

Papers on Economic Development

**The Causes of Poverty in Latin America and the Caribbean:
The Role of Political Institutions and Governance**

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I. INTRODUCTION

A large proportion of the 420 million people living in Latin America and the Caribbean (LAC) have begun the Third Millennium living under conditions of poverty. Near 40% of LAC households are poor and 16% extremely poor (CEPAL, 1999.) Poverty is even more widespread and deep in rural areas where 32% of LAC population live and work. Near 55% of rural households are poor and about 33% extremely poor. This is a sad record for LAC --most of its countries constituted themselves as nation states after 1810, under the liberal ideals of equality, liberty and fraternity. Furthermore, all those countries undertook massive economic development programs after WWII many of them financed by the World Bank, the IADB, USAID, UNDP, and many other international agencies and donors.

In this paper, we seek to explain poverty in LAC, by looking at its ultimate causes, which we propose include the nature of political institutions and ethnic differentiation.

In LAC, like in other Third World areas, poverty reduction never was a major policy goal in itself until the beginning of the 1970s. The assumption was that economic development per se will reduce poverty, and economic growth was the development measurement. This was the Indian Congress consensus of the late 1940s, which became so influential on development theory and policy (Waelbroeck, 1999). In LAC, Economic Structuralism proposed economic reforms such as industrial-import-substitution to induce growth and presumably poverty reduction. It also encouraged the land reforms of the 1950s and 1960s, which eventually induced agricultural growth with minimal impact on rural poverty reduction (de Janvry, 1981.)

At the beginning of the 1970s many international agencies and donors supported and financed development projects targeted to the rural poor: among others integrated rural development. Despite the large scale of these programs their impact on reducing rural poverty was relatively minimal (de Janvry, 1981.)

The debt crisis at the beginning of the 1980s, lead to structural adjustments and stabilization policies (Anand and Kanbur, 1993.) Poverty reduction, as a goal, was again

postponed both by necessity and by the proposition that market development will create opportunities for larger groups. These adjustments however had a negative impact on income distribution and poverty conditions. (Altimir, 1994, Székely, 1998, Lusting and Székely, 1999.) .

Since the middle of the 1990s, there has been a renewed interest on poverty reduction. Development professionals, organizations of the civil society, and international donors are demanding that political leaders and international financial agencies consider poverty reduction as a fundamental goal in itself. The present initiatives to reduce poverty of the World Bank (2000), the Inter-American Development Bank, and most recently the IMF, are partially responses to those new perspectives.

II. EXPLAINING POVERTY

Since equal economic opportunities for all, and therefore poverty reduction, never has been the overriding development goal in LAC, since those projects targeted to the poor had a minimal impact, and since LAC government were willing to undertake adjustment policies at the cost of a more unequal distribution of income, what are the basis to assume that the present initiatives will actually reduce poverty in a large scale? This is the fundamental motivation for our research.

The ongoing initiative to reduce poverty in LAC is based on a combination of conceptual frameworks and numerous projects and policy interventions. They are the necessary groundwork, but their contribution to the end will depend on an appropriate diagnostic.

Many studies about poverty are based on microeconomic and measuring techniques. The "decomposition of poverty" methodology, for example, explain poverty by identifying who are the poor, the average income, and the inequality level¹ (Datt and Ravallion, 1992, Foster and Shorrocks, 1991, Kakwani, 1994, Székely, 1998.) Other approaches are based on extensions of conventional economics for explaining how the evolution of inequality is the outcome of the evolution of markets, assets and institutions, overlaid on basic demographic shifts (Kanbur and Lustig, 1999.)

We propose to explain the causes of poverty expanding conventional economic analysis with the concepts of the new institutional economics (Ball and Rausser, 1995, Campos and Nugent, 1998.) In LAC, it is necessary to investigate why governments do not undertake initiatives to reduce poverty, as well as the role of ethnic discrimination on the poverty conditions of some groups.

Structural, long run established poverty conditions in LAC, has resulted from a combination of economic, institutional, and cultural factors (Engerman, Haber and Sokoloff, 1998.) A major explanatory factor of poverty is the lack of earning opportunities both in rural and urban areas. Rural underdevelopment, in particular, is a major factor explaining poverty in rural areas, where a large proportion of LAC population was and still is located.

Rural underdevelopment and lack of response to the needs of the poor, in turn, are associated with political institutions and governance failure in LAC. The development era in Latin America coincided with the Cold War that strengthened the propensity to authoritarian political regimes. Therefore, political representation was limited to small groups and continued to be so even after the ongoing democratization processes. In addition, governance in many countries is not subject to judicially and political enforced accountability. Without wide social representation and with limited accountability, political market places are very underdeveloped. Politicians and bureaucrats do not have incentives to propose poverty reduction policies or to implement them.

Finally, the demographic composition of LAC populations is very complex. Contrary to North America, indigenous populations in LAC have been relatively large. They have always resisted the European colonization, in particular harsh exploitation of labor and occupation of their lands. Even after 500 years, since the Iberian conquer, they maintain their languages and cultures. Under these conditions, their principal access to political and economic opportunities has been intermarried --the *mestizo* way. Most of the economic and social literature about LAC, however, has downplayed the role of ethnicity on asset and income distribution. Since most indigenous people have been located in rural areas, their poverty condition has been assumed to result from rural underdevelopment.

In addition to indigenous people, there are large communities of African-Latin-Americans. In some LAC countries, many of them live under conditions of poverty. Although in most LAC countries a high-income level allows for their social integration without discrimination, the fact remains that most of them live under poverty conditions.

Only recently, with the increasing activism of native populations (*movimientos indigenistas*) in Latin America, the role of ethnicity on the lack of opportunities has been accepted more open.

III. AN EMPIRICAL POVERTY MODEL FOR LAC

Model Specification

Based on the above considerations we postulate the following model for an empirical investigation of the underlying causes of structural, long run based poverty in LAC.

$$(1) \text{Poverty} = \beta_0 + \beta_1 * \text{Growth} + \beta_2 * \text{Rural} + \beta_3 * \text{Unempl} + \beta_4 * \text{Gov} + \beta_5 * \text{Indige} + u_i$$

$$\beta_1 \leq 0$$

$$\beta_{2...5} \geq 0$$

Where

Poverty = Percentage of households under the poverty line of country *i*,

Growth = Average growth rate of per capita GDP in country *i*, (%)

Rural = Percentage of total population in rural areas in country *i*

Unemp = Urban unemployment rate in country *i*, (%)

Gov = Index of Government failure in country *i*

Indige = Percentage of indigenous population in country *i*

u = Error term

β = Regression coefficients

We have chosen the poverty measure based on poverty lines. Poverty lines are the products of complex layers of pragmatic political and methodological compromises in each country. They reflect what each particular country considers poverty. Given this institutional definition, they determine the possibility of social policies for each country.

The explanatory variable *Growth* intends to test for the trickle down hypothesis about poverty determination, as a benchmark of a political accepted explanation for poverty. Note that we do not include an indicator of median income, say GDP per capita, as an explanatory variable² (Thurow, 1967).

The other explanatory variables are representations of the major explanatory factors above discussed. *Rural* and *Unempl* seek to represent the economic side, and more specially earning opportunities in each country. There are not readily available measures of job and business opportunities in the rural areas, but rural population size. The tradition of agricultural and rural development studies support the assumption that the size of rural populations (*Rural*) is associated with economies of low labor productivity, surplus labor, as well as undeveloped land, input, output and credit markets (de Janvry, 1981). *Unempl*, for urban unemployment rate, is a proxy for the lack of job opportunities in cities --an indirect measurement of earning opportunities. Since we estimate *Unempl* as the average of the annual rates of unemployment between 1980 and 1996, it could be interpreted as a measurement of the natural rate of unemployment. Alternative direct measures, such as indexes of industrial structure, could provide different insights (Thurow, 1967.), but this data is not readily available.

Gov is set to represent the extent of democratic representation and the performance of government. This index results from averaging out an index of democratic representation, with an index of perceived government corruption. Depending on its construction, *Gov* is an indicator of governance success or of governance failure. We define success as a case of wide social representation through a democratic process, combined with government accountability. The opposite, government failure, is lack of social representation and high levels of political corruption.

Indige represents the importance of indigenous populations within each LAC country --natives from Latin and Caribbean Americas. The ethnic composition of LAC populations is complex. Together with indigenous groups living under conditions of poverty, there exist countries where large groups of black populations live under poverty conditions. Furthermore, mixed ethnic groups, such as *mestizos* and *pardos*, represent important segments of the population, and their social status varies from country to country.

Data and Estimations

Table 1 depicts the summary statistics relative to poverty and its explanatory factors in LAC. The estimation of the coefficients of equation 1, using cross-country data presents some problems. The total number of observations is 22 countries, and therefore it precludes the simultaneous use of many independent variables, reducing the explanatory power of the model. Nevertheless, even with this small number the observations we are able to explain more that 60% of the variations in poverty.

Another problem is the different population and geographic size of LAC countries: From Guyana with 0.8 million, to Brazil with 140 million people. These differences create the possibility of heteroscedasticity. Our plotting of the square residuals against the predicted dependent variable does not indicate a strong violation of the homoscedasticity assumption of OLS estimations. Therefore, rather than exploring solutions such as Weighted Linear Square we will desegregate Brazil and Mexico by states or regions in a future research. This information was not readily available at the time of this investigation

Table 1
Summary Statistics used in Poverty Regressions

Variables	Symbol	Mean	Standard Error	Minimum	Maximum
Households below Poverty Line %	<i>Poverty</i>	40.83	3.58	11.00	73.00
Indigenous Population 70/90 % of Total	<i>Indige</i>	11.24	4.14	0.00	63.90
Rural Population % of Total	<i>Rural</i>	42.96	3.69	13.00	73.00
Government Failure Index	<i>Gov</i>	20.17	2.22	4.90	47.56
Growth Average Annual Rate 80-96	<i>Growth</i>	1.79	0.29	-1.05	4.49
Urban Unemployment 1980-96	<i>Unempl</i>	10.12	1.02	3.99	20.00
GDP per capita at PPP Dollars 1997	<i>GDP</i>	5,390	607	1,150	12,080

Data sources:

Poverty: CEPAL; Indigenous Populations: ILO & Library of Congress; Rural Population: CEPAL; Government Failure Index: own estimation based on Transparency International/Göttingen University and Political Representation Index; Growth: CEPAL; Urban Unemployment: CEPAL; PPP GDP: World Bank.

The matrix of simple correlation coefficients displayed in the Appendix (Table 4), shows a correlation between poverty and the dependent variables, according with our hypothesis. The correlation coefficient of *Growth*, the measure for the trickle-down hypothesis, however is small, and the coefficient of *Unempl* is almost zero.

Table 2 depicts the coefficients of the model estimated with OLS procedures. Variant 1, includes the tree major explanatory variables of poverty, according to our hypotheses. It is the best explanation as represented by adjusted R^2 --rural underdevelopment, government failure, and indigenous ethnic condition explains 60% of the variations of poverty. All coefficients are statically significant, although *Indige* is so at the 10% level.

Table 2
 Ordinary Least Squares Estimates of Poverty in LAC

	Variant 1	Variant 2	Variant 3
Intercept	6.15 (6.61)	5.30 (8.12)	8.50 (8.07)
<i>Indige</i>	0.22* -0.12	0.21* (0.13)	0.18 (0.14)
<i>Rural</i>	0.45*** (0.15)	0.45*** (0.15)	0.47*** (0.16)
<i>Gov</i>	0.65** (0.26)	0.65** (0.28)	0.67** (0.26)
<i>Growth</i>		0.34 (1.79)	
<i>Unempl</i>			-0.31 (0.59)
R Square	0.65	0.66	0.66
R2 Adj.	0.60	0.57	0.58
F Statistics	11.36	8.07	8.25
Observations	22	22	22

Notes: Standard errors in parentheses. *Significant at 10% level; **significant at 5% level;

***significant at 1% level.

Variant 2 includes the variable *Growth*. The estimated coefficient is not statistically significant even at the 80% level. This result supports our hypothesis that economic growth per does not reduce structural poverty in LAC. Note that our model intends to explain the ultimate causes of poverty and that we are investigating it by means of a cross-country analysis. It is possible, however, that within a particular country, variations of the growth rate from one period to the next affect the poverty rate (Lustig and Székely, 1997.), but it does not remove its fundamental causes.

Variant 3, includes the *Unempl* variable. The estimated coefficient is neither statistically significant. Variations of this rate, therefore, do not seem to affect structural poverty.

Finally, we have estimated the relative importance of the main explanatory factors of poverty. Table 3 reports the OLS coefficients of a double log form of our model. Building on the properties of the Cob-Douglas production function, we can interpret the estimated coefficients as elasticities as well as weights within the poverty generation process. In addition, the sum of the weights gives as estimation of the total impact of the explanatory factors on poverty.

The most important explanatory factor is the lack of earning opportunities in rural areas. This finding is consistent with the documented fact of rural underdevelopment in LAC. Rural underdevelopment explains 63% of poverty in LAC. The second most important factor is government failure, which explain 27% of poverty in LAC. The condition of being indigenous explains only 2% of poverty in LAC. Since our model is a reduced form, we interpret these results with cautions. The specification of the structural relations underlying the reduced form will need to consider the influence of political regimes on rural underdevelopment and on distribution of opportunities among ethnic groups. At the same time most ethnic populations are located in rural areas. We tried to investigate the complements and substitutions between the main explanatory factors, using a production function approach. However, the high level of aggregation of our data and the small number of observations has precluded from estimating statistically significant coefficients.

Table 3
OLS Estimates of Ln Poverty

<i>Intercept</i>	0.573 (0.480)
<i>LN Indige</i>	0.019** (0.009)
<i>LN Rural</i>	0.631*** (0.123)
<i>LN Gov</i>	0.270** (0.115)
Sum of Coefficients	0.92
R squared	0.86
R ² Adj.	0.70
F Statistics	16.96
Observations	22

*Notes: **Significant at 5% level;*

****significant at 1% level.*

The coefficients of the dependent variables in the Cob-Douglas form add to 0.92. One possible interpretation for this result is that there exist decreasing returns to scale in the reduction of poverty. Consequently, however successful were the policies to reduce poverty, in the end always there will be a residual of poverty, say 8%. Another interpretation is that we have an under-specification problem --we have not identified all the factors explaining poverty in LAC.

IV. CONCLUSIONS

We have investigated the fundamental causes for long standing, structural based, poverty in Latin American and the Caribbean. We have departed from conventional economic approaches such as poverty decomposition analysis, microeconomic behavior of the poor, or identification of assets that increase earning power. While those are appropriate description of the poor and their paths out of poverty, they do not explain the persistence of high poverty indexes in LAC. To this end, we have introduced institutions and ethnicity as explicit explanations of poverty in LAC. In particular we have introduced as explanatory variables the role of democracy and government accountability, and the ethnic conditions of some population groups. Our econometric estimations with cross-country data allows us to state the following conclusions:

1. Economic growth per se, does not reduce structural poverty. Poverty reduction requires specific interventions for this end.
2. There are three major factors explaining poverty in LAC: rural underdevelopment, government failures, and ethnic discrimination.
3. Poverty reduction policies need to focus on rural development programs, and on affirmative actions to expand the opportunities of indigenous populations and African-Latin-Americans.
4. The existence and effectiveness of those target projects, however, depend critically on changes in the political institutions and government behavior. As important as those projects are the development of democracy and the reform of government.

Our future research includes the desegregation of Brazil and Mexico, and perhaps Colombia and Argentina, into political States. A larger number of geographic units will allow matching better poverty to its causes. For example the representation of ethnic conditions needs to include both indigenous people and African Latin-American populations. Desegregation will also allow for two additional specification methods: the production function approach, to investigate complement and substitution between the explanatory factors of the reduced form; and path analysis or simultaneous equations, to specify a structural form.

APPENDIX

Table 4
Simple Correlation Matrix for the Poverty Model

	<i>Poverty</i>	<i>Indige</i>	<i>Rural</i>	<i>Gov</i>	<i>Growth</i>	<i>Unempl</i>	<i>GDP per capita</i>
<i>Poverty</i>	1						
<i>Indige</i>	0.37	1					
<i>Rural</i>	0.67	0.16	1				
<i>Gov</i>	0.63	0.12	0.42	1			
<i>Growth</i>	-0.11	0.06	-0.15	-0.20	1		
<i>Unempl</i>	-0.01	-0.44	0.20	0.18	-0.40	1	
<i>GDP per capita</i>	-0.73	-0.26	-0.84	-0.48	0.37	-0.21	1

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Footnotes

¹ An ongoing study sponsored by the IADB seeks to explain poverty reduction as a complex dynamic process that results from the "combined effects of four phenomena: changes in personal earnings arising from productivity gains and/or shifts from a job or sector of activity to another; changes in occupational status; changes in the demographic composition of families; and the replacement of older less educated cohorts by younger, better-educated and more productive cohorts."
<http://www.iadb.org/sds/document.cfm/5/SPANISH>

² To explain poverty my median incomes is to introduce a near tautology, for they are partially measuring the same phenomena. Indeed, differences in GDP per capita, in PPP dollars explain 73% of poverty in LAC. Furthermore, the same variables that explain poverty partially explain GDP per capita. See Table A-1, Correlation Matrix.