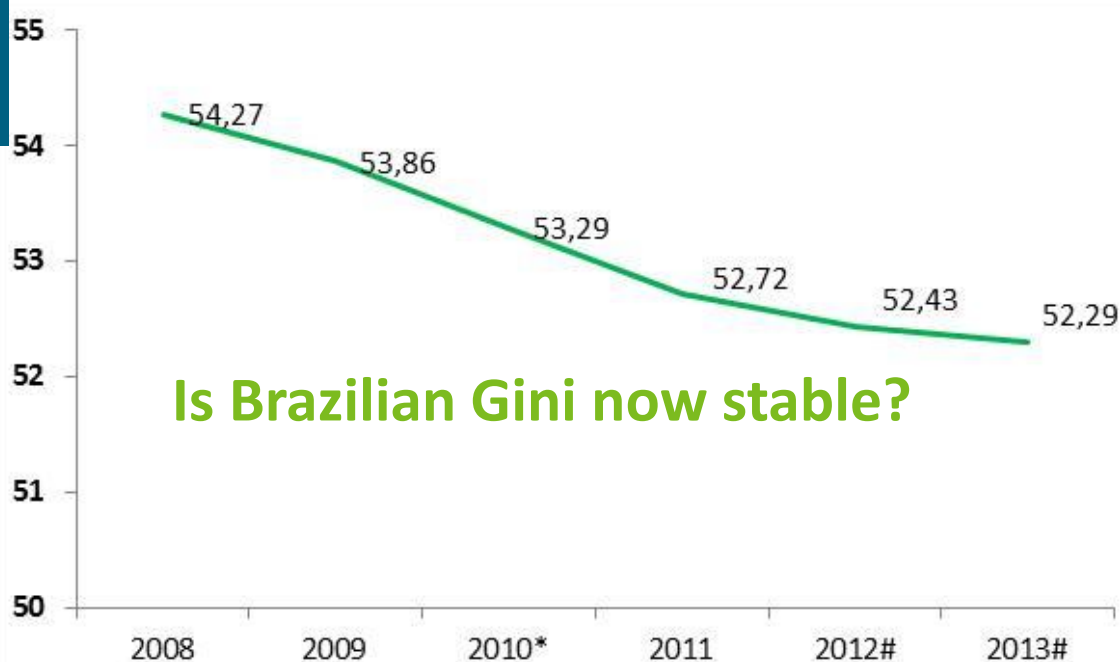
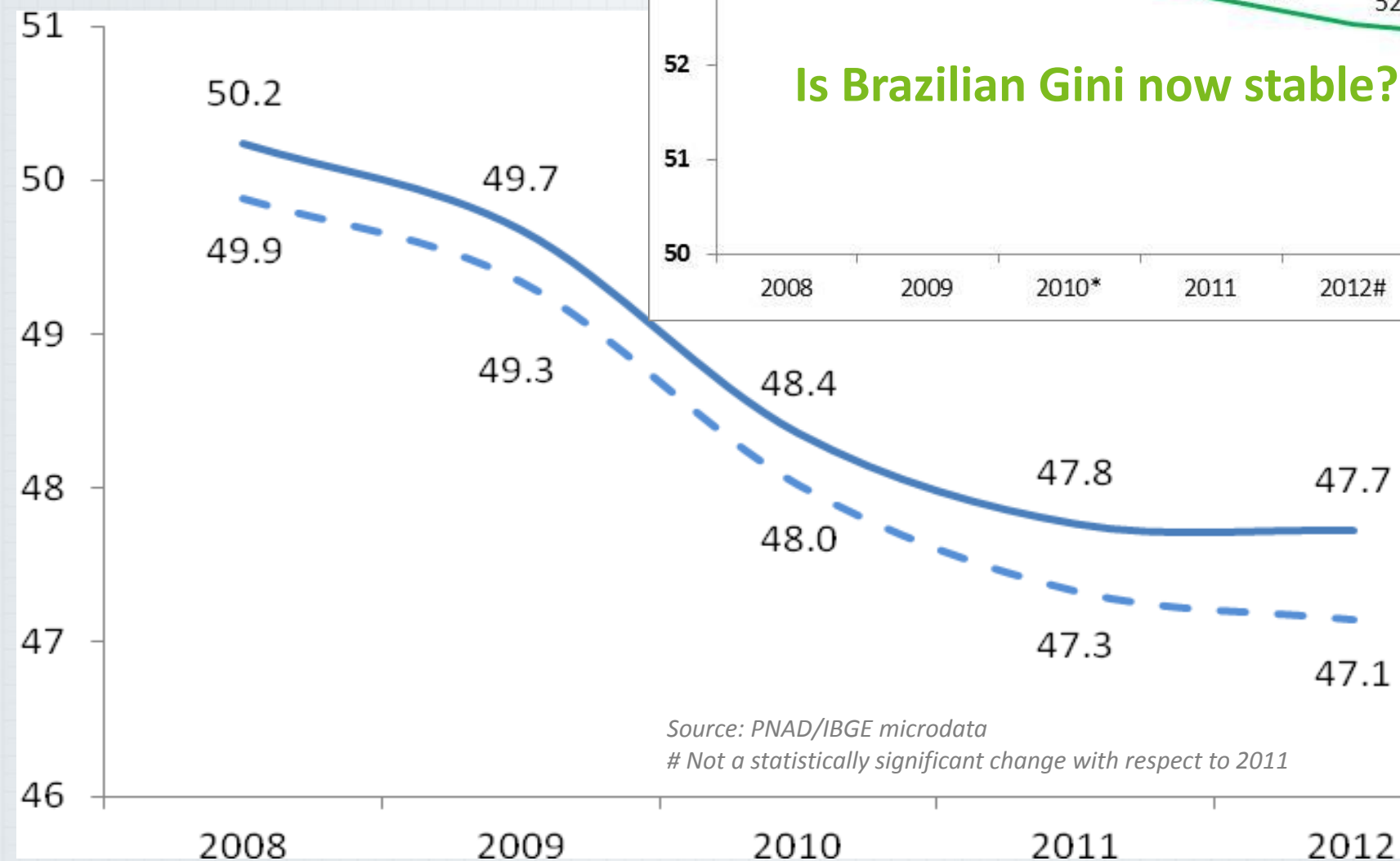
Latin America Latina last 3 Decades



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

Is Inequality Still Falling?

And in Latin America?



Is Brazilian Gini now stable?

Cornia (2014) on CEDLAS & CEPAL data for 11 countries: **Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Panama, Peru and Uruguay**. The dotted line includes Uruguay. The solid lines excludes it.

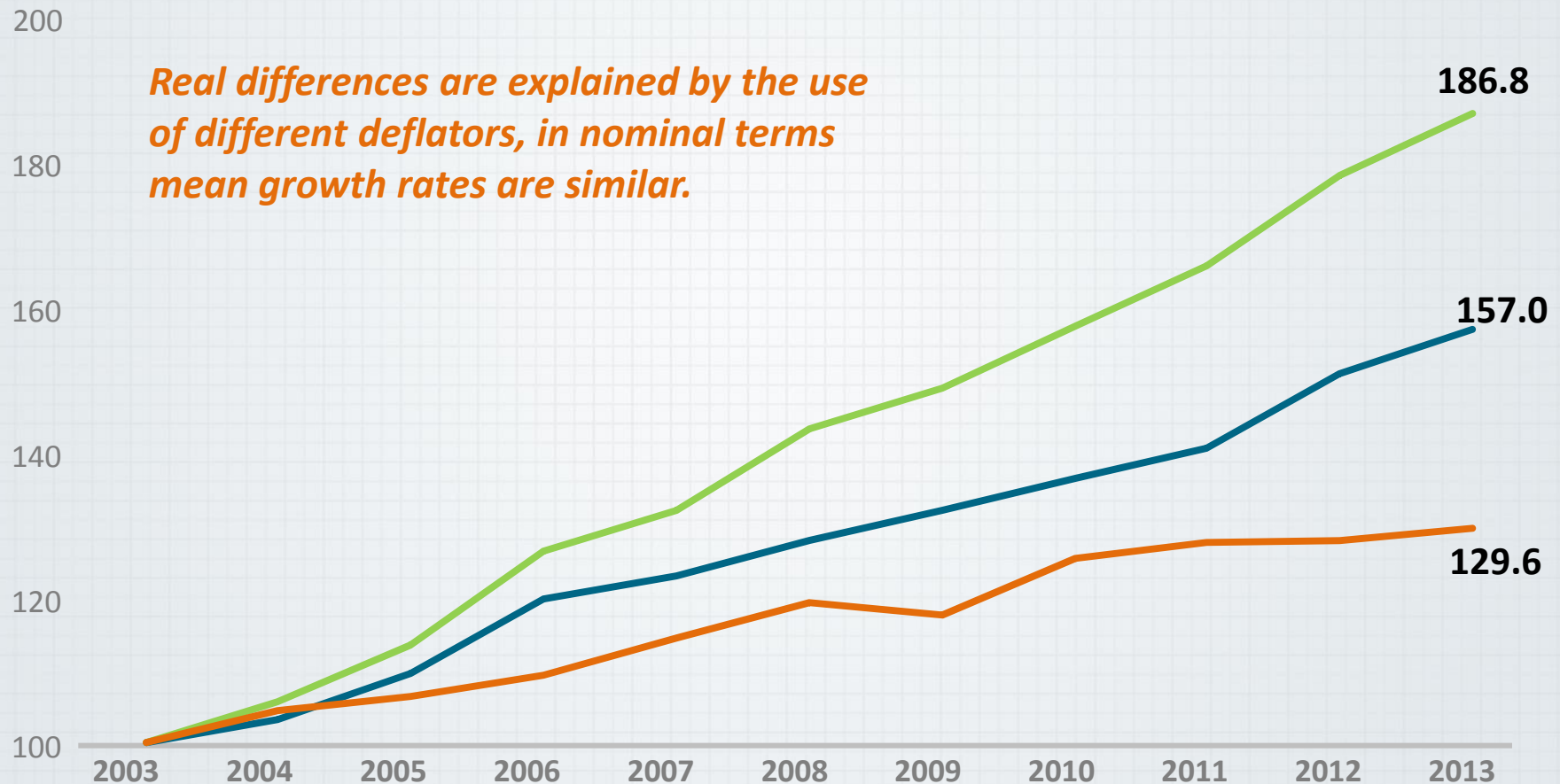
How much did it grow?

Prosperity

Equality

GDP X **Mean Income PNAD** X **Median Income PNAD**

Real Per Capita 2003 = 100



Real Per Capita Earnings Growth 6 Main Metro Cities

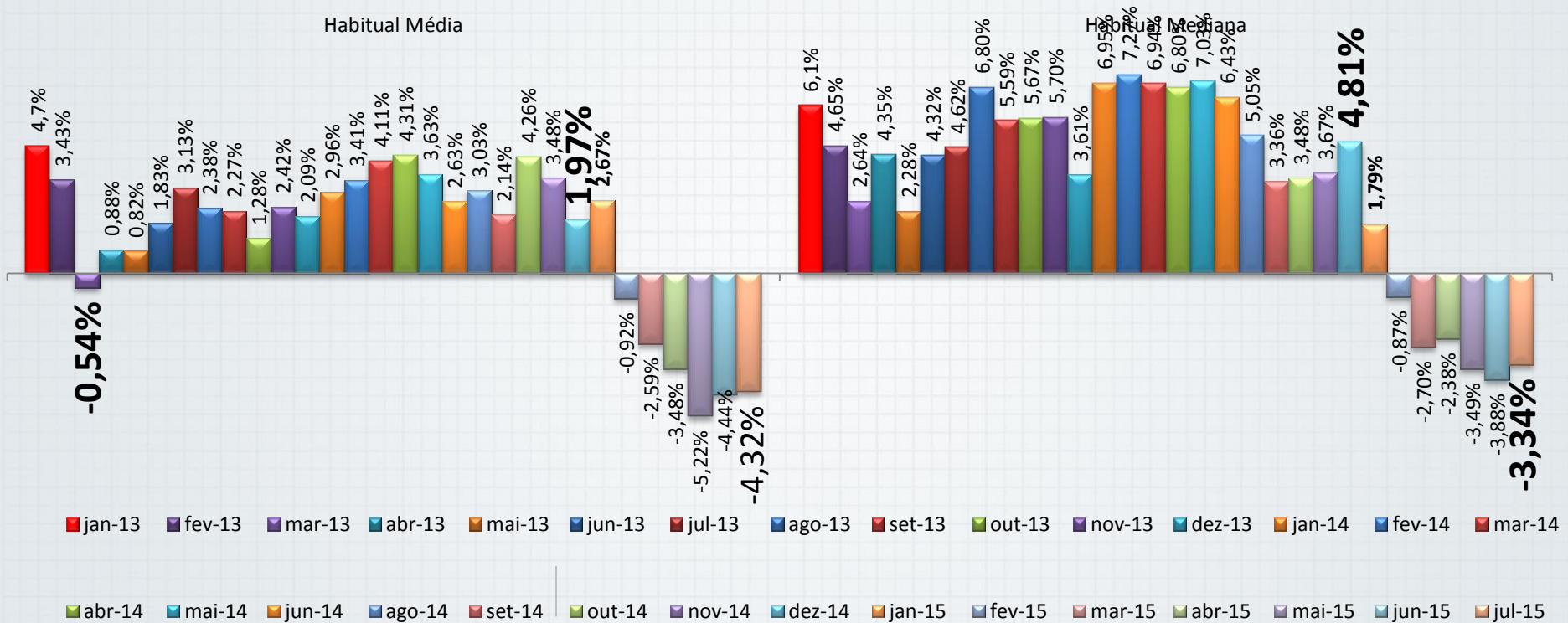
At a National Level Labor Income fell 0,44 in the first semester of 2015 and total income probably did not fall yet

12 months Change PME

Mean

Habitual Média

Median



Demonstrations June 2013

Profile With Respect to Protests

Variables / Participation	Participated	Didn't participate but wanted to	Dind't participate, didn't want to, but approves	Disapproves
Honest Government – 3rd Main Motivation to Protest*	24%	23%	15%	3%
Average Age	31	37	46	50
Men	49%	37%	34%	32%
Tertiary Education	26%	16%	8%	5%
Household Head Income	R\$ 1,464	R\$ 1,382	R\$ 1,104	R\$ 871
Total Household Income	R\$ 2,836	R\$ 2,544	R\$ 1,802	R\$ 1,722

Source: SM 2013 microdata – 3800 Interviews 15 years of age and above * First two are None 29,23%, Health & Education 29,19%

Participation on the 2013 Demonstrations

Order of Importance of Explanatory Variables: Stepwise Multinomial Ordered Logit Model

Order	Variables	Coefficient	p-value	Odds Ratio
1	<i>Internet as Main Source Information</i>	0.9893	<.0001	2.69
2	<i>Northeast</i>	-0.736	<.0001	0.48
3	<i>Head or Spouse</i>	-0.4172	0.0015	0.66
4	<i>Work</i>	0.2441	0.009	1.28
5	<i>Thinks: Incomes of the poorest improved +</i>	0.3431	0.0001	1.41
6	<i>Delay in Public Services Bill</i>	0.2371	0.009	1.27
7	<i>15-29 years</i>	0.7224	<.0001	2.06
8	<i>30-59 years</i>	0.3755	0.0019	1.46
9	<i>Is against Bolsa Familia (Brazilian CCT)</i>	0.2638	0.0124	1.30
10	<i>Has Private Health Insurance</i>	0.192	0.0404	1.21
11	<i>Confederations Cup City Host</i>	0.443	0.0027	1.56
12	<i>Central-West</i>	-0.4422	0.0555	0.64
13	<i>Uses bus + than 3 times a week</i>	0.2249	0.0464	1.25

The bottom half of Brazilian population have not used internet in the last 3 months

Brazil Social: References & Links (Marcelo Neri)

Shared Prosperity:

http://www.compaso.com.br/docs/PP_Shared_Prosperty_Final.pdf

Middle Class:

http://www.compaso.com.br/docs/NCM_Neri_Sae_ClasseMedia_Ingl_esFinal.pdf;

<http://www.cps.fgv.br/cps/livroncm/> &

<http://www.sae.gov.br/site/?p=22297>

Social Tensions:

http://www.compaso.com.br/docs/Social_tension_final.pdf

Pro Poor Growth:

http://www.cps.fgv.br/cps/pesquisas/Políticas_sociais_alunos/2011/pdf/5PP_KakwaniNeriSonsdarticle.pdf

Income Policies:

http://www.fgv.br/cps/docs/acad/BF_Livro_Scanner.pdf

Deprivation:

http://www.compaso.com.br/docs/PP_inequality_relative_deprivation_and_social_class_Final.pdf

Social Transformations (portuguese – recent study)

www.compaso.com.br/docs/Neri_TransformacoesSociaisAteJulho2014.pdf

Bolsa Família Book Summary

http://www.ipea.gov.br/portal/images/stories/PDFs/140321_pbf_sum_ex_ingles.pdf

<http://www.sae.gov.br/site/?p=22181>

World Without Poverty

<https://www.wwp.org.br/en>

Human Development Map = Data Brazilian Cities

<http://atlasbrasil.ipea.gov.br/2013/en/>

Report on MDGs

<http://www.sae.gov.br/site/?p=23274>

Social Targets:

http://www.cps.fgv.br/cps/pesquisas/Políticas_sociais_alunos/2010/20100512/PDF/BES_MetasSociais_NeriXerez_Teoria.pdf

BRICS:

<http://www.ipea.gov.br/forumbrics/en/>

Brazilian Microdata & Data

<http://www.econ.puc-rio.br/datazoom/>

www.ibge.gov.br

<http://www.ipeadata.gov.br/>

Thanks!

Interactions with Broader Inclusive Development

Equality

Looking at the **distribution among individuals and social groups** of income flows, stocks of assets and rights.

1

Sustainability (Assets)

Ability to maintain the standards of living achieved. **Stocks of human, environmental, physical, cultural and social assets.**

3

Prosperity (Growth)

Growth in mean income and consumption (not only GDP/National Accounts but also look to Household Surveys data and PIT).

2

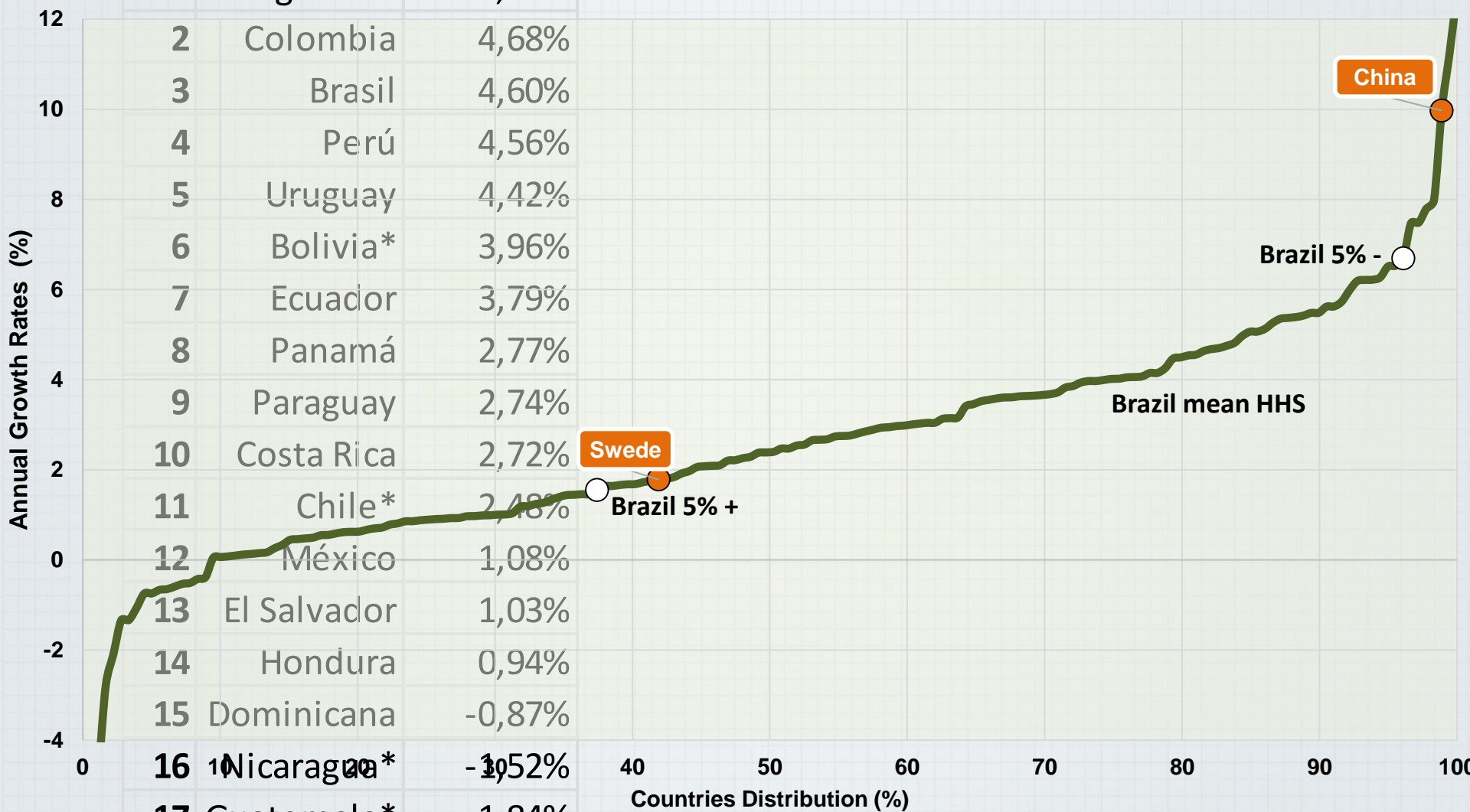
Sensibility (Perceptions)

The last dimension is **subjective**, based on **people's perception** about the **country**, the **public services**, **life quality** and its **actions (Protests).**

4

Ranking Latin America Annual Growth 2003-12 Per Capita HH Income

Distribution of countries according to their average annual growth rate of per capita GDP: 2001-2011



Source: CEDLAS microdata

Growth Gaps Between 2003 and 2013

In Real Terms	Annual Growth
Gap (HH Income per capita (PNAD) – GDP)	1.9%
Gap Labor Cost (PNAD) - Labor Productivity (GDP per Worker)	2.0%

What explains the 2nd Gap?

	Nominal GAP PNAD/GDP	Temporal Adjustment	CPI/Implicit Deflator (ID) Private Consumption (C)	ID Private Consumption(C) /ID Domestic Demand (C+G+I)	ID Domestic Demand (C+G+I)/ID Total Demand (C+G+I+X-M)
Contribution to GAP %	18	0	41	24	17

Source: Pesquisa Nacional por Amostra de Domicílios (PNAD/IBGE); National Accounts (SCN/IBGE).

Relating Levels and Changes: *Household Surveys (HHS) and Personal Income Tax (PIT) based on Top Incomes*

- 1) Real net income rises 50,1% from 2007 to 2012 according to Pure PIT data
Comparing Mixed PIT/HHS 2006-12 from Medeiros et al (2014) with ours from HHS shows:
- 2) Mean income is 34,7% higher than HHS and rises 2,1 percentage points per year more
- 3) Gini Inequality is 11,5% higher and falls 0,36 percentage points per year less.
- 4) If we calculate the net effect of 2) and 3) into Sen's Social Welfare. It is 9,6% higher (actually a Pareto improvement) and rises 1,51 percentage point per year more

Calculated from Atkinson Inequality ChartBook Country and Period	Correlation Gini x Income Share 1%+	Correlation Gini x Income Share 0.1%+	Number of Observations
1) U.S.: 1944 to 2012	0.93	0.92	67
2) U.K.: 1962 to 2011	0.95	0.91	42
3) India: 1953 to 1992	0.73	0.72	27
.....
10-New Zealand: 1982 to 2009	0.92	0.90	13
11- Singapore: 1990 to 2005	0.81	0.85	11
Average 11 Countries*	0.8956*	0.8423*	

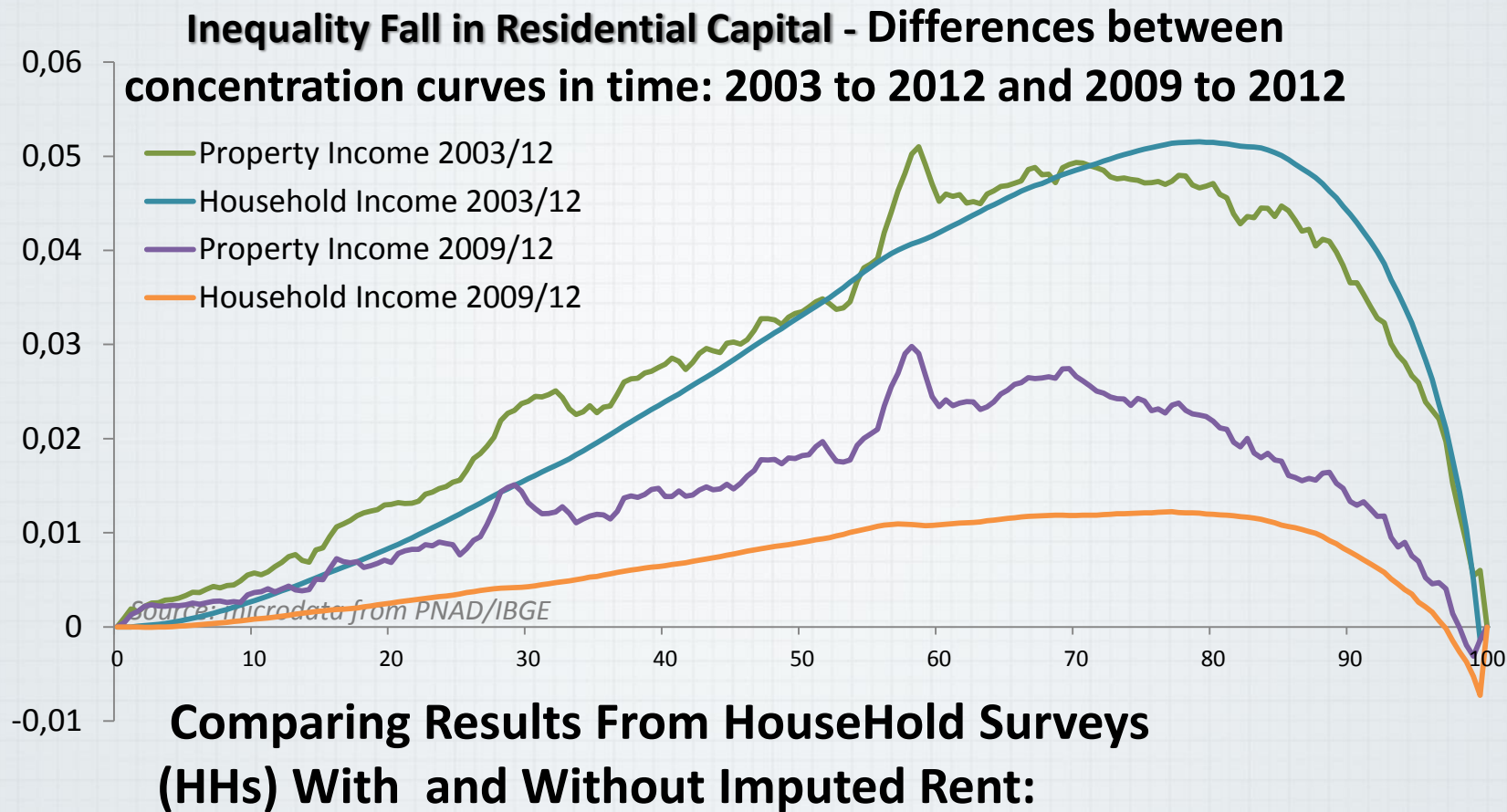
***Inequality levels are very different but movements are somewhat correlated*
in Brazil the correlation turned out to be very negative: -0.9***

Source: Author's elaboration based on Atkinson's database on inequality – Chartbook of Economic Inequality

* Weighted Average by the number of observations for each country.

Relating Levels and Changes: Income Means & Inequalities

PARTICIPATION OF RESIDENTIAL CAPITAL IN FAMILIES' PHYSICAL ASSETS IS AROUND 50% IN BRAZIL AND ELSEWHERE



- 1) Gini with imputed rent is 4,4% lower in 2013, and falls 0,2 pp more from 2003 to 2013
- 2) Mean income with imputed rent is 18,1% higher in 2013, but rises also 4,6% more from 2003 to 2013