Pro-Poor Growth, Social Policies and Labour Market Linkages

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*12 These Slides
http://www.cps.fgv.br/cps/bd/curso/12-Pro-Poor-Growth-Social-Policies-and-Labour-Market-Linkages.pdf

** 13 Paper
http://www.cps.fgv.br/cps/bd/curso/13-Linkages-Between-Pro-Poor-Growth-Social-Programsand-Labor-Market-The-Recent-Brazilian-Experience.pdf

****14 Technical Appendix
http://www.cps.fgv.br/cps/bd/curso/14-Linkages-between-Pro-Poor-Growth-Social-Programmes-and-Labour-Market-The-Recent-Brazilian-Experience.pdf

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Social Welfare Function
What is your favorite inequality measure? (and social welfare function?)

- Money-metric social welfare function is derived as:

$$W = u(x^*) = \int_0^\infty u(x)w(x)f(x)dx$$

where
- x^* is the equally distributed equivalent level of income
- $u(x)$ is the utility function, increasing in x and concave
- $w(x)$ is the weight given to the utility of individual with income x
    - *captures the relative deprivation suffered by individuals (decreasing function of x)*

    - *should satisfy:* $\int_0^\infty w(x)f(x)dx = 1$

- Define $\quad w(x) = 2[1 - F(x)] \quad$ and $\quad u(x) = log(x)$

- Social Welfare Function used in this paper is thus

$$log(x^*) = 2\int_0^\infty [1 - F(x)] log(x) f(x) dx$$

where x^* is the money-metric social welfare.

- $\quad \mu = \int_O^\infty xf(x) dx$ is the mean income

- ($\mu - x^*$) is a loss of social welfare caused by inequality.

Inequality Measure

Decomposition a la Atkinson (1970)

$$log(x^*) = log(\mu) - log(I)$$

Derived Inequality Measure) has a log utility and Weights a la Gini = Lini - a new inequality measure

$$log(I) = 2\int_0^\infty [1 - F(x)][log(\mu) - log(x)] f(x) dx$$

- Remember the Social Welfare Function used in this paper was

$$log(x^*) = 2\int_0^\infty [1 - F(x)] log(x) f(x) dx$$

Pro-Poor Growth (or today Inclusive Growth)

- Growth rate of mean income: $\gamma = \Delta Ln(\mu)$

- Growth rate of social welfare: $\gamma^* = \Delta log(x^*)$

- Growth rate of inequality: $g = \Delta log(I)$

where g has a direct intuitive interpretation as the

- Pro-poor growth rate (or inclusive growth rate):
- gain (or loss) of social welfare growth rate due to an increase (or decrease) in inequality. $\gamma^{*} = \gamma - g$
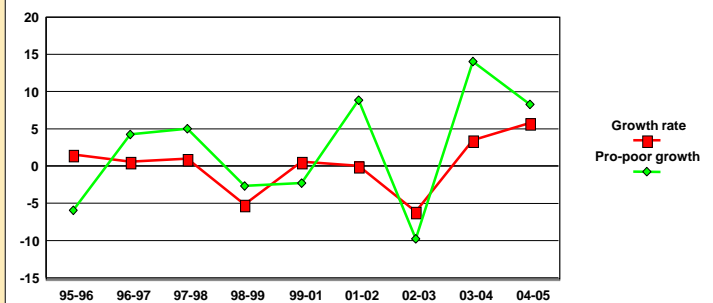- *For example*, if mean growth rate is 5% but the pro-poor growth rate is 3%, 2% social welfare growth rate is lost due to an increase in inequality.
- It measures inequality changes using social welfare changes as its numeraire – convenient.

Growth rate of per capita real income, 2002-03

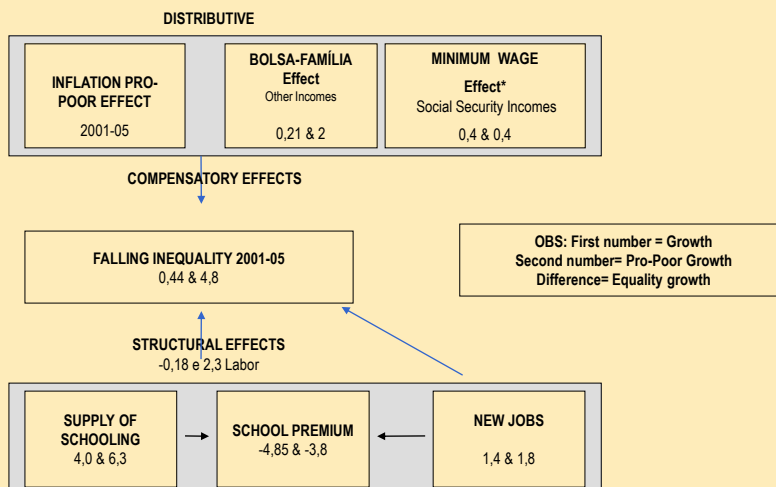
Percentiles
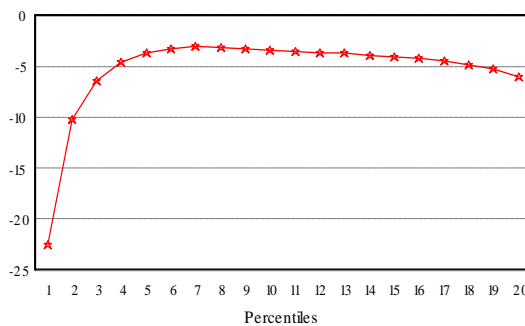
Pro-poor growth and Growth in Brazil: 1995-2005

Growth rate

Pro-poor growth

**Socio-Demographic Trends

Means

	Children 0-15 years	Adults 16-65 years	Elderly 66 yrs & beyond
Level 1995	0.347	0.596	0.057
Pro-Poor SWF	*0.39*	*0.54*	*0.04*
Δ1995-2004	-1.960	0.830	1.660
Pro-Poor SWF	*-1.64*	*0.96*	*-0.67*

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DISTRIBUTIVE

INFLATION PRO-POOR EFFECT 2001-05	BOLSA-FAMÍLIA Effect Other Incomes 0,21 & 2	MINIMUM WAGE Effect* Social Security Incomes 0,4 & 0,4

COMPENSATORY EFFECTS

FALLING INEQUALITY 2001-05
0,44 & 4,8

OBS: First number = Growth
Second number= Pro-Poor Growth
Difference= Equality growth

STRUCTURAL EFFECTS
-0,18 e 2,3 Labor

SUPPLY OF SCHOOLING 4,0 & 6,3	→ SCHOOL PREMIUM -4,85 & -3,8 ←	NEW JOBS 1,4 & 1,8

* With adverse effects on formal employment and on overall labor income based poverty measure **Neri (2007)**