POVERTY, GOVERNANCE AND ECONOMIC GROWTH

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Abstract

The objective of this paper is to study the effect of governance and povrety on economic growth of a set of eight developing countries during the period 2000-2009, using a dynamic and static panel data model and a simultaneous equations model. The key findings generated from these three empirical tests stipulate a negative effect of governance on povrety and a positive effect of political instability and corruption on poverty****.

Keywords: Governance, Political Instability, Investment, Economic Growth, Dynamic Panel, Static Panel, Simultaneous Equations Model

JEL Classification: O43, O47, C23, 010, 015

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*****This article is the empirical result of the first part of a study on the effect of governance and poverty on economic growth. The future second empirical part of this research will be on governance.*

Introduction

For several years, the fight against poverty has become a serious challenge for the world community. Given that this problem is rampant several regions of the world and day to day more and more people are below the poverty line.

Indeed, the main objective of the international community, "Millennium Development Goal", based on halving the proportion of people whose income is below a dollar a day, between 1990 and 2015.

Poverty is a relative term that can signify a number of things. The most basic definition of poverty is the state of an individual who lacks a given amount of wealth or material possessions. Poverty is relative to the society one lives in. It relates in two ways. One reflects relative price levels and that equal income, say 5$, buys a much different basket of goods. The other is that different societies gauge poverty differently. Some societies consider those without medical care or access to education as poor. Other societies only consider those lacking food, water, clothing, and shelter as poor.

To investigate the relationship between poverty and economic growth we will proceed as part of this work, to a static and dynamic panel data model, on a sample of 8 developing countries during the period 2000-2009. Before starting the econometric studies, it should begin with definitions and measures of poverty in the first section. The second section of this work will be devoted to selecting variables, determining their sources and the interpretations of estimations results

1 Definitions and measures of poverty

1.1 Definitions of poverty

There is no single and universal definition of poverty. But all analysts recognize that poverty can be characterized by "a state of individual or collection destitution that puts people in a situation of lack or dissatisfaction with their basic needs essential." This operational definition of poverty that has been adopted by the Strategy Paper Poverty Reduction adopted in 2002.

It reflects particular lack adequate income to meet the minimum needs for food, health, education; drinking water, decent housing, and results in a lack of opportunities to participate in the social and economic life, as well as greater vulnerability to shocks involved various kinds.

Different dimensions of poverty are mutually reinforcing individual level, preventing them out themselves out of poverty. Thus, they may be maintained in the "poverty trap" in the absence of exogenous support, including from the government, partners and non-governmental organizations. As a result, poor left alone can't meet their basic needs in terms of food, health and education. In addition, low

levels of education do not allow them access to gainful employment, because of their low qualification. Moreover, their participation in decision-making process is marginal.

In short, poverty is the result of a process that begins with economic factors (lack of resources, capital, capacity.), Then it takes a social dimension (narrowing of the social fabric, isolation, exclusion) and leads to aspects political and psychological (hopelessness, deprivation).

1.2 Measurement of poverty

To measure the level of poverty, several approaches are used qualitative or quantitative. Qualitative information focus on the definition and causes of poverty, subjective ranking of households according to their poverty, and assessment of interventions in the fight against poverty. Quantitative data provide information on the living conditions of households (spending levels, access to basic social services, nutrition, housing, etc.). The combination of these complementary approaches lead to understand the phenomenon of poverty.

Among the available methodologies, the monetary approach, which focuses on the measurement of poverty is the most common. In this approach, is considered poor person whose income is below a certain poverty line.

The livelihoods approach is also used to measure the level of poverty defines poverty in terms of deprivation. It seeks to identify a number of difficulties, lack or deprivation in different areas of living conditions of households, existential nature (food, housing, health) or social (relationships, employment, recreation ...) .

The subjective approach to measure poverty is, however, not to refer to a minimum of resources or conventionally defined objective conditions of existence, but to search the households on their perception of their reality (living conditions, perceptions ....).

1.2.1 Poverty Indicators

Several types of indicators are used to measure poverty:

−The incidence of poverty measures the percentage of individuals or households whose consumption expenditure is below the poverty line. The poverty line corresponds to a minimum annual consumption expenditure for an individual or a household.

−The depth of poverty measures the average percent difference between the level of welfare of poor households and the poverty line. It can theoretically calculate the minimum amount of additional resources to be allocated to poor households to be in poverty line.

−The severity of poverty measures the average of the squared deviations between the consumption of the poor and the poverty line.

2 Econometric analysis

2.1 Variables

Our model incorporates several measures used to control variables. Previous studies have shown that they account for a significant share of national differences in growth rates in recent decades. Thus, the variables used in this study are: *Y:* the growth rate of real GDP per capita. *INV:* the ratio of gross capital formation in GDP. *OPEN:* the ratio of the volume of trade in GDP: (X + M) / GDP. *FDI*: the ratio of the net inflows of foreign direct investment in the GDP. *Poverty*: Poverty headcount ratio at national poverty line (% of population). *GINI*: the GINI index. *Political instability(PI):* it includes the following: military coups, political tensions, civil wars, social unrest, ethnic tensions, political violence, unpredictable changes in institutions and rules. *Corruption(COR):* it includes the following: frequency of irregular payment to civil servants and judicial practices unfit in the public sphere, corruption in the political system as a threat to foreign investment, incidence of corruption in government. These two indicators are rated on a scale of -2.5 to 2.5. 2.5 being the highest degree of political stability, absence of violence and fight against corruption.

All variables are for the period 2000-2009 due to the availability of data for all countries in the sample. All economic variables are taken from the report on the development in the world [2010], while the variables "Political instability "and" The corruption "are extracted from the database of the governance of Kaufmann (2009).

2.2 Estimation Methodology

2.2.1 Static panel model

The econometrics of panel data seems to be an avenue of research most relevant to the estimation of growth factors that take into account two dimensions: individual and temporal, provides insight into the various factors that might explain the growth.

2.2.1.1 Specification of the individual effects

In a study of static panel data, it should first check the specification of homogeneous or heterogeneous data.

However, when working with aggregate series, it is relatively unlikely that the growth function is strictly identical for all countries studied, especially when the sample of countries under study, is heterogeneous (different development level), that is the case in our sample. If the assumption of complete homogeneity is rejected, and if it turns out that there is a similar relationship between growth and explanatory

variables for all countries, the source of heterogeneity may come from the model constants α_i. However, there is no guarantee that the countries studied have the same level of structural productivity. In contrast, structural factors can cause structural differences in productivity levels between countries.

Our model is therefore an individual effects model, the question here is how these individual effects must be specified: should we adopt the assumption of fixed effects or rather the hypothesis of random effects? However, for panels of limited time dimension (typically the case of macroeconomic panels), there may be substantial differences between the achievements of both GLS and Within estimators (Hausman (1978)).

Therefore, beyond the economic interpretation, the choice of the specification, and thus the estimation method, is particularly important for such panels.

The whole strategy of specification test of individual effects is then based on the comparison of two estimators (GLS and Within), whose divergence reflects the presence of a correlation and the adoption of the fixed effects model and the Within estimator is imposed.Otherwise the two estimators give essentially identical results, the adoption of the random effects model is recommended.

2.2.1.2 Hausman' test

The specification test of Hausman (1978) is a general test that can be applied to many problems of specification in econometrics. But its most common application is the specification tests of the individual effects in panel. It thus serves to discriminate between fixed and random effects. Hausman recommends to base the test on the following statistic:

$$H = (\hat{\beta}_1 - \hat{\beta}_2)\left[\text{var}(\hat{\beta}_1 - \hat{\beta}_2)\right]^{-1}(\hat{\beta}_1 - \hat{\beta}_2) \quad (1)$$

The first estimator (indexed par1) is an estimator between (MCG), while the second (indexed by 2) is an estimator Within. Under the null hypothesis of correct specification, this statistic is asymptotically distributed according to a chi-square (K-1) degrees of freedom, where K is the number of variables in the model.

The hypothesis tested concerns the correlation of individual effects and explanatory variables:

$$H_0 = E(\alpha_i / X_i) = 0 \text{ versus } H_a = E(\alpha_i / X_i) \neq 0 \quad (2)$$

Under H_0 the model can be specified with individual random effects and we must retain the GLS estimator (BLUE estimator). Under the alternative hypothesis H_a model must be specified with individual fixed effects and we must adopt Within estimator (unbiased estimator). Thus, if the H-statistic is greater than the threshold β%, we reject the null hypothesis and it favors the adoption of fixed effects to specify the model. Otherwise, the null hypothesis is accepted and the adoption of the random effects model is needed.

In our case the probability of the hausman' test is greater than zero then the random effects model is preferred.

2.2.1.3 Estimation results and interpretations

According to the above, our equation is of the form:

$$Y_{i,t} = \alpha_i + \beta X_{i,t} + \mu_i + \nu_{i,t} \quad (3)$$

Where $Y_{i,t}$: Povrety indicator X_i, $_t$: control variables defined above, μ_i: individual heterogeneity, [μ_i ~ iid (0, σ2μ)] and the error term ν_{it} [ν_{it} ~ iid (0, σ2ν)].

The estimation results of our model, shown in Table A.2, are more or less satisfactory both econometrically than on the economic interpretation.

− Economic growth does not seem to have an effect on poverty.

The same goes for trade openness and income inequality.

Indeed, all these variables were not statistically significant coefficients despite their expected signs in most cases.

− Investment negatively affects poverty in these countries, because its coefficient is always negative and statistically significant indicating a predominant effect on poverty.

− Political instability and corruption that approximate governance positively influence poverty in these countries.

This can be explained by the fact that poverty is increasing in countries unable to attracted foreign investment and stimulate domestic investment representing an engine of economic growth, the necessary condition for the fight against poverty.

2.2.2 Dynamic panel model

Dynamic models are characterized by the presence of one or more lagged endogenous variables among the explanatory variables.

As part of our model, the introduction of past poverty indicator among the explanatory variables allows us to test the persistence of poverty of countries

in the sample under study since the previous poverty can influence current poverty.

Our study uses the following equation to test the relationship between poverty and economic growth:

$$y_{i,t} = \alpha_1 y_{i,t-1} + \beta_i X_{i,t} + \varepsilon_{i,t} \quad (4)$$

With, $y_{i,t}$: poverty indicator of country i in year t, $y_{i,t-1}$: poverty indicator of the previous year (t-1) and X: a set of control variables and $\varepsilon_{i,t}$ the error term.

2.2.2.1 The estimations results

The estimation results of our model are more or less satisfactory both econometrically as that of the economic interpretation.

The key observation that we can draw from the table A.3 is that the coefficients of the political instability and the corruption are statistically significant indicating a positive relationship between these variables and poverty in these countries.

The other important result of this estimation is that the economic growth reduces poverty. These results are comparable to that found by the study made by Dollar and Kraay (2000) on a sample of 80 countries for four decades. Through this study Dollar and Kraay have shown that growth, tends to reduce povrety in poor countries and that a bad quality institutions characterized by political instability and corruption may increase poverty due to the fact that the mechanisms of growth are blocked and the country's potentials are limited.

We can explain this result by the fact that our sample includes developing countries which safer from the weakness of political institutions.

Conclusion

As part of this research, we have tried to contribute into solving the fundamental question: Is there any link between a country's economic growth, his governance and poverty?

To do this, we used static and dynamic panel data models covering a sample of eight developing countries during the period 2000-2009.

The key findings emerged from this empirical analysis show:

− A negative effect exerted by the economic growth on poverty.

− A positive effect exerted by political instability on poverty.

− A positive effect exerted by corruption on poverty

In general, the results of these econometric studies consolidate the results already obtained by several researchers in this field. In fact, Dollar and Kraay (2000) have shown that growth, tends to reduce poverty in poor countries and that a bad quality institutions characterized by political instability and corruption may increase poverty due to the fact that the mechanisms of growth are blocked and the country's potentials are limited.

We conclude, without confirming that these analyzes have allowed us, even in part, to show the existence of a relationship between governance, economic performance and poverty.

However, it is important to note that despite the importance of empirical results which leads this work, deficiencies may arise:

− Other possible mechanisms of the relationship under study were not considered.

− Lack of data made our sample small.

− The influence of the threshold level of economic development has not been tested.

The relationship between poverty and economic growth could be better understood once its underlying mechanisms are still being analyzed and these shortcomings are remedied.

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Appendix

Table A.1. List of countries

1	Belarus
2	Brazil
3	Costa-Rica
4	Dominican
5	El Salvador
6	Honduras
7	Paraguay
8	Peru

Table A.2. Estimation results of poverty, governance and economic growth: dependent variable poverty indicator (Between estimator)

Variables	(1)	(2)	(3)
C	47.83 (5.05)	40.47 (3.55)	53.87 (6.42)
Growth	-0.074 (-0.33)	-0.094 (-0.43)	0.2 (1.09)
I	-1.01 (-5.77)	-0.91 (-5.00)	-0.72 (-4.65)
OPEN	0.13 (1.84)	0.09 (1.11)	-0.05 (-0.76)
GINI	-1.85 (-0.33)	-1.27 (-0.22)	-3.89 (-0.8)
political Instability	-	0.9 (1.72)	-
corruption	-	-	0.18 (5.64)

**Significant at 10%. *: Significant at 5%. t-student in parentheses. LGDP: real GDP per capita growth rate on t-1.

Table A.3. Estimation results of poverty, governance and economic growth: dependent variable poverty indicator (Arellano-Bond dynamic panel data estimator)

Variables	(1)	(2)	(3)
L Povrety	1.075 (5.24)	1.02 (3.15)	1.01 (4.97)
Growth	-0.49 (-3.17)	-0.26 (-2.21)	-0.38 (-2.83)
IDE	0.62 (1.29)	0.71 (1.15)	0.61 (1.3)
GINI	6.94 (0.4)	3.56 (0.13)	11.72 (0.68)
political Instability	1.43 (1.7)	-	-
corruption	-	0.14 (3.3)	-
T- Sargan	4.9 (43)	6.13 (43)	7.23 (43)
AR(2)	0.1	0.8	0.8

**Significant at 10%. *: Significant at 5%. t-student in parentheses. LGDP: real GDP per capita growth rate on t-1.
b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 0.06
Prob>chi2 = 1.0000