

Fiscal Policy and Equalizing Opportunities: Addressing Methodological Hurdles

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Outline

- Commitment to Equity Project: Results
- Methodological Issues
- Main questions

Commitment to Equity (CEQ) Project

- Inter-American Dialogue and Tulane University's CIPR and Dept. of Economics.
- Currently: 12 countries
- 6 finished: Argentina (2009), Bolivia (2007), Brazil (2009), Mexico (2008), Peru (2009) and Uruguay (year of HH survey)
- 6 in progress: Chile, Colombia, Costa Rica, El Salvador, Guatemala, Paraguay

References

- Lustig, Nora (coordinator). Fiscal Policy and Income Redistribution in Latin America: Challenging the Conventional Wisdom, Argentina: Carola Pessino; Bolivia: George Gray Molina, Wilson Jimenez, Verónica Paz, Ernesto Yañez; Brazil: Claudiney Pereira, Sean Higgins; Mexico: John Scott; Peru: Miguel Jaramillo. , Economics Department, Tulane University, Working Paper. 2011. Revised: Forthcoming.

References

- Lustig, N. and S. Higgins. Fiscal Incidence, Fiscal Mobility and the Poor: a New Approach. Economics Department, Tulane University, Working Paper. 2012.
- Bucheli, M., N. Lustig, M. Rossi and F. Amabile Social Spending, Taxes and Income Redistribution in Uruguay. Economics Department, Tulane University, Working Paper. Forthcoming.

Fiscal Incidence: “Plain vanilla” case

- No modeling:
 - No behavioral responses (or almost none)
 - No inter-temporal dimensions
 - No general equilibrium effects
 - No fiscal sustainability analysis

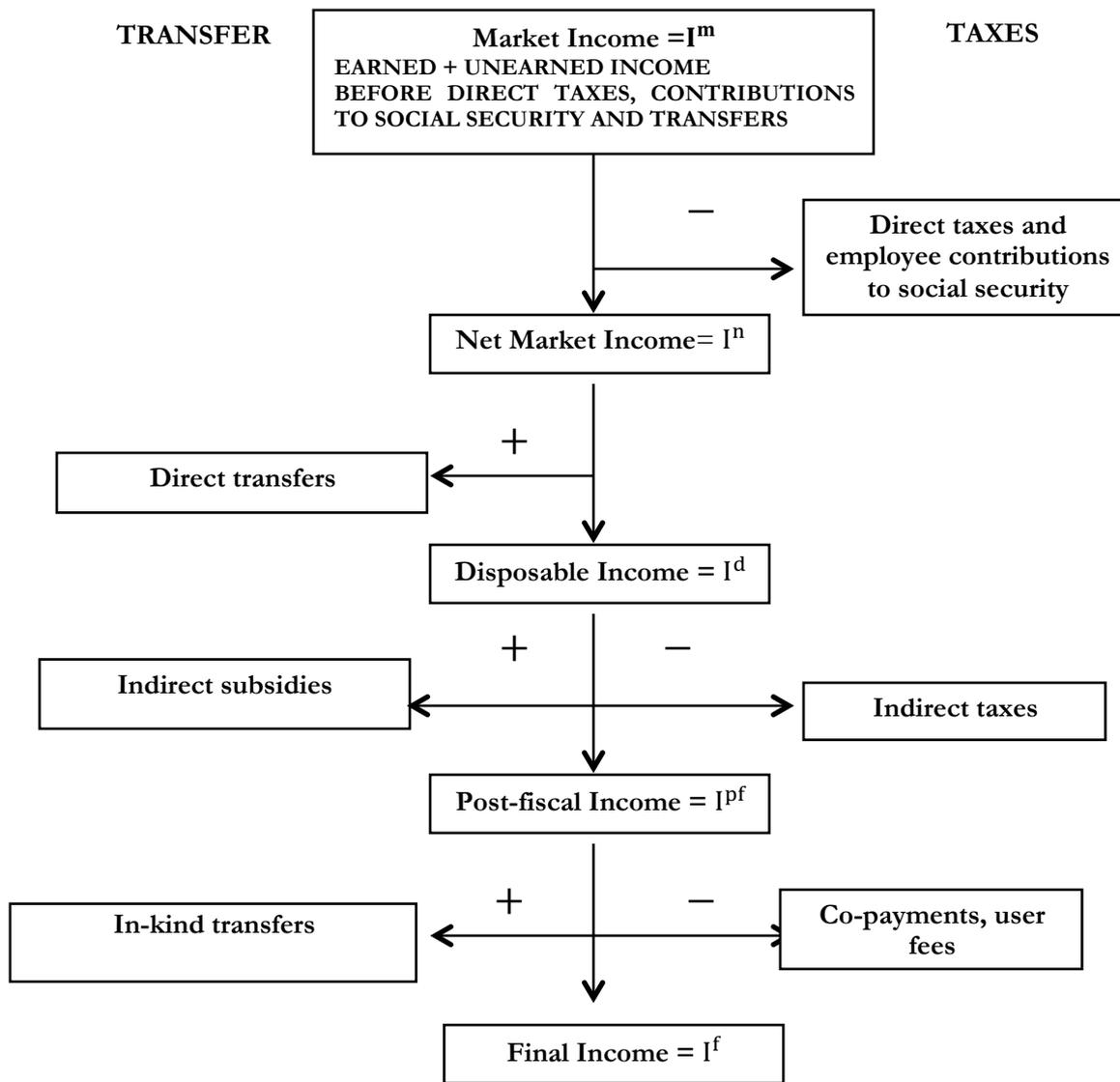
Welfare Indicator: Income per capita

- No adjustment for age, gender or economies of scale
- No adjustment for under-reporting
- Several household surveys in LA only have income data; so, if one wants to compare across countries, income data must be used in all, even in those in which there is data on consumption. But, for the latter, ideally one should do both.

Fiscal Incidence Analysis: Step by Step

- Definition of Income Concepts
- Construction of Income Concepts: calculating taxes & transfers for each household; decile/quintile
- Indicators:
 - Changes in inequality and poverty
 - Incidence by decile/quintile
 - Concentration shares by decile/quintile
 - Kakwani and Reynolds Smolensky
 - Leakages and Coverage
 - Per capita transfers
 - Probit of “excluded”
 - Fiscal mobility (transition) matrices

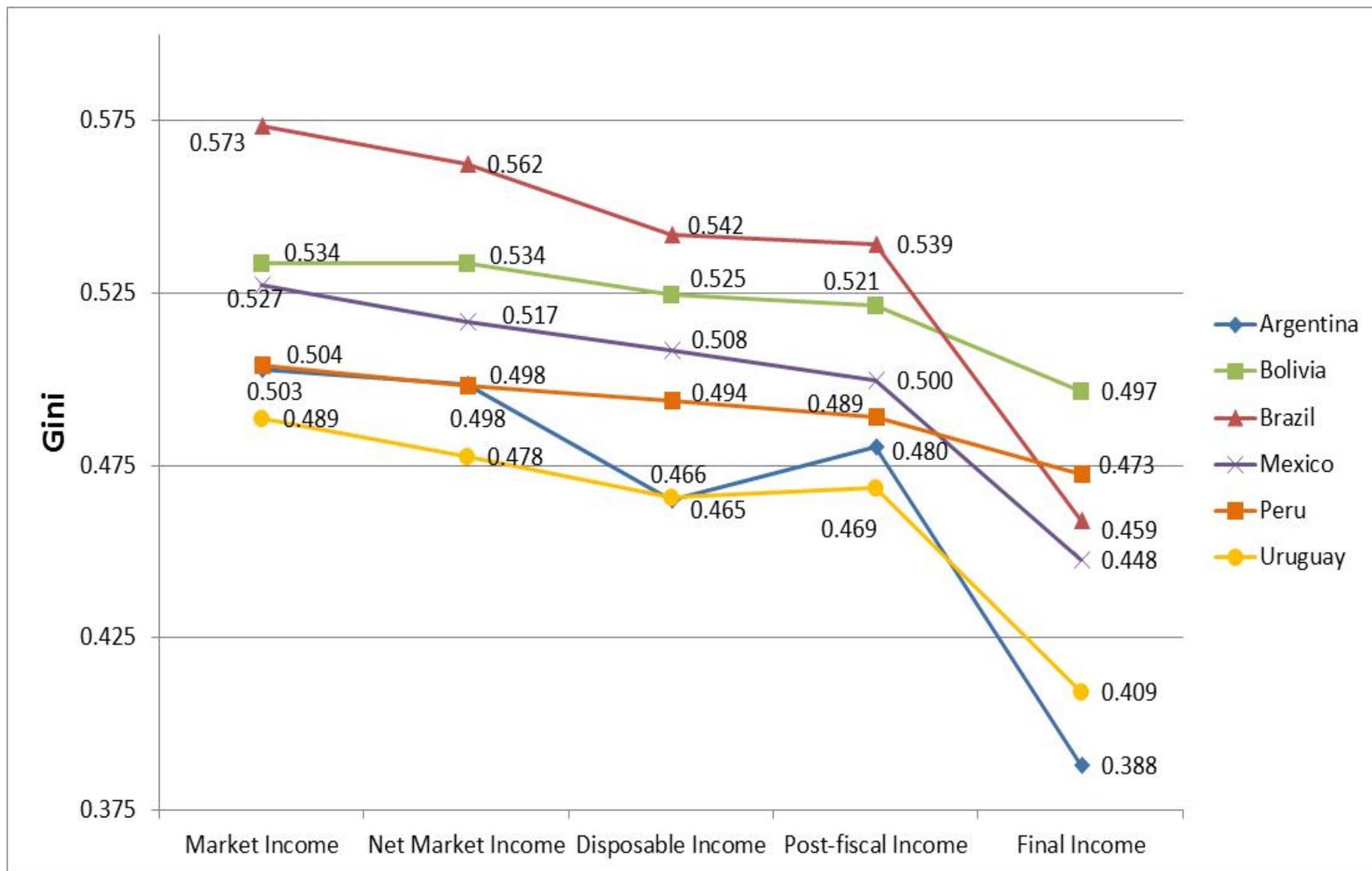
Diagram 1 – Definitions of Income Concepts



Results: A Primer

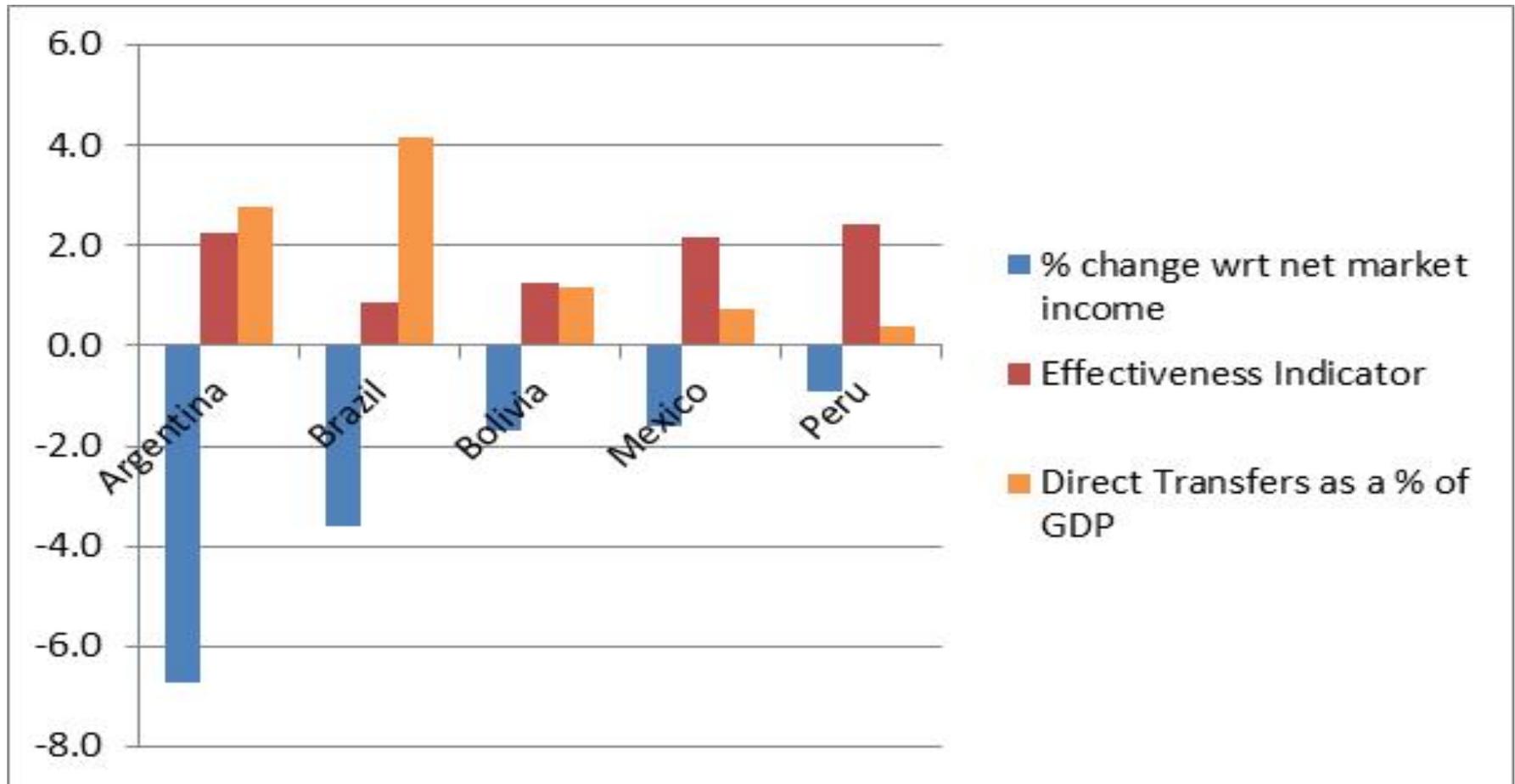
1. Lots of heterogeneity in LA
2. No clear-cut correlation between government size, the extent of redistribution, redistributive effectiveness
3. Direct taxes achieve little in the form of redistribution
4. Contributory pensions are progressive in relative terms in most countries (regressive in absolute terms)
5. Direct transfers reduce poverty the most when coverage of the poor is high and average transfer is close to average poverty gap
6. Indirect taxes can make poor people net contributors to the state and in some cases a significant proportion of the poor poorer

Figure 1 - Gini Coefficient for Each Income Concept: Argentina, Bolivia, Brazil, Mexico, Peru and Uruguay. Benchmark.

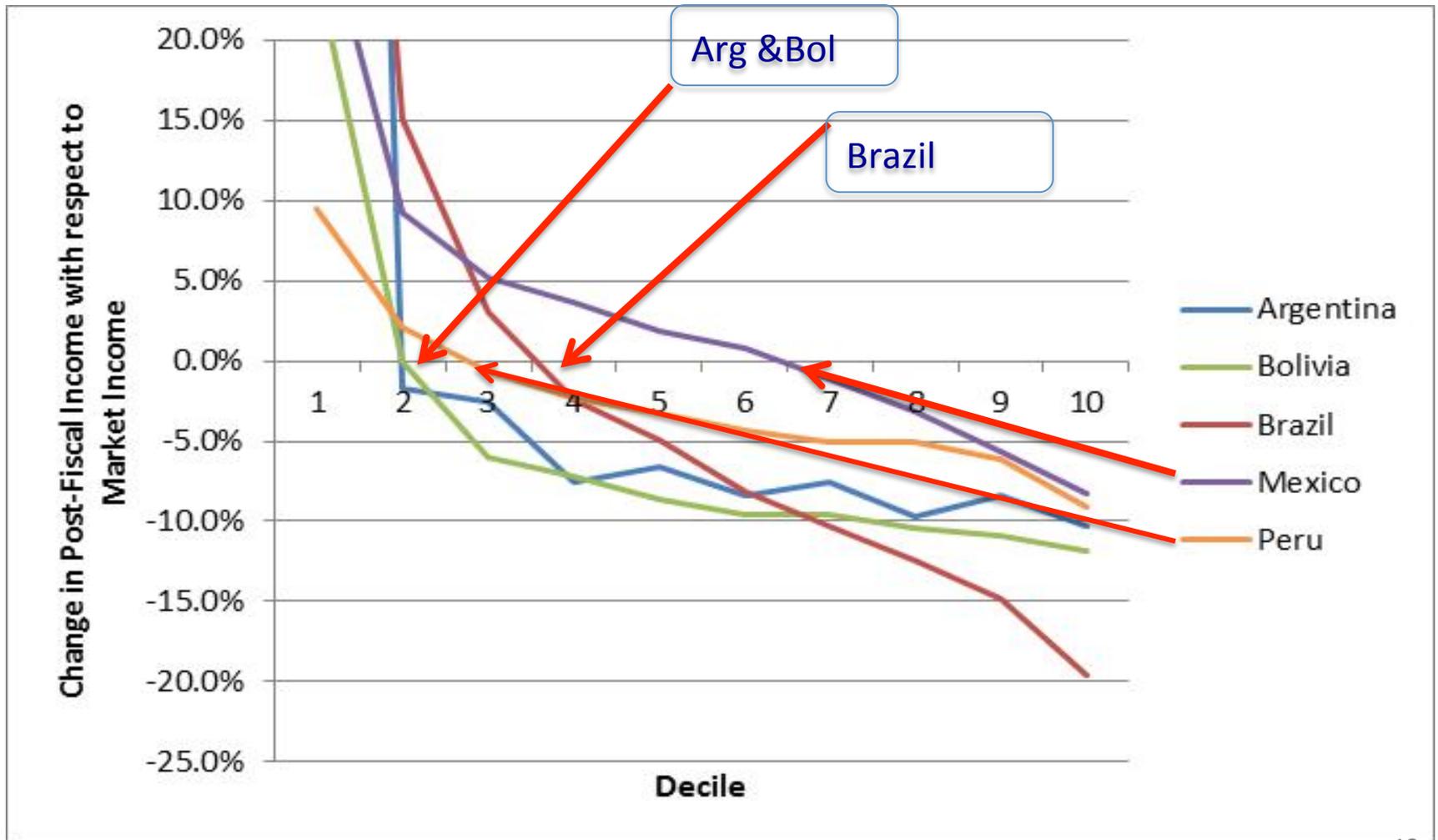


Source: Lustig (coordinator), 2012; for Uruguay authors' calculations based on Encuesta Continua de Hogares (2009) and Nat. Accts.
 Note: For definition of income concepts see text.

Decline in Disp Inc Gini, Direct Transfers and Effectiveness Indicator



Impact of Indirect Taxes



Methodological Issues

- Under-reporting especially at the top
- Households with zero incomes (follow SEDLAC)
- Defining Income Concepts: What is Market Income?
- Calculating taxes and transfers at the household level; deciles/ quintiles, ok to mix?
- Ranking issues; if only net market income available, should HH always be ranked by it?
- Scaling-up issues
- Imputing in-kind public spending

Adding the top; Greater Bs. As., Argentina (Alvaredo and Piketty en López-Calva y Lustig, 2010)

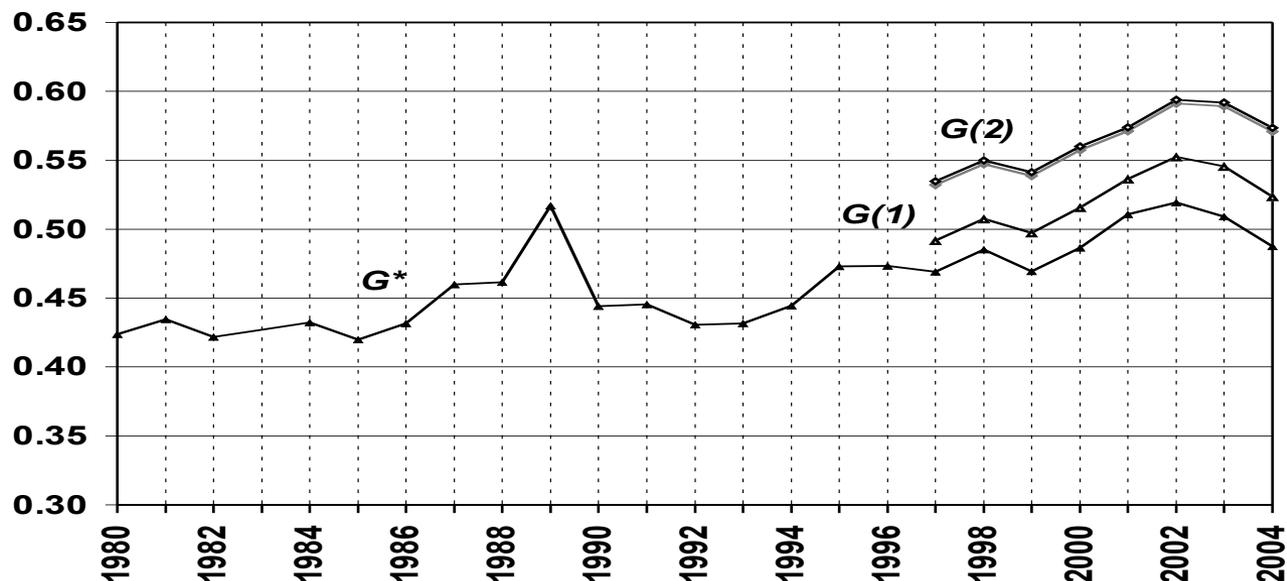


FIGURE 6
Gini coefficient in the Greater Buenos Aires 1980-2004

Notes: The black triangle denotes the Gini coefficient G^* of individual income based on the Greater Buenos Aires household survey, own calculations. Database for 1983 is missing. All results correspond to October surveys, except for 2003 (May). Only income earners with positive income were considered and no further adjustments were applied. The white triangle denotes the Gini coefficient $G(1)AS+(1-S)G^*$, where S is the estimate of the top 0.1% income share from Alvaredo (2010). The white diamond denotes the Gini coefficient $G(2)AS+(1-S)G^*$, where S is the estimate of the top 1% income share from Alvaredo (2010).

Adding the top; Greater Bs. As., Argentina (Alvaredo and Piketty en López-Calva y Lustig, 2010)

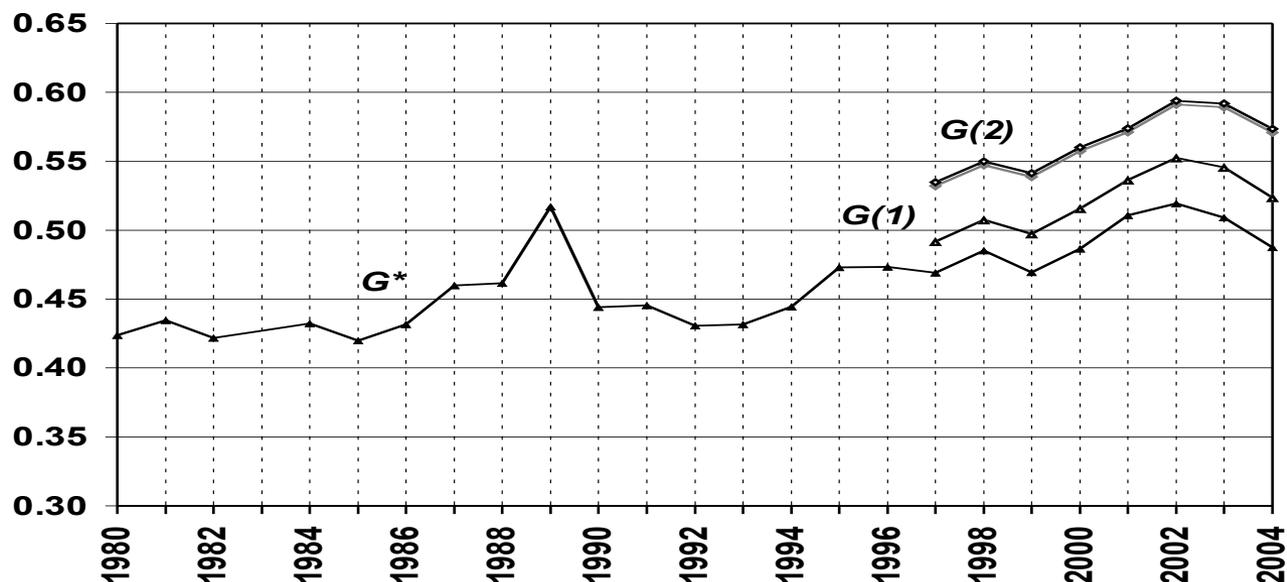


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What is “market income”?

- In addition to the uncontroversial wages and salaries, income from capital and private transfers (e.g., remittances), what about these:
 - Incomes from sales of durables
 - Auto-consumption
 - Imputed rent for owner’s occupied housing
 - Contributory pensions from individualized accounts
 - Contributory pensions from social security

Commitment to Equity Project

- Incomes from sales of durables/NO
- Capital Gains/NO
- Auto-consumption/YES
- Imputed rent for owner's occupied housing/YES
- Alimony, Inheritance and Gifts ???
- Contributory pensions from individualized accounts/YES
- Contributory pensions from social security:
 - Benchmark: YES
 - Sensitivity Analysis: NO

What is “Net Market Income”?

- Market Income minus Direct Taxes and Contributions to Social Security (Payroll Taxes)
- But, contributions to social security:
 - Benchmark: contributions going to pension, are NOT subtracted; all the other contributions are
 - Sensitivity Analysis: all contributions to social security are subtracted

Methodological Issues

- Under-reporting especially at the top
- Households with zero incomes (follow SEDLAC)
- Defining Income Concepts: What is Market Income?
- Construction of income concepts/Calculating taxes and transfers at the household level; deciles/ quintiles, ok to mix?
 - Ranking issues; if only net market income available, should HH always be ranked by it?
 - Scaling-up issues; totals from public accounts by tax category/program; only for inequality and incidence
 - Imputing in-kind public spending: education, health; public goods (e.g., infrastructure)?

Construction of Income Concepts/ Calculating Taxes & Transfers

- Unfortunately, it is not possible to construct income concepts directly from household surveys
- Household Surveys in LA are quite heterogeneous:
 - Some report income and not consumption
 - Some do not report autoconsumption
 - Some do not report owner's occupied housing rent; they do not have the information to run hedonic regressions

Construction of Income Concepts/ Calculating Taxes & Transfers

- Even more importantly:
 - Not clear if reported income is before or after taxes. SEDLAC database assumes that employees' income is net of taxes and contributions to social security and self-employment and capital incomes are before taxes and transfers
 - Not always clear if people include government transfers in the income they report (which we usually take as “market” income)

Construction of Income Concepts/ Calculating Taxes & Transfers

- Data on direct taxes, contributions to social security, government transfers, consumption (for indirect taxes and subsidies), use of government health services may be imperfectly captured or not captured at all

Options to Construct Income Concepts

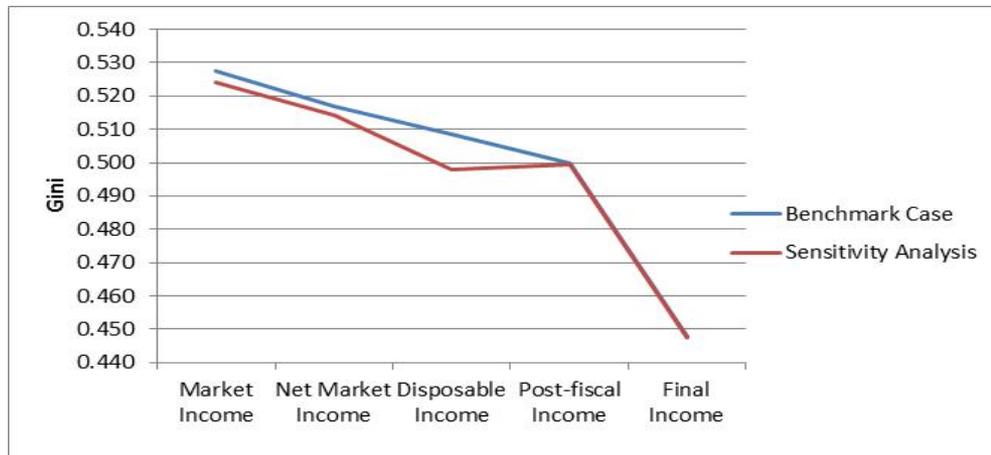
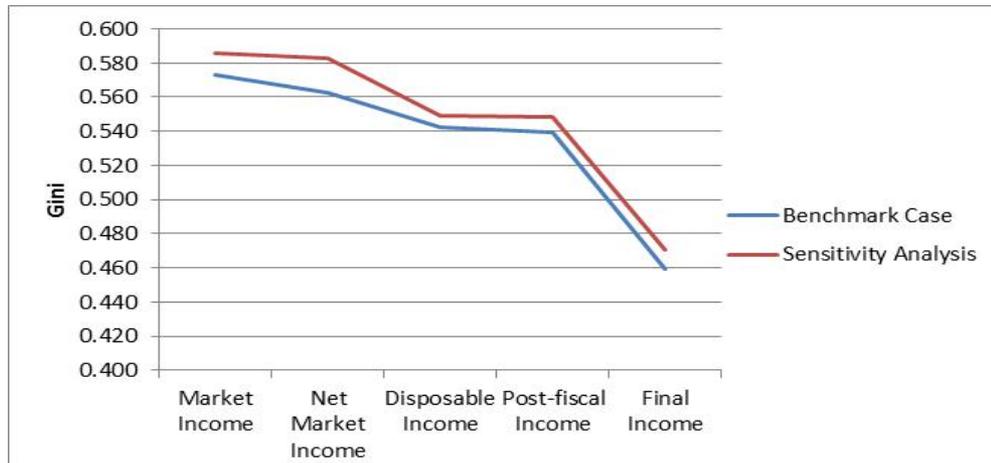
- Direct Identification Method
- Inference Method
- Simulation Method
- Imputation Method
- Alternate Survey
- Secondary Sources Method

	<u>Argentina</u>	<u>Bolivia</u>	<u>Brazil</u>	<u>Peru</u>	<u>Urugu</u>
	2009 (urban only)	2007	2009	2009	2009
Consumption Data?	No	Yes	Yes	Yes	No
Data on Autoconsump	No	Yes	Yes	Yes	Yes
Data on Imputed Rent	No	Yes	Yes	Yes	Yes
Data on Direct Taxes	No	n/a	Yes	Yes	No
Data on Contributions to Social Security	No, although has data on who pays social security taxes	Yes	Yes	Yes	Yes
Data on Contributory Pensions	Data on pensions is grouped together with non-contributory pensions	Yes (AFP)	Yes	Yes	Yes

	<u>Argentina</u>	<u>Bolivia</u>	<u>Brazil</u>	<u>Peru</u>	<u>Uruguay</u>
Data on Non-contributory Pensions	Has to be inferred from total pensions	Renta Dignidad)	Yes (BPC)	-	Yes
Data on Other Cash Transfers (specify which ones)	Yes (Jefes y Jefas de Hogar, and then has another category that groups all other Government monetary transfers)	Bono Juancito Pinto, Beneméritos de la Guerra del Chaco (war veterans), Bono Juana Azurduy	Yes (Bolsa Familia, Bolsa Escola, Bolsa de Estudio, Erradicação do Trabalho Infantil, Public Scholarships, Special Circumstances Pensions, Programas de Renda Minima, Auxílios	Yes. Juntos.	Asignaciones Familiares, Pensiones no contributivas
Data on Unemployment Insurance Benefits	Yes	n/a	Yes	-	Yes
Data on Direct Transfers In-Kind (e.g., food transfers)	Has data on whether the household received transfers in kind, but not the amount	Desayuno Escolar, Program de Atención a niños y niñas menores de 6 años (PAN), Post literacy program " Yo si puedo"	No (uncommon in Brazil)	Yes	Tarjeta Uruguay Social, Comedores y merenderos

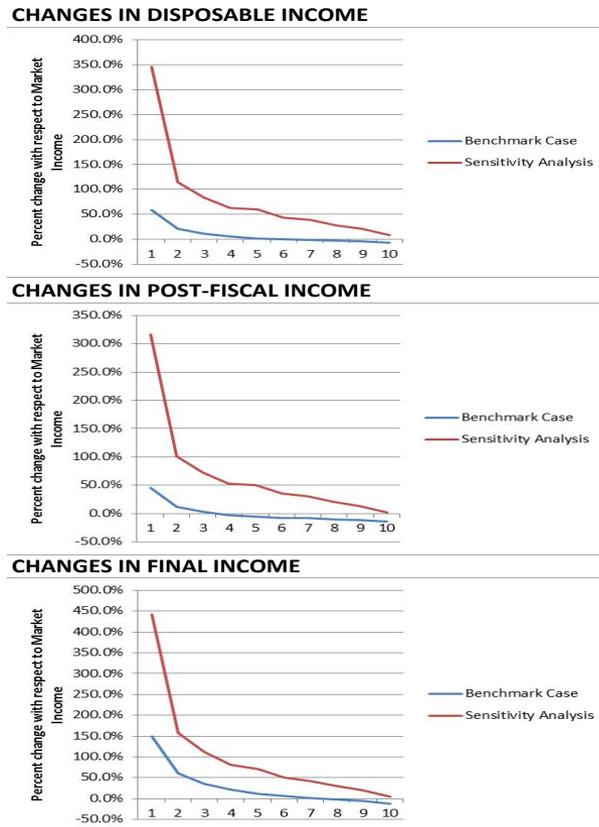
	Argentina	Bolivia	Brazil	Peru	Uruguay
Data on use of public education	Yes, if they attend public school	Yes	Yes	Yes	Yes
Data on use of public health facilities	Yes, if they have health insurance or they have to be attended in hospital, but not quantity of use	Yes	Not in POF, but yes in PNAD 2008 which we use for health calculations	Yes	No
Data on what service was received at public health facilities	No	Yes	Yes in PNAD 2008	Yes	No
Data on coverage by public health insurance schemes	Yes, but not quantity or which service	Yes	Not existent in Brazil	Yes	Yes
If none of above, what data is available on health to measure in-kind health transfers?		n/a	--	-	Public health coverage
Data on benefits from or use of housing and urban programs	No, it is inferred from external sources	No	No	No	No

How sensitive are results to the placement of contributory pensions? Brazil vs. Mexico



How sensitive to placement of contributory pensions: Uruguay incidence

Figure 4 - Changes in Income by Decile



Source: authors' calculations based on Encuesta Continua de Hogares (2009) and Nat. Accts.

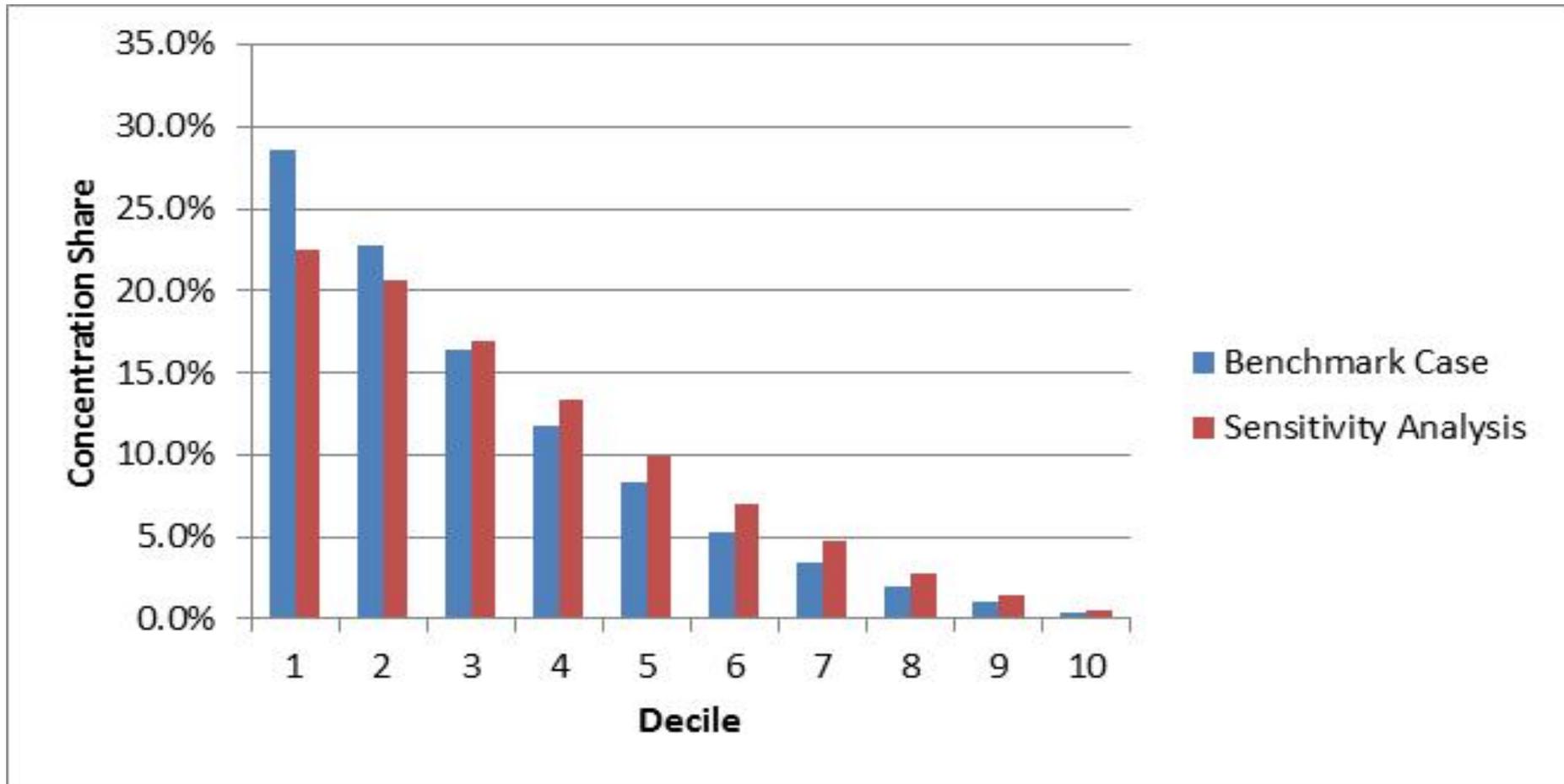
Notes:

For definition of income concepts see text.

Benchmark: contributory pensions are included in market income.

Sensitivity: contributory pensions are treated as government transfers.

How sensitive to placement of contributory pensions: Uruguay concentration shares CCTs



Main Questions

- Income vs. Consumption; “either or”, or “both”?
- How to deal with under-reporting at the top? Use tax returns data (Alvaredo for Colombia)
- What should be included under market income?
- How should owner’s occupied imputed rent be estimated? (we used 10% of mket. Income)
- Contributory pensions; “with” and “without”, other alternatives?

Main Questions

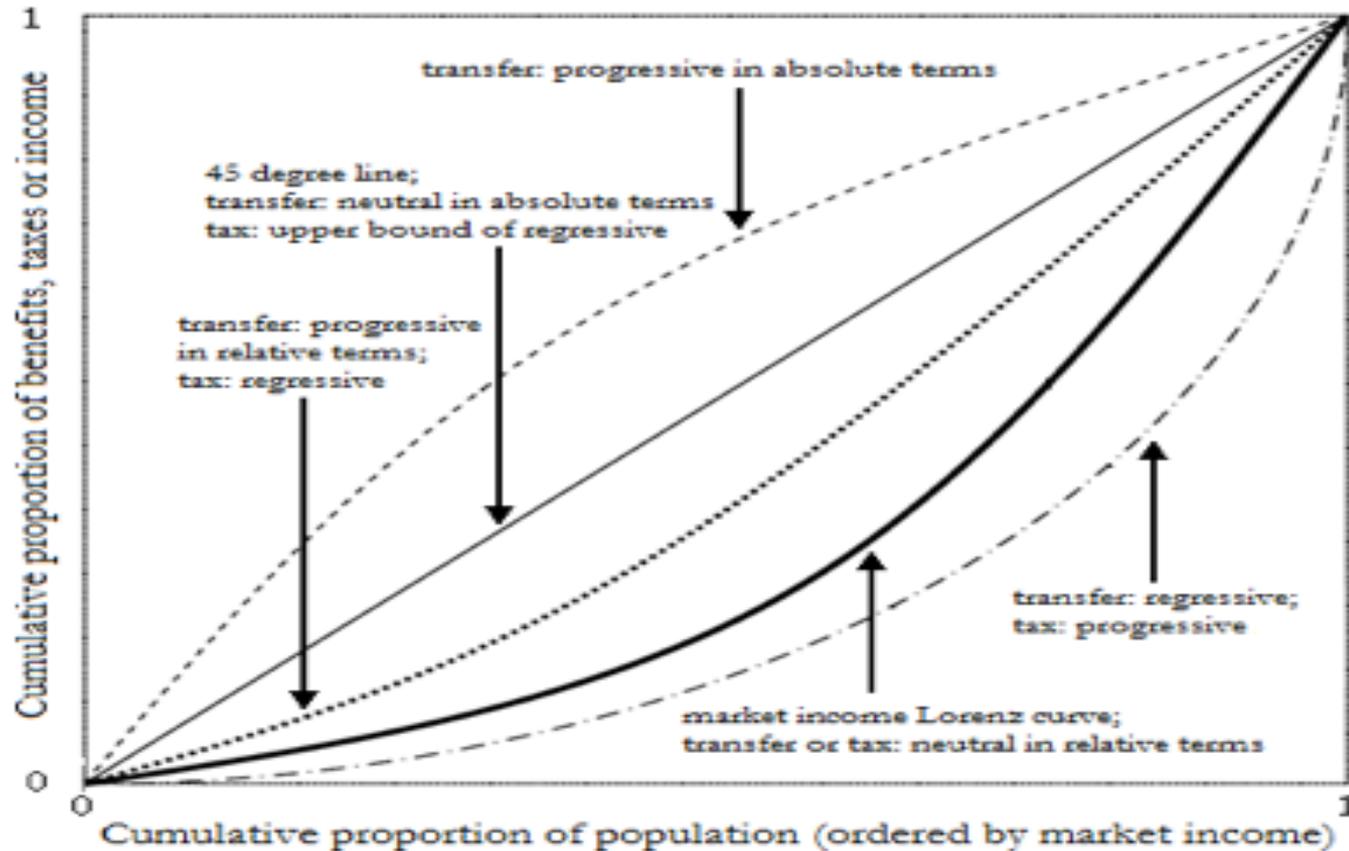
- Mixing methods to estimate taxes and transfers; e.g., at household level with decile info; acceptable?
- Ranking by which income concept? problem of heterogeneous surveys
- Scaling-up: category by category? Full amounts in public accounts?
- How to take into account tax evasion? direct taxes; indirect taxes

Main Questions

- How should in-kind government transfers be calculated?
 - Education
 - Health
 - Public goods: e.g., roads; sewage and sanitation; etc.

Main Questions

- Absence of Conventions on Progressiveness/
Regressiveness



Main Questions

Modeling:

- Behavioral responses: consumption and labor supply
- Inter-temporal effects
- General Equilibrium Effects
- Fiscal Sustainability

Main Questions

Costing “Opportunities for All”:

- Plain Vanilla case: CEQ calculates gaps straightforwardly (without scaling-up for income poverty measures)