

Conceptual Debates and Challenges in Measuring Social Inequality

Francois Bourguignon

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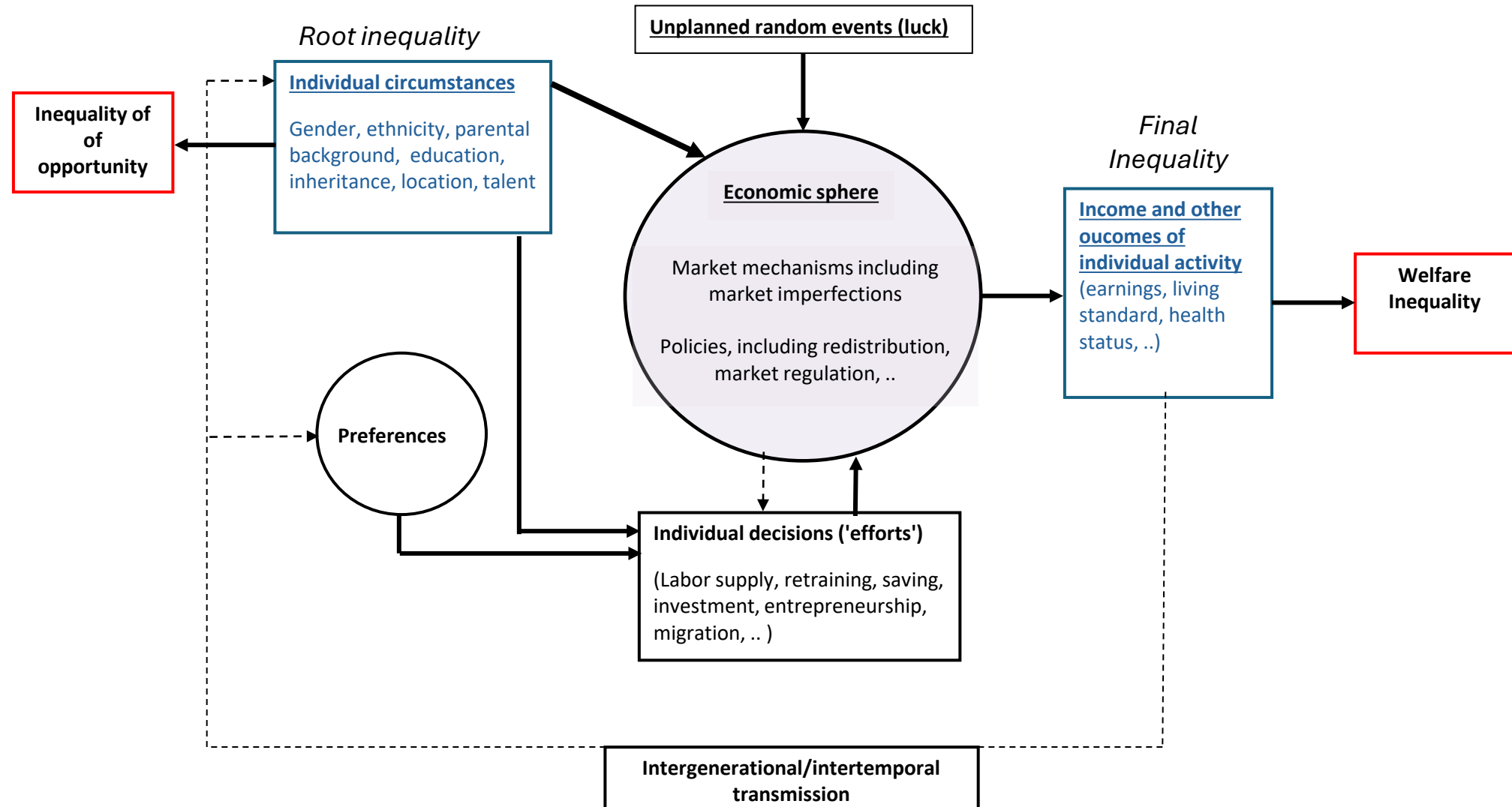
Inequality: the need to go beyond the Gini coefficient of incomes

- Inequality debate, and measurement, mostly focused on Gini coefficient of 'equivalized' household disposable income (EDI) distribution
- Such a focus is reductionist:
 - There are many dimensions other than income in the social evaluation of individual welfare (e.g. market income, wealth, health, education, security, ...)
 - EDI inequality is itself the result of many other types of inequality (education, gender, race, labor earnings, the progressivity of taxes and benefits, ..)
 - According to the 'fairness' principle, only the involuntary part (opportunities) of income inequality should be taken into account, the voluntary part (individual efforts) being irrelevant
 - From a policy point of view, it tends to put the emphasis on redistribution as a way of reducing inequalities rather than other instruments
- Proper social welfare evaluation requires adding other indicators, including other inequality indicators, to the income Gini:
 - A 'dashboard' rather than a single dial!

Outline

1. The complex determinants of welfare inequality and the role of intermediate inequalities
2. The issue of the public perception of inequality
3. Inequality of opportunity vs. inequality of outcome
4. The conceptual difficulty of measuring multidimensional inequality
5. Towards a dashboard approach to social inequality measurement

1. The complex determinants of income inequality and the role of intermediate or root inequalities



2. The issue of the perception of inequality

- Given the many dimensions of inequality, the way the public opinion perceives the level and change in inequality is unclear
- Data are scarce, but they essentially show a lack of significant relationship between the '*attitude*' towards inequality and the actual level of inequality
- The same lack of relationship is observed with the perception of the variation of inequality over time
- Do people have in mind a different definition of inequality – and not necessarily the same – or simply misestimate income inequality ?
- Under-researched issue because of the lack of adequate data



Perceived and actual (income) inequality in a sample of countries

Source:
Haddon and
Wu (2022)

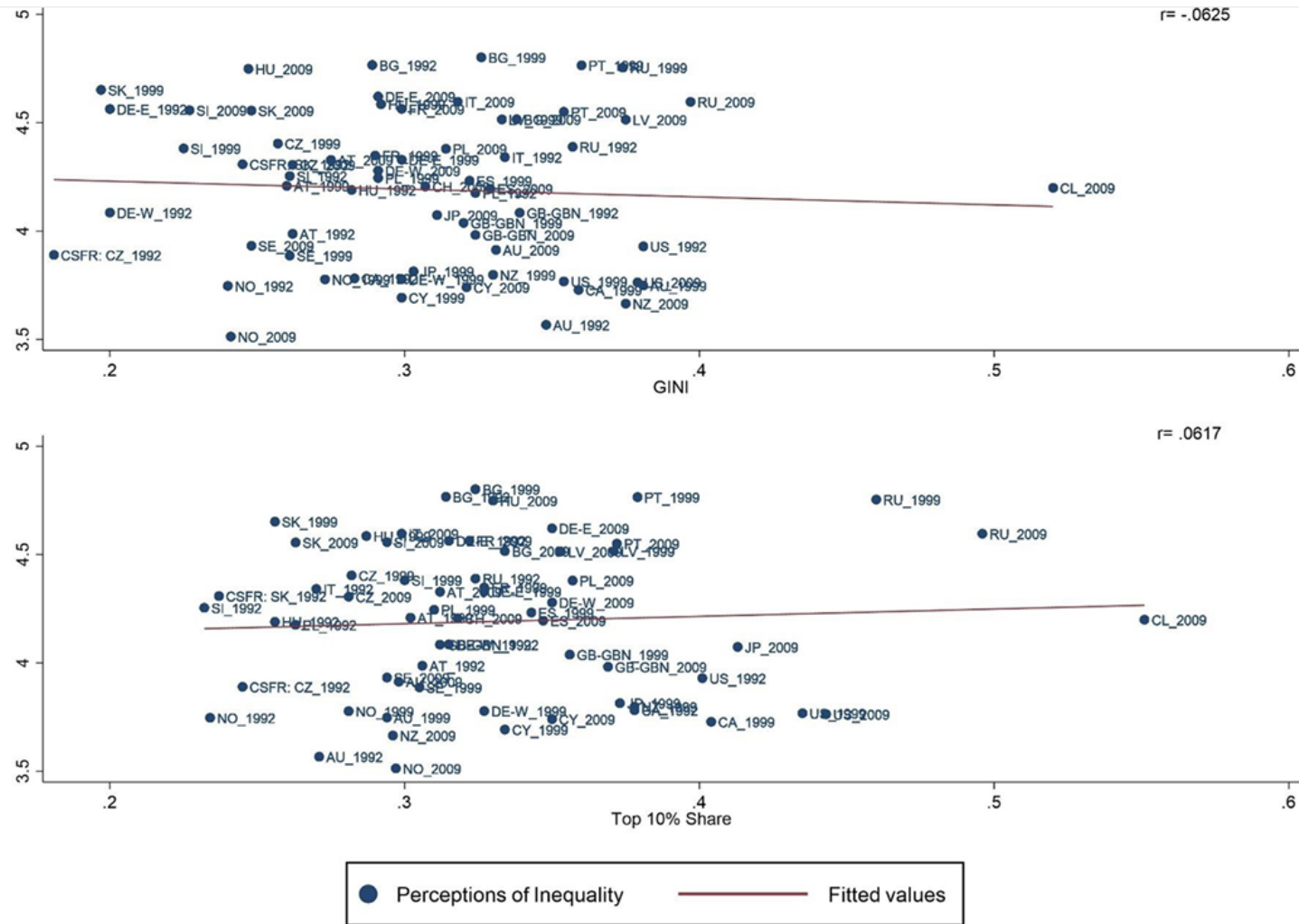


Figure 2. Country-year level scatterplot between actual income inequality and perceptions of inequality.

3. Inequality of opportunity vs. inequality of outcomes (income)

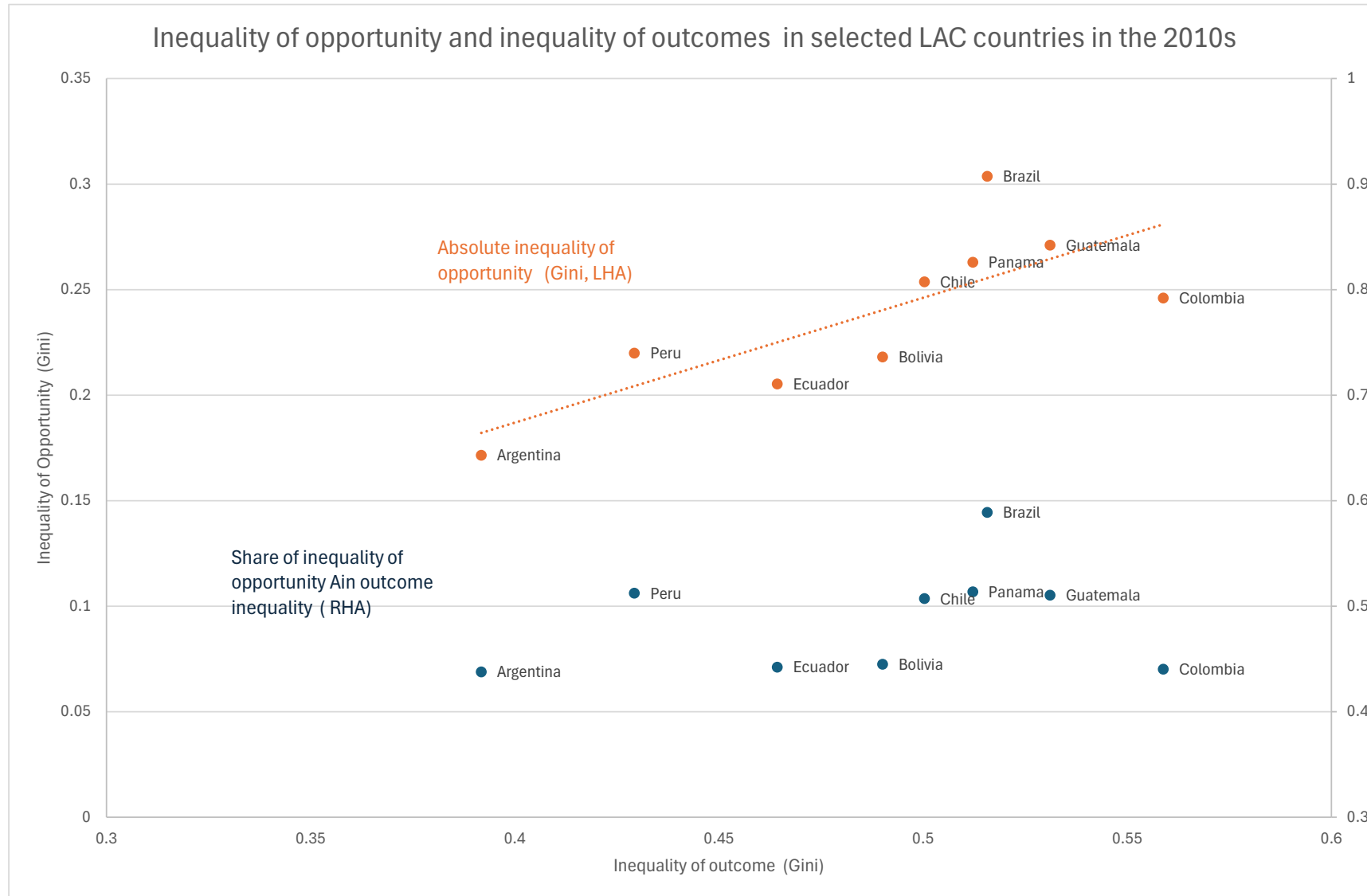
- Old philosophical debate about social justice in moral philosophy ('fairness' vs. 'equality') and policy
- Equality of opportunities: individual welfare inequality results should solely result from individuals' efforts and talent (meritocracy), not involuntary circumstances
 - Policy must equalize circumstances – 'level the playing field' - not redistribute results, which would disincentivize individual efforts and make society inefficient
- Egalitarianism seeks to make the distribution of income/welfare more equal by redistributing outcomes, possibly at the cost of economic efficiency
- Practically, the difference is blurred:
 - Egalitarianists are also in favor of equalizing opportunities
 - Equalizing opportunity requires resources, which are to be found in the taxation of results.
 - Taxing outcomes is also compensating partly for differences in circumstances
- Analytically, these are simply two strongly related aspects of inequality to be simultaneously mobilized in inequality-reducing strategies

Measuring inequality of outcomes and of opportunity

- Inequality of outcomes: data available in most countries – i.e. household or labor-force surveys, or income tax returns – even though not exhaustive
 - Numerous international databases of income inequality measures (WIID, PIP, WID, LIS, ..) – Cepal, Sedlac for LAC countries.
- Inequality of opportunity: lack or incompleteness of data
 - Outcome inequality among sociological 'types' (ethnicity, gender) – mean income gap or more elaborate measures (Roemer)
 - How much observed outcome inequality due to observed 'circumstances' in household surveys (gender, ethnicity, family background, location, ..)
 - # The 'Equal Chances' database
 - Scarce panel data showing parents' and children socio-economic characteristics - sociological literature on intergenerational mobility
 - # The Intergenerational elasticity of earnings (IGE) – proxy in the case of LAC countries

A measure of the inequality of opportunity

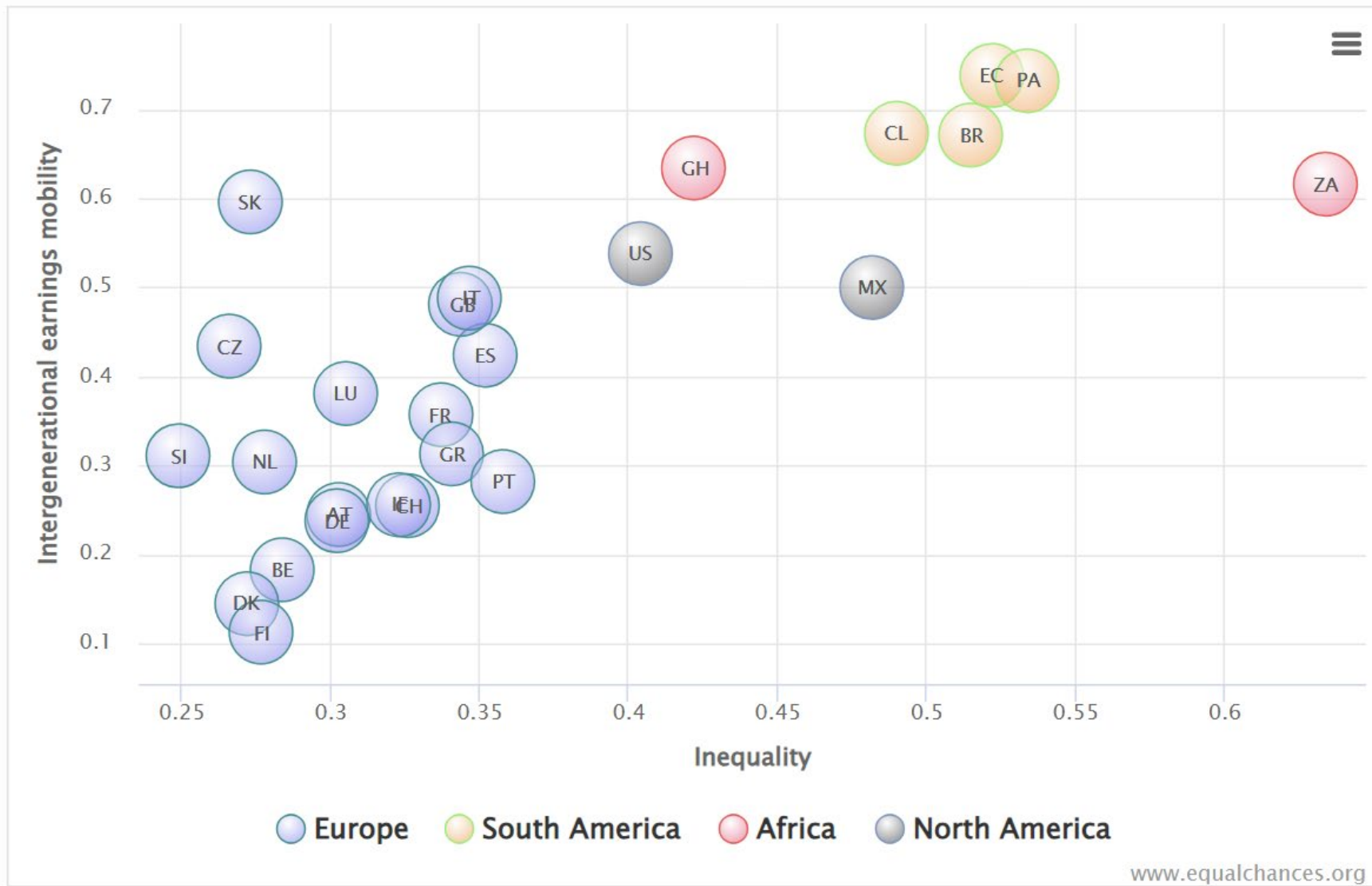
Source: Brunori et al. (2023)



Intergenerational earnings elasticity

(Fathers-sons around 30 – proxies for LAC and SSA countries)

Source: equalchances.org



4. The conceptual difficulty of measuring multidimensional inequality

The multidimensionality issue

- Define welfare as comprising various dimensions: income, health, wealth, ...
- Social planner/observer interested in the inequality of welfare, i.e. the joint distribution of income, health, security, ...
- The difficulty is that the evaluation of inequality depends on the way welfare is assumed to depend on its various components
- Independence case: the marginal welfare of more of one component does not depend on how much of the other components is available:
 - Inequality of welfare depends solely on the inequality of its components
- Non-independence: are the components 'complements' or 'substitutes' ?
 - Complements: the marginal welfare of one component increases with more of another component

A simple intuitive example with income and health

(Atkinson and Bourguignon, 1985)

Two components: income and health

1. Welfare independence: the marginal welfare per unit of additional income does not depend on your health
 - Welfare inequality depends only on the inequality of income and that of health, the correlation between income and health does not matter
 2. Income and health are complements, i.e. the marginal welfare per unit of additional income increases with your health :
 - Correlation matters: more correlation less inequality
 3. Income and health are substitutes, i.e. the marginal welfare per unit of additional income decreases with your health :
 - Correlation matters: more correlation more inequality
- Other assumptions needed and the problem quickly intractable when number of dimensions increases

5. Towards a dashboard approach to social inequality measurement

- Two other ways of considering multidimensionality
 1. Rigorously decompose inequality of income into root and intermediate inequalities - analytically intractable
 2. Consider various socially relevant dimensions of inequality independently from each other – i.e. dashboard approach:
 - If no indicator worsens and at least one improves, there is unambiguous progress
 - If some improve and some worsen, then value judgments are needed to decide whether there is progress or not
 - BUT what is as important is that the dashboard shows in what direction policy efforts should go

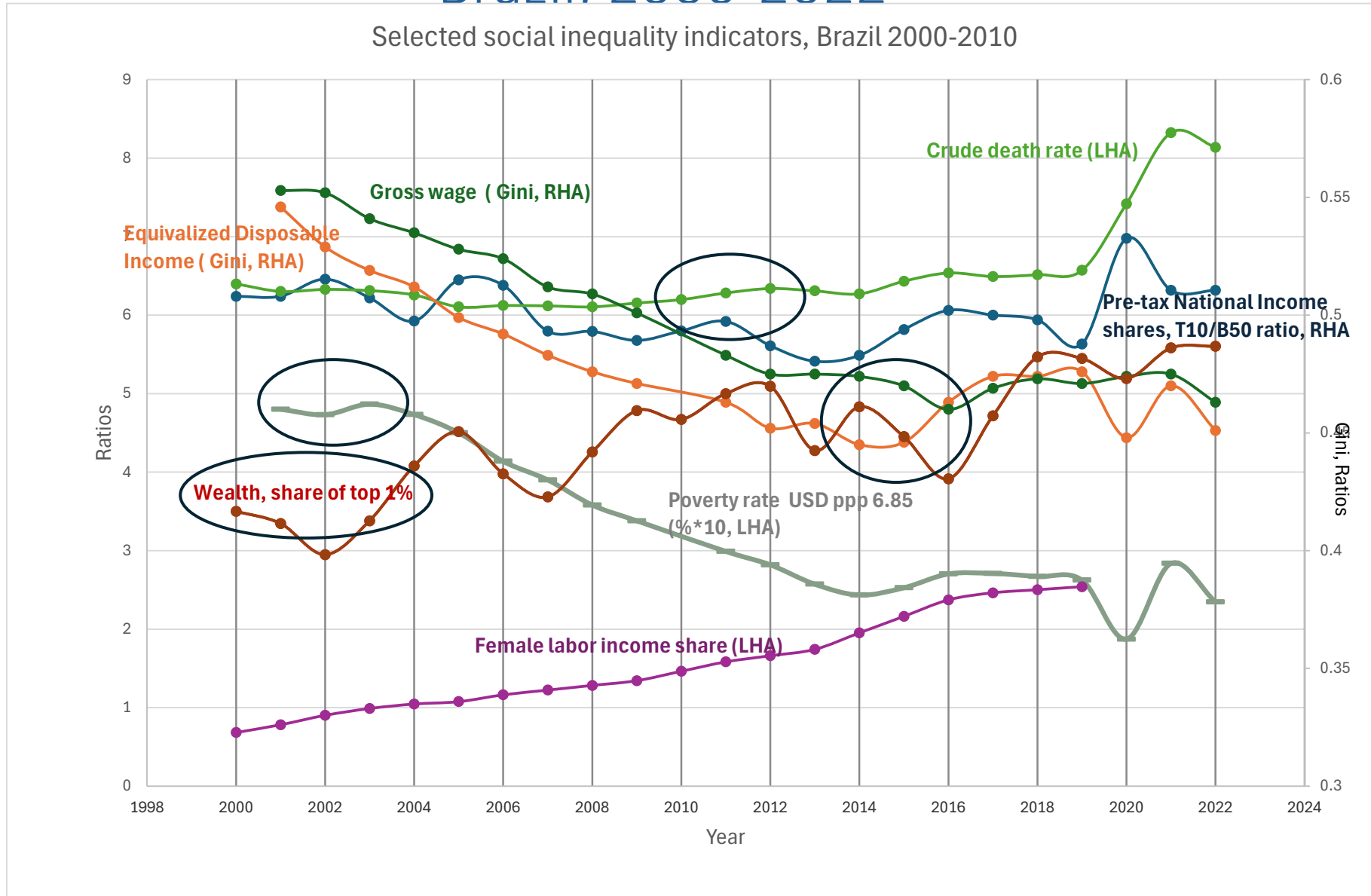
Problem = Indicators needed for a maintaining such a dashboard over time are not always available, even though the data to evaluate them are sometimes accessible

Possible indicators for a social inequality dashboard

- Inequality of equivalized disposable income (survey)
- Inequality of equivalized market income (survey)
- Inequality of labor income
- Pre-tax national income top shares (WID)
- Inequality of opportunity (how much inequality due to gender, ethnicity and family background)
- Inequality of wealth
- Inequality of school achievements among children (PISA, ..)
- Poverty (absolute, multidimensional)
- Employment and underemployment rates across social groups
- Health disparity indicator (differential life expectancy, death rate)
- Gender disparity

Tentative (incomplete) social inequality dashboard

Brazil. 2000-2022



Needed enhancement of data sources

- Inequality of opportunities requires questions on family background in standard surveys
- Wage inequality, overall and by gender and ethnicity can be estimated annually based on household or labor force surveys
- Some thought to be given to the most adequate health inequality indicator
- More sociological oriented indicator needed – occupational group, formal/informal, ...
- Education indicator missing (Pisa-type rather than inequality of years of schooling in the adult population)
- None of these difficulties is unsurmountable!

Conclusion

- My plea is not for the replacement of the present master inequality indicator, i.e. the Equivalized disposable Income (EDI) Gini (or another inequality measure)
- It is for adding to it a combination of other inequality, or inequality-related indicators with two goals in mind:
 - a) Accounting for other income and non-income dimensions of social inequality
 - b) Identifying the sources of change in the EDI Gini and possibly remedying them
- Many indicators are available or can be produced regularly out of existing data (household and labor force surveys)
- But several important indicators (e.g. Inequality of opportunity) are only available at irregular times
 - It would not take much to make them available on a regular basis

Thank you