

DATT_RAVALLION DECOMPOSITION OF POVERTY BRAZIL 1985 -1995.

We apply Datt and Ravallion (1992) decomposition methodology of poverty changes into a balanced growth component, a change in inequality component and residual term for the 1985-95 period. This decomposition throws light in what is driving the poverty change process discussed last subsection. First, we describe the methodology then we apply it to the Brazilian case.

We confine attention to poverty measures which can be fully characterized in terms of poverty line, the mean of income of the distribution, and the Lorenz curve representing the structure of relative income inequalities. The poverty measure P_t at date (or region/country) t is written as $P_t = P(z/m_t, L_t)$ where z is the poverty line, m_t is the mean income and L_t is a vector of parameters fully describing the Lorenz curve at date t . The level of poverty may change due to a change in the mean income m_t relative to the poverty line, or due to a change in relative inequalities L_t .

The growth component of a change in the poverty measure is defined as the change in poverty due to a change in the mean while holding the Lorenz curve constant at some reference level L_r . The redistribution component is the change in poverty due to a change in the Lorenz curve while keeping the mean income constant at the reference level m_r . A change in poverty over dates t and $t+n$ (say) can then be decomposed as follows:

$$P_{t+n} - P_t = G(t, t+n; r) + D(t, t+n; r) + R(t, t+n; r)$$

in which the growth and the redistribution components are given respectively by:

$$G(t, t+n; r) \equiv P(z/m_{t+n}, L_r) - P(z/m_t, L_r); D(t, t+n; r) \equiv P(z/m_r, L_{t+n}) - P(z/m_r, L_t)$$

while $R()$ in (2) denotes the residual. In each case, the first two arguments in the parentheses refer to the initial and terminal dates of the decomposition period, and the last argument makes explicit the reference date r with respect to which the observed change in poverty is decomposed.

Poverty changes across different cells characterized by the household head status can be better understood in terms of three close determinants: changes in mean per capita income, changes in the degree of inequality of per capita income and changes in a residual term that captures the interaction between these two terms (not presented here). This simple decomposition between a balanced growth component that affects all agents and a redistributive component allows quite general comparisons of poverty across different societies and time periods. This simple decomposition between a balanced growth component that affects all agents and a redistributive component allows quite general comparisons of poverty across different societies and time periods. This analysis applied to the 1985 and 1995 PNADs reveals that growth explains most of the fall of the head-count ratio observed. Inequality changes tend to increase poverty when either a low poverty line is used or poverty index that attributes more weight to the very poor is used (i.e., P^1 and specially P^2).

Table 1. Poverty in Brazil: Level and Changes, 1985-95										
Poverty Indices		P0	P0	P0	P1	P1	P1	P2	P2	P2
Poverty Line (Multiples)		0,5	1	1,5	0,5	1	1,5	0,5	1	1,5
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Reference Period										
Poverty Level	1985	10,03	30,42	47,01	3,85	11,97	21,01	2,36	6,68	12,32
Poverty Level	1995	11,05	27,68	42,71	5,73	12,45	20,10	4,42	8,07	12,78
Total Poverty Change*	1985 to 1995	1,02	-2,74	-4,31	1,88	0,48	-0,91	2,05	1,40	0,46
Growth Component*	1985 to 1995	-0,41	-0,97	-0,87	-0,12	-0,38	-0,54	-0,06	-0,22	-0,36
Inequality Component*	1985 to 1995	1,48	-1,67	-3,60	2,00	0,80	-0,44	2,11	1,58	0,77
* Adjusted to National Accounts.										

Evolution of the Mean and Inequality of Per Capita Earnings - 1985/95				
Growth Rate		Inequality Measures		
Years	Per Capita GDP	Gini	Theil - T	
1976				
	1,81%			
1985		0,605	0,750	
	0,21%			
1995		0,620	0,799	
Sources: PNAD 76, 85 e 95.				