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SDG 1 2030 for Ending Poverty- Can Albania Achieve this Goal?

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Abstract: Objectives: The main objective of this study is to analyze the multidimensional aspects of poverty in the case of Albania, to explore and identify the individual factors or characteristics that determine the state of poverty, in order to propose programs and targeted policies according to the region and according to individual and family characteristics. **Prior Work:** A considerable amount of studies have focused on the determinants of poverty in order to better understand the dimensions and structure of poverty. While income/expenditure has been shown to influence subjective perceptions of poverty, other characteristics such as family size, employment status, and region have also been shown to be important and are also the focus of this study. **Approach:** The study relies mainly on primary data supplemented and supported by secondary data. Primary data were collected through surveys using structured questionnaires and consultation with experts in the field. Secondary data were obtained from various publications such as books and websites. **Results:** The results of the econometric model showed that household size and residence are the factors that affect the well-being of the households in the sample. **Implications:** In accordance with the results of this study, policy makers and organizations can initiate policies that target the regions and social groups with the greatest problems. **Value:** the binary model used in this study is a useful tool for analysis, policy-making, and monitoring purposes. It allows understanding of the factors that determine poverty and identification of vulnerable household groups. The results obtained should be used in the development of effective social policies.

Keywords: multidimensional; determinants; household; binary model

JEL Classification: Q01; I3; I32

1. Introduction

In recent decades, economists have sought to identify possible means to eradicate poverty, especially after the introduction of the United Nations Sustainable Development Goals. Goal 1 is to end poverty in all its forms everywhere. Poverty eradication is considered a critical development priority for both developing and developed countries. To achieve this goal, policymakers in developing countries in recent decades have sought either to promote economic growth, implement reforms, or a combination of both. However, the effectiveness of economic growth in reducing poverty is highly dependent on the successful implementation of reform measures, which in turn contribute to sustainable development and therefore lead to different poverty rates across countries (Raimi, et al. 2015). Given this complexity and the existence of various trade-offs, the authors argue that a country pursuing sustainable development can easily strike the right balance and achieve the best policy outcomes in terms of poverty reduction and other conditions. Poverty is a rather complex phenomenon that encompasses several dimensions.

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The World Poverty Clock shows for the year 2020 that over 712 million people in the world live in extreme poverty (World Poverty Clock, 2020). Poverty can be defined in terms of income as well as non-income measures such as education, health, and access to basic services. In Albania, according to the Living Standard Measurement Survey, 2012 (revised), the poverty line is based on consumption expenditure and is estimated at 4,891 ALL (44.4 €) per capita per month. A household is considered poor if its per capita consumption expenditure falls below the poverty line required to meet basic food and non-food needs. The main objective of this study is to analyze the multidimensional aspects of poverty in the case of Albania, to explore and identify the individual factors or characteristics that determine the state of poverty in order to propose programs and targeted policies according to the region and individual characteristics. The ubiquity of poverty is one of the reasons for the recent focus on poverty reduction policies. The binary model used in this study is a useful tool for analysis, policy design, and monitoring purposes. It allows understanding of the determinants of poverty and identification of vulnerable household groups. Section 2 provides an overview of available poverty studies in Albania. Section 3 presents the literature review. Section 4 describes the methodology and Section 5 discusses the results of the estimations. Finally, some concluding remarks are made in Section 6.

2. SDG 1 no Poverty- the Situation in Albania

In 2020, poverty is estimated to have increased by 2 percentage points due to the November 2019 earthquake and the COVID -19 pandemic. Thank you to strong GDP per capita growth, poverty is projected to have declined significantly, from 34.4% in 2020 to 25.2% in 2022, and to fall by another 1.3 percentage points in 2023. However, persistent inflationary pressures could sharply reduce real income growth among poor and vulnerable households and dampen poverty reduction (World Bank, 2023). According to the 2021 Living Conditions Survey (EUSILC), the at-risk-of-poverty threshold for a single-person household in 2021 was set at 191,791 ALL, compared to 186,242 ALL in 2020. The number of people at risk of poverty increased by about 0.2%. In the last twenty years, an average of 20% of the population lived in absolute poverty in Albania. The lowest rate was reached in 2008 with 12.4% (373 137 people) living below the poverty line, and the highest rate was registered in 2002 with 25.4% (813 196 people). The Albanian government spent an average of 2,6% of GDP on SDG 1 between 2015 and 2019. Spending on SDG 1 is mainly through cash benefits under the Albanian Poverty Reduction Programme and other social transfer programmes. The cash programme is composed of two main subprograms: Cash Benefits for Poverty Alleviation (Social Assistance - ndihma ekonomike NE) and Cash Benefits for Persons with Disabilities to cover their care costs and compensate them for their inability to work, administered by the Ministry of Social Affairs. The third component of the programme includes social welfare activities; however, its share of the total programme budget is very modest (Braho & Ymeri, 2021)

Table 1. 2 SDG 1 Related Expenditure 2015 – 2019 Per Capita and in % of GDP

SDG 1	2015	2016	2017	2018	2019
Per capita spending (Lek)	24 033	25 298	26 256	27 412	29 062
In % of GDP	2,4%	2,5%	2,6%	2,7%	2,9%

Source: Braho A., Ymeri S., (2021)

People living in rural areas, especially in remote rural and mountainous areas, have a lower standard of living than people living in other parts of the country because there are few employment opportunities and income from employment is relatively low. Of particular concern is that there are few employment opportunities for young people in rural areas. Poverty is related to a variety of causes, including labour

market status, unemployment or inactivity, age, geographic location, ethnicity, education level, and other factors (UNDP, 2011). Poverty can also be attributed to people who are in work and earn very low wages. In Albania, the “working poor” earn about 17% less than the working non-poor and, if informally employed, also lack social security entitlements and access to old-age pensions (MSWY, 2014). The measurement of poverty in Albania is not consistent due to changes in the definition of poverty. According to the World Bank 2020, Albania's last official poverty figures are from 2012, when the poverty rate was 39.1% (measured as \$5.50 per day, 2011 PPP) and extreme poverty was 1.1% (calculated as \$1.90 per day, 2011 PPP). In 2019, Albania started publishing the Survey on Income and Living Conditions (SILK) according to Eurostat methodology. Poverty indicators on SILK are based on the relative poverty concept, which takes into account disposable household income, number of household members (household size), and income distribution among population groups. The at-risk-of-poverty rate in Albania is 21.8% in 2020, compared to 23.7% in 2017.

3. Literature Review

The problem of poverty is a major concern worldwide, and researchers in developed and developing countries have conducted studies to examine the factors that influence poverty and its limits. Previous studies have focused on identifying factors that contribute to poverty using household-level data, specifically analyzing characteristics of the household head such as age, gender, and education. Results have shown that these variables are significant determinants of poverty. The article presents pioneering work in the use of binary choice models to analyze poverty. (Lethbridge & Phipps, 2005) In this study of the situation in Canada, the dependent variable was a dummy variable set to 1 if the household's gross income was below the poverty line and set to 0 otherwise. Other research on the determinants of poverty using binary choice models include: (Seeth, et al. 1998; Elmelech & Lu, 2004; Rusnak, 2012). The logistic regression analysis conducted by (Sekhampu, 2013) found that household size, employment status and age of the household head are the most important predictors of poverty. Most studies on poverty in Albania use expenditure and consumption data, and therefore use the poverty line determined by the cost of basic needs method from the data of the Living Standards Surveys in Albania. Although there is a considerable amount of literature on poverty measurement, there are few studies that focus on identifying the factors or determinants of poverty. In the World Bank (2003) report, Canova L. (2006) on poverty in Albania, the results of multivariate analysis using LSMS 2002 data confirmed high correlations between education, higher proportions of members with secondary education and above, large households, number of children, proportion of unemployed family members, and poverty. Dragusha B., Miruku G. (2014) find a significant statistical correlation between the number of household members and the risk of being poor in their study based on LSMS 2012 data. Betti G., et al. (2018) present the results of the new poverty and inequality maps in Albania based on 2012 LSMS data and 2011 census and find a significant association between region and the risk of being poor.

4. Methodology

The variable explained in the model is dichotomous, i.e., it takes the value 1 if the household is poor and 0 otherwise. In such cases, where Y is a dummy variable, binary choice models (probit and logit models) should be applied. The basic idea of this model is to determine the relationship between the probability (P_i) that Y takes the value 1 and the characteristics of the considered individuals. According to Greene W.H., (2000) a general class of binary choice models assumes that:

$$P_i = P(y_i=1) = F(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki})$$

he logit model has an advantage over the probit model in that the effects of changes in the explanatory variables can be interpreted in terms of odds ratios. Odds are defined as the ratio of two probabilities probabilities P_i and $1 - P_i$. The exponential relationship provides an interpretation of the odds ratio (OR). When X_j changes by one unit, odds are expected to change by a factor of $\exp(\hat{\alpha}_j)$, holding all other variables constant.

The study relies mainly on primary data supplemented and supported by secondary data. The primary data were collected through surveys using structured questionnaires and consultation with experts in the field. The study population consists of 845 families living in both urban and rural areas in December 2022. Questionnaire questions were entered into a Google form completed by the head of the household or another person on his or her behalf. The questionnaire included questions about the demographic data of the household head, such as age, gender, education level, employment status, and employment sector. The survey also asked for family data, including household size, place of residence, average monthly income, average monthly consumption expenditure, whether family members are emigrants, and whether or not they receive social assistance. The household is considered poor if its monthly equivalent expenditure is below the poverty line. The parameters of the logit models are estimated using Stata statistical software. The following explanatory variables were selected as possible determinants of poverty: age of household head (in years), education level of household head (1 = secondary or higher, 0 = other), employment status of household head (1 = employed, 0 = other), gender of household head (1 = male, 0 = female), Household size (total number of members in the household), Place of residence (1 = urban, 0 = rural), Family in emigration (1= if there are family members in emigration and 0= otherwise), Social assistance (1= if any of the types of social assistance is received and 0= otherwise).

5. Results

The model presented in Table 2 obtains the following goodness-of-fit values: pseudo- $R^2 = 0.193$ and count $R^2 = 0.865$. To check the validity of our model presented in Table 2, we apply the *linktest*. We find that at a significance level of 0.05, there is no reason to reject the null hypothesis that there is no evidence of misspecification.

Table 2. Results of the Estimation of the Binary Logit Model

Variable	Estimated parameter	Standart error of parameters	Z statistics	Odds ratio	Standart error of odds ratio
Educ	-4.772	0.817	-5.840	0.008	0.007
Age	-0.023	0.003	-7.66	0.978	0.003
Female	0.382	0.043	8.88	1.539	0.090
H_Size	0.288	0.038	7.57	1.333	0.051
Unemployment	0.760	0.079	9.62	2.138	0.170
Resid_rural	0.324	0.065	4.984	1.383	0.090
Resid_urban	-0.163	0.067	-2.43	0.850	0.057
Social_assis	0.431	0.060	7.18	1.539	0.093
Emig	-0.007	0.003	-2.33	0.993	0.003
Constant	-1.720	0.200	-8.6	-	-

Source: author calculations made in the Stata

Under the ceteris paribus assumption, some important results can be derived. The probability of being poor is greater for households whose reference person is a woman than in the case of a man; it is lower in rural areas than in urban areas; and it depends on the interaction between household size and other characteristics such as the educational level of the household head, the number of emigrated family

members, and the number of unemployed persons in the household. In this study, the age of the household head and education were negatively associated with the probability of being poor. This result is consistent with the results of multivariate analysis in the study by Canova, 2006. Household size, place of residence, and employment were important factors in determining poverty in this study. Household size was not found to be significant in the multivariate analysis in the study by Dragusha B. and Miruku G. (2014). The World Bank (2003) report found a positive relationship between household size and poverty in Albania, and the same result was found by Canova, 2006; Betti, et al 2018.

6. Conclusion

This study examined the impact of various factors on household poverty in Albania. The results showed that household size, living in a rural area, gender, unemployment, and social assistance are positively correlated with the probability of being poor. Conversely, age, living in an urban area, and having a family member living in emigration are negatively associated with the probability of being poor.

Binary choice models are useful for analyzing and identifying factors that determine poverty and vulnerable groups. The results can be used to develop effective social policies that include direct assistance to poor households and long-term interventions that focus on education, rural development, and reducing underemployment... The results of this study have some limitations. The sample size was small and did not cover all regions of the country. The study examined only some determinants of poverty and omitted other important factors such as health, number of employed members, housing, and household assets; future research should focus on these factors and obtain a larger data set for a more comprehensive analysis. Further research is needed to help policymakers design pro-poor policies, including analysis of poverty dynamics and the effects of different transfer and tax policies over time. The availability of panel data is necessary for such analysis

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