Poverty in Togo between 2006 and 2011: Accounting for Differences in Poverty Rates and the Role of Economic Growth

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Abstract

As is the case of other countries, Togo committed itself, at the Millennium Summit, to halving poverty rates by 2015. Despite the efforts Togo has made to this end, poverty levels remain high in the country as evidenced by the high poverty rate of 57.8% in 2011. This slow pace in poverty reduction raises the issue of how well the poverty phenomenon is understood in Togo. To contribute to a better understanding of the situation, this study sought to explain the strong disparities that exist between rural and urban areas and shed light on the contribution of economic growth and income redistribution to the poverty phenomenon. The study uses data obtained from the surveys conducted in Togo in 2006 and 2011 using the Questionnaire on the Basic Indicators of Well-being (Questionnaire Unifié des Indicateurs de Base du Bien-être, QUIBB). It followed the methodological approach used by Shorrocks (1999) to analyse economic growth and income redistribution, and that used by Blinder-Oaxaca (1973) to account for the differences in poverty rates between rural and urban areas. The study analyses growth and redistribution between the two reference years, and shows that strong economic growth is needed for any significant reduction in poverty to occur. However, growth has to be complemented with pro-poor redistribution policies. The poverty differences observed between Togo's rural and urban areas are accounted for by disparities in the resources available for the two areas. This suggests that, since they are essential for poverty reduction, government interventions aimed at increasing the quantity of such resources in the rural areas should be given greater priority than those aimed at improving their quality.

Keywords: Poverty, Blinder-Oaxaca, Pro-poor redistribution

1. Introduction

Overview

The issue of poverty has been the subject of debate at all levels for many years. It has been the topic for discussion at the highest level to the point of featuring as an essential item on the global development agenda, which led to the Millennium Declaration in September 2000. Thus, considerable efforts have been made throughout the world to tackle poverty.

In particular, poverty remains the most acute problem in Sub-Saharan Africa where a great number of people live below the poverty threshold. That is why each country had to set its own goals and define its activities in relation to the poverty issue. However, it is evident that many countries are still far from achieving those goals (Dercon, 2009).

In Togo, poverty incidence is at relatively high levels despite the strategies that have been adopted by successive governments for several years now. Evidence of this comes from the third report of 2010 on the follow-up of the Millennium Development Goals, which confirmed what the preceding two reports had said, namely that the poverty reduction goal would not be achieved by 2015.

Since independence, Togo opted for planning as a strategy to orient and conduct its economic and social development. To this end, five-year plans, of a normative nature for the public sector and an incentive nature for the private sector, were developed. They contributed, to some degree, to putting in place structures and basic infrastructure that are indispensable for the country's harmonious social and economic development. The Structural Adjustment Programmes (SAPs) implemented in the 1980s to remedy the macroeconomic imbalances characterized by structural budget and external deficits, and a slump in economic growth, led to a deceleration in economic growth and a worsening of poverty.

Therefore, in an effort to remedy this situation, the Togolese government adopted, in 2007, the National Strategy for Development, based on the Millennium Development Goals (MDGs) and designed to cover the 2006-2015 period. Later, in 2009, it also adopted its Complete Poverty Reduction Strategy Paper (known in the country as DSRP-C), which served as a unifying framework for the different development actions over the 2009-2011 period. The envisaged accompanying political measures[1] saw only a very limited implementation, mostly because of the socio-political crisis that

shook the country in 2005 and which led to a slowdown in economic activity and, hence, to lack of progress in the social indicators. The limited implementation of these strategies produced only meagre results both in terms of poverty reduction and economic growth. That is why a new Poverty Reduction Strategy Paper (DSRP-II) was developed for the 2013-2017 period, labelled the Strategy for Accelerated Growth and Employment Promotion (Stratégie de Croissance Accélérée et de Promotion de l'Emploi, SCAPE).

Despite all these strategies, poverty levels have remained very high in Togo. The poverty incidence was estimated by the World Bank at 32.5% of the population in 1989. According to the UNDP, it had risen to 35.0% in 1998 (PNUD[2], 2004) while the QUIBB surveys showed that it was 61.7% in 2006 (QUIBB[3], 2006) and 58.7% in 2011 (QUIBB, 2011). However, these poverty rates were unequally distributed; the 2006 and 2011 surveys showed that poverty was essentially a rural phenomenon, with more than 73.4% of the rural population living below the poverty line, against only 28.5% for Lomé (the capital city), and 44.7% for the other urban centres in 2011. In 2006, they were 75.1% for the rural areas, 30.8% for Lomé, and 46.4% for the other urban areas.

This slow pace in reducing poverty raises the question of why the different measures taken by the government failed in reducing poverty levels in any significant way. Underlying this question is the issue of how well the poverty phenomenon in Togo is understood. With poverty being a complex and multidimensional phenomenon, the numerous economic and social development policies implemented to fight it have, in most cases, produced meagre results. Since the causes of poverty are many and diverse, it is acknowledged that an effective fight against poverty must consider the many economic and social dimensions that interact with each other. This implies that there is a need to conduct several types of analysis to better describe and understand the different aspects of the phenomenon.

In this connection, there are studies, though not very many, that have been carried out on poverty in Togo. Some have used a monetary approach [World Bank, 1996 and UNDP, 2000], while others have used a non-monetary approach (Lawson-Body et al, 2007), while still others used a general equilibrium approach (Agbodji et al, 2007). This latter study was aimed at measuring and analysing the potential effects of the different strategies defined in the Interim Poverty Reduction Strategy Paper (PRSP) on household poverty.

To provide more information on poverty in Togo and, thus, contribute to understanding it, this study carried out an analysis on poverty based on economic growth and income redistribution and sought to understand the strong disparities existing between rural and urban areas in the country. The information obtained from the analysis can serve as an objective criterion for targeting the destitute populations and thus guide the allocation of cash transfers, financial assistance and donations by enabling investment in infrastructure, among other things. The same information can equally enable a measurement of the impact of all these actions on the improvement of household living conditions. Unlike the previous studies on poverty in Togo, this

study will describe the role played by inequality in income redistribution in reducing poverty, and on the factors that account for the large disparities in poverty rates between rural and urban areas.

Objectives of the study

The aim of this research is to identify the elements that could enable a comprehension of the poverty phenomenon in Togo between 2006 and 2011. Its specific objectives were to:

(i.) Explain the disparities in poverty rates between rural and urban areas; and,

(ii.) Determine the contribution of economic growth and income redistribution to the poverty phenomenon in Togo.

2. Socioeconomic background

Togo's economy relies principally on agriculture, phosphate exploitation and trade. Agriculture represents, on average[4], 45% of the country's GDP and employs two-thirds of the population. The secondary sector (comprised mostly of phosphate extraction, cement production, construction, and energy) represents, on average, 22% of Togo's GDP and employs about 12% of its population. The service industry, which is dominated by trade and transport and generates on average 33% of the country's GDP, employs about 21% of its population.

In terms of economic performance, the period 2000-2012 saw a weak growth at an average 3%. The real GDP growth was 2.4% in 2008; it rose to 3.4% in 2009, and 4.0% in 2010. According to the Directorate of the Economy, it reached 4.9% in 2011 and 5.4% in 2012 (Direction de l'Économie, 2013). This sustained increase was due both to favourable climatic conditions (in the case of agricultural production) and the effects of the policies implemented by the government (support for agriculture, an increase in spending on public investment in the roads and energy sectors).

However, this economic growth remains structurally handicapped by a low level of total factor productivity (TFP) and high costs of production factors. In fact, since 1980, TFP has been on a downward trend. The fall in the capital-to-labour ratio, associated with decline in TFP, has contributed to reducing the workforce's productivity and per capita income. While the working population has increased thanks to an improvement in the education sector, physical capital accumulation has stagnated since the 1990s, thus contributing to a steady decline in TFP, which had begun in the 1980s. The average per capita investment for the period 2000-2005 remained very weak in Togo, just about US$ 45, against an average of US$ 90 for Sub-Saharan Africa (Banque Mondiale – World Bank, 2010[5]).

In relation to employment, the rate of unemployment and that of under-employment are rather high among the working population, especially the youth. In 2011, Togo's unemployment rate was estimated to be at a high level (8.1%), while that of underemployment was estimated at 29.1%. This figure clearly reflects a hard situation, employment-wise. Regarding youth employment, the unemployment rate fell slightly between 2006 (9%) and 2011 (8.1%), while the under-employment rate remained high (20.5% in 2011).

Unemployment and under-employment affect men and women differentially; the 2006 and 2011 QUIBB surveys revealed that while under-employment affected 34.9% of men, it affected 31.2% of women. In addition, the labour market is still confronted

with numerous weaknesses and inadequacies, which do not make it possible to have reliable and up-to-date data on a regular basis.

Regarding poverty, a comparison of the different indicators used in the reports on the 2006 and 2011 QUIBB surveys shows that, overall, there was a three-percentage-point drop in the poverty incident in five years, falling from 61.7% in 2006 to 58.7% in 2011. This drop was observed both in rural areas (with a 1.7 percentage point drop) and urban areas (with a 2.3 percentage point drop in Lomé and a 1.7 percentage point drop in the other urban areas). Despite this generalized drop, the same results showed that in 2011 poverty was still an essentially rural phenomenon, with more than 73.4% of the rural population living under the poverty threshold, compared to 28.5% in Lomé and 44.7% in the other urban areas. Moreover, when the demographic weight is brought into the equation, the majority of the poor population, 78.9% to be precise, lived in rural areas against 21.1% who lived in urban areas, including Lomé. It should be noted, though, that between the two periods, there was a worsening of the depth and severity of poverty, with the respective rates rising from 23.6% to 24.4% and from 11.6% to 13.1%. This worsening is indicative of the widening gap between the poor populations' average expenditure and the poverty threshold, a widening which was worse in urban areas other than Lomé and in the rural areas.

As in the case of area of residence, the trends in poverty indicators varied according to regions: poverty reduced in Lomé, dropping from 32.8% in 2006 to 27.2% in 2011; in the Kara region, dropping from 74.2% to 68.4%, and, most significantly in the Maritime region where it dropped from 67.1% to 53.9%. Poverty increased in Togo's other regions: it rose from 61.1% to 64.7% in the Plateaux region, from 74.6% to 80.2% in the Centrale region, and from 86.7% to 90.8% in the Savanes region. These trends went in the same direction as the variation in the difference between the poor populations' average expenditure and the poverty threshold.

3.Literature review

This review covers two aspects of poverty decomposition: The first is the decomposition of the poverty variation into economic growth and income redistribution components, while the second concerns the explanation of the disparities in poverty rates between urban and rural areas using the Oaxaca-Blinder decomposition.

Growth-inequality analysis of the variation in poverty

An analysis of the effects of economic growth and income redistribution on poverty is often based on the assumption of Kuznets's (1955) "inverted U curve hypothesis". This establishes a connection between economic growth and inequality in income redistribution, and the vision of the new political economy, which is concerned with the negative effect of the worsening inequality in income distribution on growth and poverty. The hypothesis claims that inequality in income redistribution is aggravated first by economic growth, which occurs before an increase in growth becomes pro-poor. Two conclusions can be drawn from this claim: first, there is a link between inequality and growth; second, a better redistribution of income is achievable over time and if there is rapid economic growth. For its part, the vision of the new political economy claims that the worsening of inequality in income redistribution is detrimental to growth (Persson and Tabellini, 1995; Perotti, 1992).

Despite some controversy over these two points of view, as in the case of many other studies that have not been able to establish a clear link between growth and inequality, this study assumes the connection above following the principle that a reduction in poverty is realized as a result of growth in household income and a change in the redistribution of growth.

The approach that has been widely used to empirically formalize this relationship is the Datt-Ravallion analytical framework, which is based on a mathematical relationship between a given poverty index and the mean and the Lorenz curve in income distribution. Decomposition separates the disparities in (spatial or temporal) poverty into two components: one associated with income growth and another associated with a change in redistribution inequality. The pioneer research on the decomposition of the changes in poverty is that carried out by Ravallion and Huppi (1991) in the case of Indonesia, by Datt and Ravallion (1992) in the case of regions of Brazil and India, and by Kakwani (1993) in the case of Côte d'Ivoire.

The disadvantage of the Datt-Ravallion analytical framework is that it contains a residual term which, as Wang and Zhang (2006) have pointed out, is likely to obscure the main results of numerical analysis. An improvement on this framework is the Shapley value approach, which decomposes the variation in poverty precisely as a function of growth and change in inequality without the residual term.

The empirical literature on growth and poverty has reported two main results, which contradict each other. The first rejects the mechanical link between poverty reduction and growth and inequality in income distribution. Applying their method of decomposition of the trends in the poverty measurement into a "growth effect"[6] and an "inequality effect",[7] Datt and Ravallion (1992), using data from Brazil and India, found that the growth effect largely surpassed the inequality effect. In the same vein, Dollar and Kraay (2000), in a study they conducted for the World Bank, argued that the growth elasticity of poverty was 1, on average; that growth did not have an impact of inequality; and that, in practice, it led to prioritizing the goal of growth acceleration and while ignoring issues of income distribution. In view of all this, the authors concluded that "growth is good for the poor". Bhalla (2002) and Sala-i-Martin (2002) maintained that "growth is not enough to reduce poverty." These two authors argued that the World Bank statistics were overly pessimistic, and that poverty had actually been significantly reduced throughout the world during the previous decades without there being a need for targeted policies. In other words, the growth elasticity of poverty was higher than 1, on average, and growth was historically pro-poor. Agrawal's (2008) study on Kazakhstan found similar results; it revealed that a rapid growth, coupled with an increase in public spending on social sectors, reduced poverty more rapidly.

The study found that the link between economic growth and poverty had to take inequality trends into account. Given that growth as an indicator is a mean, it masks income disparities. Because of this, in developing countries such as Togo, income distribution can be more unequal than economic data suggest. That is why the conclusion that there is a direct relationship between overall economic growth and poverty reduction has been questioned. In this line of argumentation, some economists, among them Bourguignon (2002) and Cling et al (2004), have maintained the view that "growth is not enough to reduce poverty." The different results reported by these authors suggest that inequality constitutes an important dimension of the problem, which should not be ignored in the fight against poverty. For Bourguignon (2002), a reduction in inequality leads not only to a reduction in poverty through a pure redistribution effect but also to an acceleration in the rate of poverty reduction, since the elasticity of the poverty rate with respect to the average income negatively depends on the level of income inequality. According to Klasen (2001), a positive growth, accompanied by an increase in the share of the national income held by the poor, will lead to a greater reduction in poverty than if the income of the poor increases less than, or as fast as, that of the rest of the population.

However, the relationship between growth, inequality and poverty trends goes beyond this simple decomposition. This is a point of view shared by Boccanfuso and Kaboré (2004) in an article on growth, inequality and poverty in Burkina Faso and Senegal in the 1990s. The authors have shown that any growth in the average level of income or expenditure does not necessarily lead to a reduction in poverty, and that it is even possible to witness a worsening of poverty if this growth does not compensate for the concomitant increase in the poverty threshold (in the case of Burkina Faso). Mkenda et al (2010) have written about growth and distribution in Tanzania. They asked themselves the question of why the impressive growth witnessed in the country between 2000 and 2007 did not lead to a reduction in poverty and whether it instead led to an increase in inequalities. They found that the main reason was that an increase in household consumption was unequally distributed.

It transpires from the preceding different analyses that strong economic growth leads to an increase in per capita income and an improvement in the population's general well-being owing to favourable conditions on the labour market. The wealth thus created enables the country to invest more in social sectors (education, health, and housing) and infrastructure, an investment that will have a positive effect on poverty. However, economic growth does not always benefit the poor. Only strong economic growth, sustained by an effective policy of income redistribution (to fight income inequality) and a control over inflationary pressures can produce enough room for manoeuvre for reducing poverty.

All in all, both on the theoretical and empirical levels, the debate continues and there is still room for more research on the subject within the context of Togo, as pointed out earlier.

Explaining the disparities in poverty rates between different population groups

Several approaches have been used in the literature to analyse the determinants of poverty. Various models have thus been used (the Ordinary Least Squares models, the logit, probit or multinomial logistic model), which consist in identifying the variables that determine the probability of a household being poor or not (logit or probit), or a distribution of living standards according to quintiles (Lachaud, 1998). Since the beginning of the 2000s, the Oaxaca-Blinder decomposition model, which was developed in the 1970s, has been the basic tool used in the different studies that sought to identify the differences in wages, poverty rates or profit gains between genders, areas of residence, and socio-economic groups.

Blinder (1973) and Oaxaca (1973) sought to specify the determinants of the wage differentials over time between men and women by distinguishing between the effects due to the differences in their respective characteristics and those due to the differences arising from the output of these characteristics. This Oaxaca-Blinder decomposition technique allows an identification of the causes of income

differences between groups and a quantification of the separate contributions of the group differences in measurable characteristics, such as level of education and experience on the labour market, and the contributions of the output differences of these characteristics.

This decomposition technique was later adapted to explain the differences in poverty between two groups of a population. The first adaptation was made by Bourguignon et al (2002) to decompose the differences observed between two population groups for any indicator of poverty or inequality. For his part, Yun (2004) developed a simple and general methodology, which made it possible to obtain a standardized regression and to apply the Oaxaca decomposition. This method was devised to remedy certain deficiencies observed in the previous uses (in particular that by Bourguignon et al. 2002), as it makes it possible to avoid the issue of the dependence related to the substitution order and can function without restriction in relation to the functional forms of statistical models. It is thus a method that extends the Oaxaca decomposition to non-linear models. Yun (2004) generalized his analysis to the decomposition of the differences in the first moment (mean) of the variable of interest and showed that an Oaxaca decomposition for the differences in the first moment could be easily combined with a standardized equation. A more comprehensive approach combining those used by the World Bank (2003), Bourguignon et al (2002), and Yun (2004; 2005) was used by Yun et al (2006) to analyse the poverty differences between Serbian households and Albanian ones in Kosovo. This latter use inspired Adoho and Boccanfuso (2007) in their explanation of the poverty differences between rural and urban areas of Guinea, and Koloma (2011) in his explanation of the poverty differences between types of beneficiaries of microfinance loans in Mali.

4. Methodology

This section describes the techniques that enabled this study to achieve its two objectives, namely an analysis of the growth-inequality poverty and an explanation of the disparities in poverty rates between (rural vs urban) areas of residence.

Decomposition of the Variation in Poverty into Growth and Inequality

The literature has revealed several methods of decomposing poverty: Kakwani's (1993) static method, Datt and Ravallion's (1992) dynamic method, Kakwani's (1997) dynamic method, and Shorrocks' (1999) dynamic method. This study chose to use this latter, which is based on the general problem of Shapley's (1953) decomposition. The study preferred this method over that proposed by Kakwani (1997) and which comprises a residual term that could have a significant value capable of affecting interpretations of results. While Shorrocks' method produces an accurate decomposition in the two components indicated (Wan and Zhang, 2006), it should be noted that it produces results similar to those produced by Kakwani's (1997) method. In fact, the former results are a particular case of the latter. In addition, Shorrocks decomposition enables a targeting of income transfers to the poor. That is why it is the method best suitable for this study in terms of providing the tools required to tackle the study's research problem and achieve its objectives.

The method analyses the contribution of growth G and that of inequality in the redistribution of income R in the variation ΔP in poverty, which can be written as follows:

$$\Delta P = P(\mu_2, L_2) - P(\mu_1, L_1) = P(\mu_1(1+G), L_1 + R) - P(\mu_1, L_1) = F(G, R) \tag{1}$$

$$\Delta P = C_G^S + C_R^S \tag{2}$$

where:

$$C_G^S = \frac{1}{2}\left[P(\mu_2, L_2) - P(\mu_1, L_1) - \left(P(\mu_1, L_2) - P(\mu_1, L_1)\right) + \left(P(\mu_2, L_1) - P(\mu_1, L_1)\right)\right]$$

$$= \frac{1}{2}\left[P(\mu_2,L_2)-P(\mu_1,L_2)+P(\mu_2,L_1)-P(\mu_1,L_1)\right] \tag{3}$$

$$\gamma_R^S = \frac{1}{2}\left[P(\mu_2,L_2)-P(\mu_1,L_1)-\left(P(\mu_2,L_1)-P(\mu_1,L_1)\right)+\left(P(\mu_1,L_2)-P(\mu_1,L_1)\right)\right]$$

$$= \frac{1}{2}\left[P(\mu_2,L_2)-P(\mu_2,L_1)+P(\mu_1,L_2)-P(\mu_1,L_1)\right] \tag{4}$$

In this notation, growth designates income growth, which is approximated by average household consumer expenses. The capacity of each of these indicators (income or expenditure) to describe well-being has been widely debated in the literature. In this connection, the option advocated by the developing countries is that of consumer expenses, for several reasons. First, the flows of expenditure are much more regular and, thus, can be captured more easily than the flows of income. This is because consumption is smoother in time than income. This is related to the permanent income hypothesis put forward by Friedman (1957), according to which an individual consumes, over time, a portion of his/her permanent income, which does not depend on current income fluctuations. Secondly, most households involved in informal activities remember their expenses better than their incomes. Thirdly, consumer expenses enable a better analysis of poverty of the category of people said to be without income. Finally, consumer expenses highlight not only having a purchasing power, but also having access to the market of goods and services. For its part, poverty is measured by the poverty incidence[8], which reflects the proportion of the poor in the entire population; that is, the proportion of people whose annual expenses are below the poverty line.[9]

According to the Shapley rule, the contribution of the "growth" factor is a mean of two elements: (i) the variation in the poverty measurement if inequality is fixed, equal to that of period 1, and (ii) the variation in the poverty measurement if inequality is fixed, equal to that of period 2. The contribution of the "inequality" factor is also a mean of these two elements: (i) the variation in the poverty measurement if the average income is fixed, equal to that of period 1, and (ii) the variation in the poverty measurement if the average income is fixed, equal to that of period 2 (Mededji et al, 2001). It should be noted that this decomposition generally allows a single poverty threshold between the initial and final dates (that is, for the comparison period). On the economic level, it indicates that if economic policies succeed in stabilizing the poverty threshold, the increases in income and expenditure will be a reflection of a reduction in poverty.

An interpretation of such a decomposition very often refers to the signs and magnitude (the absolute value) of the values found for each of its components. A positive sign means that the component contributes to worsening poverty between the two periods while a negative sign means that the component contributes to reducing poverty. When the components have opposite signs, the net result is interpreted in terms of the component that has the larger magnitude. A positive sign

for the redistribution component is to be understood as an income redistribution that is unfavourable to a given group, whereas a negative sign will have the opposite interpretation.

Decomposition of the rural-urban poverty differences: Oaxaca-Blinder method

The method used to explain the differences in poverty between rural and urban areas is the three-step decomposition of the poverty incidence, as an extension of the decomposition technique commonly attributed to Blinder (1973) and Oaxaca (1973). This method consists in decomposing the between-group differences in the mean observations of a given variable into the differences due to observable characteristics, or "endowments", between those groups, and the differences due to the differentiated compensation (or coefficients) for the said characteristics. In this study, the use of this method followed the steps followed by Adoho and Boccanfuso (2007): (i) the specification and regression of the model; (ii) the decomposition of the poverty differences using the Oaxaca-Blinder approach; and (iii) the contribution of the variable k to the total poverty difference between two groups according to the proposed approach. According to this method, the equations of the poverty incidence can be estimated by distinguishing the population sub-groups along their areas of residence (rural vs urban).

Step 1: Specification and regression of the model

Just like the study by Adoho and Boccanfuso (2007), this study used a qualitative approach (a dichotomous probit). Therefore, at this step, the model was estimated as follows:

$$\begin{cases} Pov_{ij} = 1 \ \ \text{if } y_{ij} < z \\ Pov_{ij} = 0 \ \ \ \text{if not} \end{cases}$$

(5)

where y_{ij} is the expenditure per head or per adult equivalent of household i in group $j \ (j = A, B)$ and z the poverty threshold. In terms of probability, the probability of being poor for household i in group j equals:

$$P\left(y_{ij} < z\right) = P\left(Pov_{ij} = 1\right) = \Phi\left[X_{ij}\beta_j\right]$$

(6)

In this equation, X_{ij} designates the vector of the observed characteristics of household i in group j and $\Phi(.)$ is the cumulative function of a normal distribution of mean 0 and variance σ^2. Following the estimation of coefficients β_j (given $\hat{\beta}_j$), the poverty incidence for group j, asymptotically equivalent to the percentage of the poor households within group j, is given by:

$$P_{0j} = P\left(X_j, \hat{\beta}_j\right) = \overline{\Phi\left(X_{ij}\hat{\beta}_j\right)} = \frac{1}{n}\sum_{i=1}^{n_j}\Phi\left(X_{ij}\hat{\beta}_j\right)$$

(7)

This equation was estimated both for the whole of this study's sample and separately for the urban vs rural areas, and for each of the reference years (i.e. 2006 and 2011).

Step 2: Decomposition of the poverty differences using the Blinder–Oaxaca method

The poverty differences between the two groups (rural and urban) can be decomposed into two components: first, a component explained by the difference in the observable characteristics, assuming that:

$$Exp = \left[\overline{\Phi\left(X_A\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_A\right)}\right]$$

(8)

and an unexplained component, related to the difference in the coefficients for the two groups A and B.

$$NExp = \left[\overline{\Phi\left(X_B\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_B\right)}\right]$$

(9)

Therefore, the differences between two groups of interest can be decomposed in the following way:

$$P_{0A} - P_{0B} = \underbrace{\left[\overline{\Phi\left(X_A\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_A\right)}\right]}_{\text{differences in chararcteristics}} + \underbrace{\left[\overline{\Phi\left(X_B\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_B\right)}\right]}_{\text{differences in coefficients}}$$

(10)

The three equations above (8 to 10) assume that the reference group is group A, but group B can also be selected.

The first term is the explained part of the poverty differences between rural and urban areas, due in particular to the differences in the observed characteristics. The second term, the coefficient, represents the contribution (output) of the characteristics to the determination of poverty differences; that is the unexplained part well suited to represent a certain unequal distribution of poverty between rural and urban areas, thus a non-observable part.

Step 3: Contribution of the variable k to the total poverty differences between groups A and B (Yun, 2004)

According to Even and Macpherson (1990; 1993), the contribution of the explanatory variable k to the component Exp is given by the following equation:

$$Exp_k = \left[\overline{\Phi\left(X_A\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_A\right)} \right] \times \left[\frac{\left(\bar{X}_A^k - \bar{X}_B^k\right)\hat{\beta}_A^k}{\left(\bar{X}_A - \bar{X}_B\right)\hat{\beta}_A} \right]$$

(11)

where $\bar{X}_j^k$ is the mean of the observations of the variable k within group j

$$j = A \text{ and } Bj = A \text{ and } B$$

This result was generalized by Yun (2004) to measure the contribution of the variable k to the total poverty differences between groups A and B. These differences can be decomposed as follows:

$$P_{0A} - P_{0B} = \sum_{k=1}^{K} W_{\Delta X}^k \left[\overline{\Phi\left(X_A\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_A\right)} \right] + \sum_{k=1}^{K} W_{\Delta\hat{\beta}}^k \left[\overline{\Phi\left(X_B\hat{\beta}_A\right)} - \overline{\Phi\left(X_B\hat{\beta}_B\right)} \right]$$

(12)

where $W_{\Delta X}^k = \dfrac{\left(\bar{X}_A^k - \bar{X}_B^k\right)\hat{\beta}_A^k}{\left(\bar{X}_A - \bar{X}_B\right)\hat{\beta}_A}$, $W_{\Delta\hat{\beta}}^k = \dfrac{\bar{X}_B^k\left(\hat{\beta}_A^k - \hat{\beta}_B^k\right)}{\bar{X}_B\left(\hat{\beta}_A - \hat{\beta}_B\right)}$ and $\sum_{k=1}^{K} W_{\Delta X}^k = \sum_{k=1}^{K} W_{\Delta\hat{\beta}}^k = 1$

(13)

The first term of Equation 12 indicates the contribution of the characteristics of the different households' characteristics, or possessions, to the mean difference of the dependent variable (the characteristics component), while the second term represents the contribution of the different outputs to these household characteristics (the structural component). This decomposition technique, which uses weightings as an extension of the Blinder-Oaxaca decomposition, was proposed by Yun (2004).

In this study, the non-linear Oaxaca-Blinder decomposition technique offered an explanation for the poverty differences between rural and urban areas (and made it possible to quantify the separate contributions) and specified the contribution of the output differences of these characteristics. The practical implementation of this technique in this study was done using the "fairlie"[10] command programmed into Stata.

Data

This study used data from the QUIBB surveys conducted in 2006 and 2011 throughout the country. The sampling frame for the surveys was enumeration areas. For either survey, a two-stage sampling was done. At the first stage, a sample of areal units (AU) consisting of enumeration areas was selected; at the second stage, a sample

was selected consisting of households within the areal units already selected, taking into account the fact that the same number of households had already been selected within each areal area. The QUIBB survey of 2006 involved 7,500 households while that of 2011 involved 5,491 households. These QUIBB surveys for Togo were derived from a standard questionnaire comprising basic indicators of well-being. These indicators have to do with adult literacy, basic education, health, nutrition, access to drinking water, employment, housing characteristics, household assets, access to community infrastructure, and households' perception of their own economic situation. The QUIBB surveys for Togo comprised, in addition, items related to income and expenditure, which were meant to gather information on household monetary poverty. Specifically, they gathered information on agricultural production, durable goods, autonomous consumption, recurring consumption expenses, less recurring consumption expenses, and household income.

This study chose to concentrate on two poverty thresholds calculated on the basis of the 2006 and 2011 QUIBB surveys by the General Directorate of Statistics and National Accounting. The poverty threshold for 2006 was CFAF 276,400, while that for 2011 was CFAF 323,388. These thresholds were actually those for Lomé, but were considered as national thresholds. They are higher than those for the other regions, which means that using them will certainly overvalue the poverty indicator in some cases.

5. Results and interpretation

Growth-redistribution analysis of poverty

This analysis is a decomposition of the poverty incidence into its economic growth and income redistribution components according to area of residence, region, socio-economic group, and level of education for the head of household. The results are summarized in the Table 1 below.

Table 1: Decomposition of the variation in poverty incidence

	2006	2011	Variation $\text{FGT}(\alpha = 0)$	Shapley value Growth	Redistribution
Area of residence					
Urban: Lomé	0.2967	0.2877	-0.0090	-0.0378	0.0288
Other urban areas	0.7478	0.7520	0.0042	0.0163	-0.0121
Rural area	0.9284	0.9094	-0.0191	-0.0034	-0.0157
Region					
Grand [Greater] Lomé	0.3417	0.3120	-0.0298	-0.0484	0.0186
Maritime	0.7083	0.5240	-0.1843	-0.1637	-0.0206
Plateaux	0.6097	0.6354	0.0257	0.0206	0.0051
Centrale	0.7474	0.7756	0.0282	0.0250	0.0032
Kara	0.7569	0.6815	-0.0753	-0.0647	-0.0107
Savanes	0.8892	0.8644	-0.0248	-0.0032	-0.0216
Socio-economic group					
Public sector employees	0.5311	0.5183	-0.0128	-0.0090	-0.0038
Private sector employees	0.5330	0.6233	0.0903	0.0576	0.0327
Self-employed in the agricultural sector	0.9508	0.9508	-0.0154	-0.0002	-0.0152
Other self-employed	0.6118	0.6925	0.0807	0.0705	0.0102
Unemployed/inactive persons	0.6904	0.6856	-0.0049	-0.0021	-0.0028
Level of formal education for the head of household					
No formal education	0.9150	0.9171	0.0021	0.0075	-0.0054
Primary level	0.8115	0.7901	-0.0214	-0.0023	-0.0191
Partial secondary level	0.6568	0.6561	-0.0007	0.0049	-0.0056
Full secondary level	0.5106	0.5255	0.0149	0.0121	0.0028
Higher education	0.2322	0.2647	0.0325	-0.0216	0.0541

Source: Author's compilation based on data from the 2006 and 2011 QUIBB surveys

These results show that both in the urban area of Lomé and in rural areas, growth (with upward trends in incomes and consumption expenses) contributed to poverty reduction, but to a lesser extent in the rural areas. However, it contributed to a worsening of poverty in the other urban areas. As for inequalities in income

redistribution, overall they contributed to worsening poverty in Lomé, but to reducing it in the other urban centres and in rural areas. The drop in the poverty incidence in rural areas is attributable to the contribution of income redistribution, which was clearly higher than that of growth, even though both components contributed to the drop in question. This result for the rural areas, which is similar to that observed for the self-employed in the agricultural sector, could be explained by an increase in income and consumption expenses resulting from an increase in agricultural production attributable to the reforms carried out in the sector through a number of projects and programmes. The favourable effect of redistribution could be explained by the implementation of policies aimed at guaranteeing revenues to farmers through buying their cereal produce (bought by the Togo National Food Security Board). Given that the services sector is predominant in the urban area of Lomé, it is probable that a good running of the sector during the period of study benefitted the urban households by increasing their revenues, but this increase was strongly mitigated by the redistribution effect, which can also be attributed to the strong predominance of the informal sector where employment is very precarious.

In the other urban centres, the contribution of the two components was almost in the same proportion and in the opposite direction. The results about the poverty incidence suggest that there is a need for higher levels of economic growth for this to have a significant impact on poverty in Lomé, given that the negative effect of redistribution, which appears to be more unequal, should first of all be compensated for. This negative effect is attributable to the strong disparities in consumption expenses in the urban area of Lomé. Both the other urban areas and the rural areas of the country already enjoyed a redistribution that had a positive effect on poverty reduction, meaning that poverty was sensitive to a little amount of growth.

In relation to regions, the results show that the growth component contributed to reducing poverty in Grand Lomé, Maritime, Kara and Savanes, but to worsening it in the Plateaux and Centrale regions.

The income redistribution component contributed to a worsening of poverty in the Grand Lomé, Plateaux and Centrale regions but contributed to its reduction in the other regions. The biggest reduction in poverty incidence was observed in the Maritime region, where it was essentially due to the growth component, which had the largest contribution (-16.37%) in the entire decomposition. The worsening of poverty observed in the Plateaux and Centrale regions was due to the combined effects of economic growth and income redistribution. Similarly, the drop in poverty incidence observed in the Maritime, Kara and Savanes regions was due to the same effects. Indeed, in these three regions, income redistribution was conducive to poverty reduction, which means that the growth in income recorded in Togo between 2006 and 2011 contributed to reducing its poverty levels. Poverty in these regions was thus sensitive to a small amount of growth, which was not the case in the Grand Lomé region (which also experienced a reduction in poverty). With an income redistribution that is detrimental to poverty, there is need for more growth for this to have an impact on poverty. In the Plateaux and Centrale regions, where poverty worsened, a stronger

growth capable of compensating for the negative effects of redistribution is necessary for it to have a significant impact on poverty, since income redistribution in the two regions was found to be detrimental to growth.

Regarding socioeconomic groups, the growth component contributed to poverty reduction for public sector employees, the self-employed in the agricultural sector, and the unemployed or inactive persons. It contributed to worsening poverty for private sector employees and the other groups of the self-employed. Within the groups that experienced a worsening of, or a drop in, poverty incidence between 2006 and 2011, it was because of the combined effect of the two components going in the same direction. In the case of public sector employees, the self-employed in the agricultural sector, and the inactive persons, income redistribution contributed to reducing the poverty incidence, but it did not in the case of private sector employees and the other groups of the self-employed. Therefore, while a little amount of growth is likely to be enough to reduce the poverty incidence for the former three groups, for the latter two a significant amount of growth will be necessary for it to be able to compensate for the detrimental effect of income redistribution.

In relation to the level of education of the head of household, the results indicate that, on the whole, there was a worsening of poverty except for the levels of "primary school" and "partial secondary school" (although to a low extent in the latter case). The worsening was due to both economic growth and income redistribution, except in the case of the "full secondary school level" group and the "higher education level", where the worsening was essentially due to income redistribution, since economic growth tended to contribute to poverty reduction. For the groups headed by people without formal education, or by those with just primary school or a partial secondary school education level, the income transfer went from the less poor to the poorest. This suggests that a little amount of growth will be enough to reduce the poverty incidence. For the groups headed by people with a full secondary school level and a higher education level, income redistribution was detrimental to the poor, which means that a strong growth capable of compensating for this detrimental effect will be necessary.

The results reported above show that to have a significant reduction in poverty (in terms of poverty incidence) in Togo, strong economic growth must be promoted, for example by investing in the highly productive sectors. Moreover, income redistribution policies that are favourable to the poorest must be a component of the fight against poverty to enhance its effectiveness. In other words, policy makers will have to create opportunities that can enable households to increase their revenues and at the same time will have to promote a more equitable redistribution of income. Looking at the urban and rural areas globally, it transpires from the results that the fight against poverty in urban areas must focus on a better redistribution of income (hence a reduction in inequality), while in the rural areas the emphasis must be laid on increasing household income (hence, growth).

Explaining the differences between rural and urban poverty

This section first presents the determinants of poverty identified by using a qualitative model of the Probit type. These results were obtained by estimating the probability of each poor household being poor in the whole country, then separately in the rural area (Group A) and in the urban area (Group B). These estimations were made for the two years of study, 2006 and 2011. To explain poverty, there is agreement in the empirical literature on four categories of explanatory variables: (i) geographical location; (ii) household characteristics and those of the head of household; (iii) the socio-economic status of the head of household, which reflects the opportunity for household gains on the labour market; and (iv) having money or other means of livelihood, whose significance in the explanatory factors for chronic poverty has been particularly highlighted by the research done by the Chronic Poverty Research Centre (CPRC). This study also decomposed the differences in the average probabilities of being poor between rural and urban areas into effects due to household characteristics and those due to their coefficients, in line with the methodological approach described earlier.

A model for accounting for poverty

The results of this model show that of all the demographic characteristics considered, only household size had a positive influence on the household's likelihood of being poor, while age of the head of household and the variable representing the life cycle (the age of the head of household squared) were found not to be significant, except in rural areas and for the year 2011. This was true for the whole country.

The variables that represented access to basic services (time of access to primary school, time of access to health centre, time of access to public transport, time of access to the food market) were all found not to be significant as explanatory factors for poverty in Togo. However, for the year 2006, both access to public transport for all the areas of residence and access to the food market for the entire country and the rural areas were found to be significant factors.

The variables representing cash possessions or other means of livelihood (the area of agricultural land possessed, the number of head of livestock possessed, money from remittances, and the current value of durables) were all found to be significant as explanatory factors for poverty in Togo. Indeed, for a household to have these possessions was found to considerably reduce the probability of it being poor. This suggests that reducing poverty in Togo can be based on improving poor households' means of livelihood.

Table 2: Results of the explanation of poverty in Togo according to area of residence

Variable	2006			2011		
	Overall	Rural	Urban	Overall	Rural	Urban
Age of the HoH squared	-0.00176	-0.000470	0.00138	0.0203	0.161***	-0.0412
	(0.00905)	(0.0113)	(0.0163)	(0.0269)	(0.0532)	(0.0387)
Age squared/100	6.29e-05	5.74e-05	4.91e-05	-0.000263	-0.00168***	0.000297
	(9.19e-05)	(0.000113)	(0.000170)	(0.000280)	(0.000541)	(0.000424)
Sex of the HoH (Reference: Male)	-0.221***	-0.0972	-0.304***	-0.347*	-0.467	-0.470**
	(0.0628)	(0.0917)	(0.0893)	(0.184)	(0.397)	(0.235)
Household size	0.467***	0.496***	0.441***	0.412***	0.468***	0.430***
	(0.0151)	(0.0223)	(0.0212)	(0.0363)	(0.0764)	(0.0462)
Remittances	-2.43e-07***	-9.81e-07***	-1.57e-07**	-0.681***	-1.450***	-0.521***
	(7.18e-08)	(2.98e-07)	(7.78e-08)	(0.108)	(0.276)	(0.130)
Number of head of livestock	-0.0126**	-0.0228***	-0.00396	-0.292***	-0.346***	-0.259***
	(0.00549)	(0.00843)	(0.00671)	(0.0559)	(0.110)	(0.0704)
Area of agricultural land	-0.648	-6.388**	-0.438	-0.295***	-0.262**	-0.312***
	(0.544)	(2.805)	(0.645)	(0.0609)	(0.118)	(0.0792)
Current value of durables	-0.0860***	-0.0775***	-0.0956***	-0.195***	-0.157	-0.247***
	(0.00803)	(0.0101)	(0.0139)	(0.0586)	(0.131)	(0.0733)
Amount of pastime for children	-0.00236***	-0.00283***	-0.00228*	-0.280***	0.00852	-0.419***
	(0.000707)	(0.000854)	(0.00138)	(0.0556)	(0.118)	(0.0759)
Dependency ratio	0.000925**	7.28e-05	0.00158***	0.00829***	0.0119***	0.00667***
	(0.000411)	(0.000710)	(0.000517)	(0.00154)	(0.00340)	(0.00195)
Access to basic social services						
Time of access to the food market	0.0394*	0.0500**	-0.0198	0.0686	0.209*	0.0417
	(0.0203)	(0.0236)	(0.0449)	(0.0631)	(0.119)	(0.0879)
Time of access to the health centre	0.0199	-0.00150	0.0632*	-0.0434	-0.0755	-0.0433
	(0.0212)	(0.0260)	(0.0383)	(0.0547)	(0.108)	(0.0721)
Time of access to primary school	-0.0440	-0.0567	-0.0459	-0.118*	-0.152	-0.130
	(0.0351)	(0.0433)	(0.0632)	(0.0602)	(0.107)	(0.0843)
Time of access to public transport	0.0787***	0.0624**	0.122*	0.0142	-0.0693	0.0708
	(0.0245)	(0.0274)	(0.0640)	(0.0793)	(0.167)	(0.101)
Level of formal education of the HoH (Reference: No formal education)						
Primary school	-0.262***	-0.193*	-0.416***	-0.185	0.390	-0.484*
	(0.0809)	(0.102)	(0.140)	(0.192)	(0.339)	(0.267)

contd.

Variable	2006			2011		
	Overall	Rural	Urban	Overall	Rural	Urban
Partial secondary school	-0.383***	-0.288***	-0.491***	-0.265	0.0900	-0.514*
	(0.0701)	(0.0927)	(0.112)	(0.205)	(0.430)	(0.271)
Full secondary school	-0.586***	-0.709***	-0.528***	-0.494*	-0.745	-0.611*
	(0.130)	(0.207)	(0.176)	(0.253)	(0.585)	(0.322)
Higher education	-0.986***	-0.847***	-1.046***	-0.861**	-0.433	-0.919**
	(0.129)	(0.239)	(0.168)	(0.404)	(1.156)	(0.464)
Socioeconomic group of the HoH (Reference: public sector employees)						
Private sector employees	0.0375	0.289	-0.0228	-1.586***	-1.851***	-1.815***
	(0.105)	(0.194)	(0.130)	(0.286)	(0.494)	(0.604)
Self-employed in agriculture	0.476***	0.430***	0.541***	0.939***	1.065**	1.120***
	(0.0930)	(0.141)	(0.173)	(0.208)	(0.461)	(0.275)
Other groups of self-employed	0.0242	-0.0660	0.0861	-0.0680	-0.504	0.0865
	(0.0892)	(0.148)	(0.113)	(0.218)	(0.474)	(0.283)
Unemployed / inactive persons	0.281***	0.459***	0.151	0.783***	1.276**	0.693**
	(0.100)	(0.165)	(0.132)	(0.274)	(0.609)	(0.340)
Geographical region of the household (Reference: Grand Lomé)						
Maritime	0.884***		0.621***	0.623**	0.589	0.773**
	(0.0755)		(0.165)	(0.302)	(1.025)	(0.359)
Plateaux	0.341***	-0.599***	0.328***	0.350***	0.461***	0.174
	(0.0749)	(0.0814)	(0.121)	(0.0637)	(0.124)	(0.319)
Centrale	1.151***	0.463***	0.773***	0.869***	0.912***	0.718***
	(0.0846)	(0.106)	(0.119)	(0.0702)	(0.134)	(0.0965)
Kara	1.077***	0.260**	0.922***	0.610***	0.544***	0.558***
	(0.0842)	(0.103)	(0.120)	(0.0671)	(0.128)	(0.0935)
Savanes	1.487***	0.733***	1.225***	0.941***	1.244***	0.724***
	(0.122)	(0.152)	(0.195)	(0.0756)	(0.150)	(0.0978)
Constant	-1.857***	-1.129***	-1.663***	-1.503***	-0.581***	-1.256***
	(0.264)	(0.342)	(0.425)	(0.123)	(0.153)	(0.196)
Observations	5,446	3,051	2,395	5,491	3,052	2,439
Prob > chi2	0,000	0,000	0,000	0,000	0,000	0,000
Predicted probability of being poor- (Observed)	0.629(0.617)	0.768(0.751)	0.369(0.366)	0.614(0.587)	0.718(0.734)	0.372(0.358)

HoH = Head of Household; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1
Source: Author's compilation based on data from the 2006 and 2011 QUIBB surveys

The variables that represent household characteristics and those of the head of household (such as household size, level of formal education and gender of the head of household) were found to be explanatory factors for poverty in Togo. Indeed, irrespective of area of residence, the variable "household size" significantly increased the probability of being poor. Similarly, the higher the level of education for the head of household, the considerably lower the probability of his/her household being poor.

The household's geographical location, represented by the variable "region", was also found to be a significant factor in explaining poverty: the probability of a household being poor increased relative to the reference region, namely "Grand Lomé". This result means that policies aimed at compensating for regional imbalances in Togo are likely to contribute to poverty reduction.

To represent the opportunity of households' gains on the labour market, the socio-economic status of the head of household was used (that is the socio-economic group to which he/she belonged). The sub-groups considered were the following: public sector employees, private sector employees, the self-employed in the agricultural sector, the other groups of self-employed, and the unemployed/inactive persons. The results show that the probability of a household being poor increased for the self-employed in the agricultural sector and the unemployed/inactive persons for the two periods studied and irrespective of area of residence.

The results of the different regression analyses enabled this study to compute the predicted poverty incidence (or the average probability of being poor) for each area of residence, and the differences between urban and rural areas for the two years (2006 and 2011) of study. These differences were estimated to be 0.3802 in 2006 and 0.3491 in 2011. This means that poverty in the rural areas was 0.3802 times (in 2006) and 0.3491 times in (2011) higher than that in urban areas. It can thus be concluded that poverty in Togo is a rural phenomenon.

Decomposition of the poverty differences

As pointed out in the methodology section, the decomposition technique used in this study is that developed by Fairlie (2006) and applicable to non-linear regression. The results are presented in Table 3 below.

The results show that the differences between rural and urban poverty reduced between the two periods, falling from 0.3802 to 0.3491. For the two years, poverty was essentially due both to the differences in characteristics and those in their coefficients, namely 0.2759 (72.57%) in 2006 and 0.2019 (57.83%) in 2011. This means that the differences taken into account in the regression analysis accounted for 72.57% (for the year 2006) and 57.83% (for the year 2011) of the poverty gap between the rural and urban areas in Togo. In other words, if the households living in the two areas (rural and urban) had the same characteristics, the differences in the predicted probability of being poor would fall from 0.3802 to 0.1043 (for the year 2006) and from 0.3491 to 0.1472 (for the year 2011). This shows the predominance of the difference between

characteristics in accounting for the aggregate poverty in Togo. The people living in the rural areas were poorer because they had fewer possessions than those living in the urban areas. Thus, it is not the lower yields of their possessions that are the cause of the differences observed between the two areas of residence. Moreover, the fact that the differences related to the structural component fell between the two periods suggests that the target programmes implemented by the government and its partner development agencies, and which are aimed at increasing people's possessions in the rural areas must be encouraged. Therefore, the government interventions aimed at increasing the quantity of these possessions are essential for poverty reduction and should be given priority over those aimed at increasing their quality (their yields).

Table 3: Non-linear decomposition of the rural-urban gap in the predicted probability of being poor

	2006		2011	
	Effects	Standard errors	Effects	Standard errors
Rural poverty	76.80		72.01	
Urban poverty	38.88		37.10	
Difference	38.02		34.91	
Effect due to the coefficients	10.43		14.72	
Effect due to the characteristics	27.59		20.19	
Age of the head of household (HoH)	0.00127	(0.0168)	0.0138***	(0.0047)
Age of the HoH squared	0.0127	(0.0181)	-0.0472***	(0.0157)
Sex of the HoH (Ref.: Male)	-0.0241		0.00363	
Household size	0.0906***	(0.00389)	0.0749***	(0.0127)
Remittances	0.00417***	(0.00154)	0.00747***	(0.00118)
Number of head of livestock	-0.000824	(0.000757)	0.00315***	(0.00115)
Area of agricultural land	-0.0128*	(0.00718)	0.0060	(0.0103)
Current value of durables	0.0449***	(0.00549)	0.0202***	(0.00207)
Amount of children's pastime	-0.00974*	(0.00532)	0.00138	(0.0164)
Dependency ratio	-0.00454***	(0.00158)	0.0263***	(0.00731)
Time of access to the food market	0.000745	(0.0105)	0.00225	(0.00639)
Time of access to the health centre	0.0116	(0.00717)	-0.00125	(0.00238)
Time of access to primary school	-0.00164	(0.00425)	-0.00175	(0.00754)
Time of access to public transport	0.0238*	(0.0122)	-9.45e-05	(0.00149)
Level of education for the HoH (Ref.: No formal education)	0.0295		0.0320	
Primary school level	-0.0053***	(0.00161)	-0,00712***	(0.00121)
Partial secondary school	0.0059***	(0.00180)	0,00821***	(0.00140)
Full secondary school	0.0069***	(0.00210)	0,00759***	(0.00129)
Higher education	0.019***	(0.00578)	0,0201***	(0.00342)
Socio-economic group (Ref.: public sector employees)	-0.000830		-0.00330	
Private sector employees	-0.0008***	(0.00015)	-0.00317***	(0.00041)
Self-employed in agriculture	0.0021***	(0.00038)	0.00835***	(0.0011)
Other types of self-employed groups	-0.0017***	(0.00031)	-0.00677***	(0.00089)
Unemployed/Inactive persons	-0.00021**	(0.00004)	-0.00083***	(0.00011)
Region (Ref.: Grand Lomé)	0.111		0.0678	
Maritime	0.0342***	(0.00306)	0.0125***	(0.00103)
Plateaux	0.0265***	(0.00237)	-0.0173***	(0.00142)
Centrale	0.0317***	(0.00283)	0.0254***	(0.00209)
Kara	-0.0161***	(0.00144)	0.0171***	(0.0014)
Savanes	0.0243***	(0.00217)	0.2081***	(0.0171)

HoH = Head of Household; *** p<0.01, ** p<0.05, * p<0.1

Source: Author's compilation based on data from the 2006 and 2011 QUIBB surveys

The results obtained for the area of residence corroborate those already obtained in the previous decomposition into economic growth and income redistribution components. Indeed, the latter results showed that it was necessary to increase rural

households' incomes if there was to be a significant reduction in poverty in the rural areas. Similarly, the present results suggest that it is necessary to increase households' possessions, which are the very means needed to increase their revenues.

An analysis of the disaggregated effects shows that characteristics such as geographical location (in terms of regions), the level of education of the head of household, his/her possession of durables, and household size were found to be determining factors explaining the poverty gap observed between the two areas of residence. This study's results show that the differences in geographical location (region) and household size accounted for 29.2% and 24.0%, respectively, of the poverty differences between rural areas and urban areas in 2006, against 19.40% and 21.45% in 2011. In other words, if all the households were located in the same region (Grand Lomé), and had the same number of members, the poverty differences between rural and urban areas would drop from 0.111 to 0.0678 (for the year 2006) and from 0.0906 to 0.0749 (for the year 2011). Likewise, when the level of education of the heads of households in rural areas was compared to those in urban areas, the poverty differences between the two areas dropped by 0.0295 (i.e. 7.76%) in 2006 and by 0.0320 (i.e. 9%) in 2011. When households in rural areas and those in urban areas possessed the same current values of durables, the poverty differences between the two areas dropped by 0.0449 (i.e. 11.00%) in 2006 and by 0.0202 (i.e. 5.78%) in 2011.

It transpires from the analyses above that the interventions aimed at increasing the quantity of the rural households' possessions (and thus at reducing the differences in characteristics) should be related to the variables "geographical location", "possession of durables", and "level of education". Therefore, the trends in the proportion (of 10.43% in 2006 and 14.72% in 2011) of the coefficient effect (yields of the possessions) shows that an enhanced quality, coupled with an increased quantity, of the possessions can also serve as an effective policy for poverty reduction.

6. Conclusion

The aim of this study was to provide elements that would enable a better comprehension of the poverty phenomenon in Togo through an analysis of the disparities in well-being between rural and urban areas, and an assessment of the impact of economic growth and inequality in income redistribution on poverty between 2006 and 2011. The methodology used consisted in decomposing the variation in poverty into two components (growth and redistribution) using the approach used by Shorrocks (1999) and in explaining the rural-urban poverty differences using the Blinder-Oaxaca (1973) decomposition.

The growth-income redistribution analysis showed that the growth component was a determining factor in significantly reducing the poverty incidence. It follows from this analysis that it is necessary to complement any growth policy with income redistribution policies that are pro-poor to enhance its effectiveness. This recommendation is all the more appropriate in the case of the urban area of Lomé because inequalities in income redistribution (that is the strong disparities in consumption expenses) in this region were found to contribute to a worsening of poverty, while in the case of rural areas, the poverty reduction resulting from the income redistribution effect was found to be greater than that resulting from the income growth effect. It is, therefore, important to integrate into Togo's poverty reduction strategy ambitious income redistribution policies that are likely to benefit the most destitute. Income redistribution policies (related to taxation and social spending) are often not aimed at the right target or do not easily reach their target households, and the poorest of them in particular, are largely dependent on the revenues they hope to get from the type of employment that occupies them. For poor households, this employment is essentially in the informal sector, one which has been expanding rapidly and which is characterized by very low wages in the urban areas. That is why an improvement in the living standards of urban households still hinges on the dynamics of a labour market that is capable of laying the foundations of a growth capable of creating better-quality employment.

The results of this study's analyses show that poverty in Togo can be accounted for by household size, the level of education of the head of household, the region where he/she lives, his/her monetary possessions and other means of livelihood (the area of his/her agricultural land, the number of the head of his/her livestock, the current value of his/her durable goods and the remittances he/she receives), and his/her

occupational status (on the labour market) irrespective of his/her area of residence.

The decomposition of the poverty differences between rural and urban areas enabled this study to show that the differences in the characteristics (that is the differences in possessions) of rural households and those of urban households were capable of accounting for the poverty differences between the two areas of residence. This result thus suggests that the process of reducing poverty differences between rural and urban areas and throughout the country must focus on increasing the poor rural households' incomes (that is increasing their possessions in quantity) by implementing programmes aimed at increasing production. This confirms Klasen's (2001) remark that "the experience of virtually all successful developers suggests that rapid growth and poverty reduction always involve an emphasis on improving productivity and incomes in agricultural and non-farm rural occupations."

Notes

1   The measures envisaged in this document centre around the following four main lines: (i) acceleration of economic growth aimed at reducing poverty; (ii) development of social sectors, human resources and employment; (iii) sustainable management of natural resources and the environment; and (iv) promotion of good governance.

2   The United Nations Development Programme.

3   The Unified Questionnaire on the Basic Indicators of Well-being (Questionnaire Unifié des Indicateurs de Base du Bien-être, QUIBB).

4   A 2000 to 2012 average.

5   Banque Mondiale (World Bank, 2010), "Togo – Country Economic Memorandum and Diagnostic Trade Integration Study", September 2010, page 72.

6   Any increase in the average income, keeping inequality unchanged, contributes to reducing the poverty rate.

7   Any reduction in inequality, keeping the average income unchanged, contributes to reducing the poverty rate.

8   The poverty incidence is used because it is part of the class of FGT decomposable indexes developed by Foster, Greer and Thorbecke (1984), which are the best known criteria for analysing and decomposing poverty by population groups.

9   The poverty line is a limit below which a household or an individual is considered poor. It can be relative (that is, defined in relation to a general distribution of the well-being indicator) or absolute (that is, defined from certain absolute standards based on items that households must have to cover their basic needs). Ravallion (1996) provides an overview of the methods for determining this poverty line. Among them are the direct intake of calories, the quantity of food consumed, and the estimation of the cost of basic necessities.

10 This command was preferred to the "nldecompose" command, which offers only aggregate effects and not the individual contributions of variables. The advantage of the "fairlie" command is that in addition to aggregate effects, it offers the individual contributions of all the variables.

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