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A Hypothesis on Poverty Change in Albania (2007-2016)

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***Abstract:** The aim of this paper is to investigate the poverty changes in Albania using data coming from the Household Budget Surveys conducted in 2007-2016 by the Albanian National Statistics Institute (INSTAT). In particular, we employ the static and dynamic approaches to evaluate the effect of growth and inequality on poverty variation both at national and macro-region level. To better understand the effect of economic growth on poverty change, we also perform two simulations that account for two scenarios of economic growth. The results show that: (i) the increase in poor population is due to the lack of growth in consumption; (ii) the improvement in the distribution of consumption has stopped further increases in poverty level. Finally, the findings of the two economic growth simulations show that an economic growth without an increase in inequality could reduce poverty in all its dimensions.*

Keywords: FGT class index, poverty, poverty decomposition, elasticity of poverty, Albania

I. INTRODUCTION

This paper focuses on poverty levels and changes in Albania in the period 2007-2016. Over the years, the issues on poverty reduction have drawn attention and the debate focused on the effect of economic growth on poverty reduction. If there is little doubt that economic growth leads to poverty alleviation, there are issues and heterogeneities to be taken into account (Bourguignon, 2003; Kakwani et al., 2004; Ravallion, 2004; Lucas and Timmer, 2005.). The effect of economic growth on poverty reduction differs among countries and it depends also on the rate of income growth, the initial level of inequality, and changes in the level of inequality (Bourguignon, 2003; Klasen, 2006). In the literature there are two points of view on the relationship between economic growth and poverty (Škare and Družeta, 2016). According to the 'trickle-down theory' the economic growth reduces poverty when the income distribution remains constant. Those who support this theory state that benefits of a high economic growth trickle down to the poor. Hence, to reduce poverty policy makers should implement policies to stimulate the economic growth (Aghion and Bolton 1997; Roemer and Gugerty 1997; Dollar and Kraay 2002; Norton 2002; Ravallion and Chen 2003; Thorbecke, 2013).

Conversely, the 'trickle-up theory' affirms that the economic growth worsens the standard of living of the poor because it is above all the middle classes and the rich who benefit from the growth process (Todaro, 1997) especially in countries with a high initial inequality. It follows that, the economic growth that worsens the income distribution can only lead to a little progress on poverty level reduction. Put differently, the second theory argues that the economic growth alone cannot reduce poverty, it must be accompanied by redistribution policies to shrink inequalities (Anwar, 2010; Fosu, 2017; Fosu, 2010; Mulok et al, 2012; Bigsten and Levin, 2000; de Janvry and Sadoulet, 2000; Ravallion and Datt, 2002; Bigsten et al., 2002) since reducing inequality level means to bring down poverty. Thus, the link between growth and poverty depends also on the relationship between growth and inequality (Gakuru and Mathenge, 2012).

Several empirical researches were carried out to examine the relationship between economic growth and inequality, and their effect on poverty level to understand how the income growth linked to economic growth is distributed among the population since changes in the distribution of income could have an impact on the poverty level (Nikoloski and Gveroski, 2017; Bourguignon, 2003). Different approaches have been

used to investigate the growth-poverty-inequality nexus; they can be distinguished into three groups : (i) the first group uses correlation and regression analysis (Hasan et al., 2009; Ncube et al., 2014; Kiaušienė, 2015; Jencova et al., 2015; Warr, 2015; Mikucka et al., 2017; Fosu, 2017); (ii) the second group applies Granger causality methods (Odhiambo, 2009; Akanbi and Du Toit, 2011; Jihene and Ghazi, 2013; Uddin et al., 2014; Amini and Dal Bianco, 2016; Rakotondramaro and Andriamasy, 2016) and finally (iii) the third one employs other economic methods such as elasticity, GMM or macro-economic modelling (Lenagala and Ram, 2010; Perera and Lee, 2013; Limanli, 2015; Fosu, 2017; Nikoloski and Gveroski, 2017, Dudzevičiūtė and Prakapienė, 2018).

In this paper, we investigate poverty changes in Albania during the period 2007-2016. In addition, this study also contributes to better understand the effect of economic growth on poverty variation. To this end, we perform two simulations that account for two scenarios of economic growth. In the first simulation the assumption is that economic growth is neutral in terms of inequality, conversely, in the second one the economic growth is not neutral causing an increase of 1% in inequality level. Until now, a part of literature explores the differences between monetary and multidimensional poverty (Ulman and Soltes, 2015; Bader et al., 2016; Suppa, 2016; Ballon et al., 2018); the dimension of poverty (Canova, 2006); its determinants (Audet et al., 2006); its spatial distribution (Zezza et al., 2005; Betti et al., 2017) and finally female poverty (Betti et al., 2020). Other studies investigate the poverty variation by using the Living Standard Measurement Survey (LSMS) conducted by the World Bank (Mastromarco et al., 2014; Biscione et al., 2018). Unlike the study carried out by Mastromarco et al. (2014), in our study we examine poverty change in Albania between 2007 and 2016 using another source of data. In fact, to evaluate the effect of growth and inequality at both national and macro-region level we exploit two cross-sectional surveys (Household Budget Survey - HBS) carried out by the Albanian National Statistical Institute on a sample of households equal to 5,689 in 2007 and 7,353 in 2016.

The remainder of the paper is organized as follows. In the next section introduces the definitions and poverty measures. Section 3 gives information on poverty distribution in Albania. Section 4 outlines the static analysis of poverty, section 5 discusses the prospects of poverty reduction and section 6 displays the dynamic analysis of poverty. Finally, the last section summarizes and concludes the paper.

II. DEFINITIONS AND POVERTY MEASURES

In order to evaluate poverty in Albania both at national and macro-region level we use a monetary approach. This is the widely used approach to identify and measure poverty and it considers income or consumption as the best possible proxy of well-being (Ruggeri et al., 2003). Hence, crucial are the information on income or consumption. In developing countries, consumer spending is preferred for these reasons: (i) income is more difficult to measure than consumption, especially when the informal sector is an important source of income (Martorano, 2018); (ii) income can be volatile while households tend to smooth out consumption (Langdon et al., 2018); and finally (iii) in rural areas, income changes from one season to another since it depends on the crop cycle. So, seasonal adjustments would lead to a distortion in the estimated income. In addition, to calculate net income in rural areas you need to account for both goods production and self-consumption of the population. For the analysis of poverty in the Albanian context, we use consumption as welfare indicator. We exploit the HBS (Household Budget Survey) surveys carried out by the Albanian National Statistical Institute. These surveys are conducted on a sample of households equal to 5,689 in 2006 and 7,353 in 2016. To divide the poor from the non-poor, we use a relative poverty line equal to 60% of the median (EUR 250). To quantify the poverty level, we follow the prevailing literature (Clarke and Erreygers, 2020; Wang and Man, 2019; Israeli and Weber, 2014;) that employs the FGT class of decomposable poverty measures developed by Foster-Greer-Thorbecke (1984). The general formula is:

$$P_\alpha = \frac{1}{N} \sum_{i=1}^N \left(\frac{Z - Y_i}{Z} \right)^\alpha I(Y_i \leq Z)$$

where Z is the poverty line, Y_i is the consumption of the household i , α is a poverty aversion parameter and N is the total number of households. $I(Y_i \leq Z)$ is a characteristic function such that:

$$I(Y \leq Z) = \begin{cases} 1 & \text{if } Y \leq Z \\ 0 & \text{if } Y > Z \end{cases}$$

Depending on the α value, this index assumes different forms. For $\alpha = 0$, the P_0 index measures the incidence of poverty that reflects the percentage of population below the poverty line. When $\alpha = 1$, the P_1 index quantifies the severity of poverty providing information on the distance between poor households and the poverty line. Finally, if $\alpha = 2$, the P_2 index identifies the severity of poverty that considers the distance between poverty line and inequality among the poor population.

III. POVERTY DISTRIBUTION IN ALBANIA

Using a relative poverty line, in 2007, almost 17% of Albanian households had a consumption below the poverty line. Between 2007 and 2016, the percentage of poor households increased significantly to 23.22%. Other forms of poverty also increased over the period considered. It is important to point out that the increase in poverty rates has not been homogeneous.

Table 1. Poverty Distribution in Albania

Poverty Indices	2007				2016			
	North	Centre	South	National	North	Centre	South	National
Incidence of Poverty	15.77	12.85	22.29	17.16	17.70	21.82	29.15	23.22
Intensity of Poverty	4.28	3.68	6.78	4.99	4.88	5.92	8.61	6.56
Severity of Poverty	1.83	1.51	2.98	2.14	2.15	2.34	3.85	2.80

Source: our calculation based on HBS 2007-2016

Both in 2007 and 2016 the northern prefectures are characterized by the lowest share of population in poverty. On the contrary, the south of Albania has revealed the highest number of households in poverty. Although the southern prefectures have a high number of families below the poverty line, it is up to the prefectures of the center to show a significant increase in the incidence of poverty of around 9%. Table 1 contains information on poverty both at national and macro-region level. Looking at the intensity and severity of poverty, for the years considered, there has been a slight reduction in these indices at national level while at the level of the disaggregation these indicators

have experienced a significant increase; in fact, it is always the southern prefectures that are marked by a higher intensity and severity of poverty than the other two regions.

IV. STATIC ANALYSIS OF POVERTY IN ALBANIA

The poverty change depends on two factors. The first is the increase in mean consumption if the consumption distribution does not change (growth effect); the second is the improvement in consumption distribution if mean consumption remains constant (inequality effect or effect of redistribution).

Different methodologies quantify the intensity of these effects. Kakwani (1993) proposed a static approach to evaluate the effect of these two factors by using the data coming from a single survey. This methodology allows to derive the sensitivity of poverty to mean consumption and to inequality.

On the other hand, in order to employ the dynamic approaches, information from time-repeated surveys (at least two) is required. These approaches divide poverty change into growth and inequality effect. The three methodologies are microeconomic and define poverty as a variable related to economic growth and inequality level. Thus, it supposes that economic growth reflects in an increase in mean consumption which is estimated using the survey data. There is a difference between the economic growth estimated using surveys and the one at macroeconomic level relative to national accounts. Hence, the use of the first presupposes the following hypothesis: GDP growth turns into an increase in mean consumption. The Kakwani's approach (1993) quantifies the poverty elasticity in relation to the mean consumption expenditure and inequality. Therefore, poverty change depends on changes in the mean consumption and Gini's index. Assuming that a poverty index is a function of three elements: (i) poverty line (Z), (ii) mean consumption and finally (iii) consumption inequality captured by the Lorenz curve characterized by K parameters m_1, m_2, \dots, m_K , Kakwani (1993) shows that, for a given poverty line, the poverty variation is the sum of two effects: a pure growth effect and an inequality effect.

To specify these two effects, he suggests taking into account the FGT poverty indices for $\alpha = 0, 1$ and 2 . When the parameter of poverty aversion (α) is different from 0, the elasticity of poverty with respect to consumption ($\eta_{p\alpha}$) and Gini ($\varepsilon_{p\alpha}$) may be calculated directly using the following equations:

$$\eta_{P\alpha} = -\alpha \frac{P_{\alpha-1} - P_{\alpha}}{P_{\alpha}} \quad \forall \alpha = 1,2$$

$$\varepsilon_{P\alpha} = \eta_{P\alpha} + \frac{\alpha \mu P_{\alpha-1}}{z P_{\alpha}}$$

It should be noted that these results are obtained by considering that the poverty variation is the sum of two inverse effects (negative growth effect when the inequality remain unchanged and positive growth effect when the mean consumption is invariant). When the parameter α is equal to zero these two expressions cannot be used, Kakwani (1993) shows that for $\alpha = 0$, η_{P0} is characterized by:

$$\eta_{P0} = -z \frac{f(z)}{H}$$

where H is the proportion of households below the poverty line. Finally, to quantify the elasticity of poverty with respect to the Gini index, Kakwani (1993) suggests a shift in the Lorenz curve as a function of a parameter β equal to the proportional change of the Gini index¹. Knowing that a change in inequality leads to a change in poverty level and supposing that the mean consumption remains constant, the shift of the Lorenz curve can be interpreted as a change in poverty line Z to Z^* ². It follows that when $\alpha = 0$ it is possible to know the elasticity of poverty with respect to Gini index comparing the incidence of poverty in both cases. When the poverty is affected by both change in mean consumption and consumption inequality, it is possible to identify a marginal proportional rate of substitution (Kakwani, 1993)

$$MPRS = \frac{\partial \mu}{\partial G} \frac{G}{\mu} = - \frac{\eta_{P\alpha}}{\varepsilon_{P\alpha}}$$

This ratio gives information on the increase of mean consumption to stop or to offset an increase of Gini coefficient in order to avoid further increase in poverty level.

¹ When the Gini index increases by 1%, $\beta = 0.01$

² According to Kakwani (1993), the new poverty line is determined using the following relation: $Z^* = \frac{z+\beta\mu}{1+\beta}$

Table 2. Elasticity of poverty and Marginal Proportionate Rate of Substitution (MPRS)

Year	Elasticity of Poverty / Mean Consumption expenditure				Poverty Elasticity of Poverty/Gini Index				MPRS			
	North	Centre	South	National	North	Centre	South	National	North	Centre	South	National
Incidence of poverty												
2007	-2.07	-1.74	-2.41	-2.08	2.63	2.34	2.53	2.52	1.27	1.34	1.05	1.21
2016	-1.90	-1.94	-2.52	-2.12	1.98	1.77	1.87	1.89	1.04	0.91	0.74	0.89
Intensity of poverty												
2007	-2.30	-1.84	-3.11	-2.44	5.04	4.22	6.18	5.17	2.19	2.29	1.99	2.12
2016	-1.96	-2.43	-3.13	-2.54	3.64	3.90	4.82	4.15	1.86	1.61	1.54	1.63
Severity of Poverty												
2007	-2.29	-2.03	-3.55	-2.66	7.05	6.02	9.69	7.65	3.08	2.97	2.73	2.88
2016	-1.95	-2.56	-3.39	-2.68	5.34	5.42	7.69	6.16	2.74	2.12	2.27	2.30

Source: our calculation based on HBS 2007-2016

Table 2 shows that between 2007 and 2016, the sensitivity of poverty to economic growth increased in the central and southern region of the country, while it experienced a reduction in absolute terms equal to 0.20 in the northern region. Sensitivity becomes more marked if other poverty dimensions are considered. Moving on to the sensitivity of the severity of poverty, we find that it has also increased in the central region, whereas in the other two macro-areas the reactivity of poverty to economic growth has decreased. In other words, when the inequality of consumption distribution is neutral, the economic growth has a strong impact on the extremely poor, especially in the southern prefectures that have experienced higher values of poverty elasticity than in the other regions. Thus, an increase in mean consumption of 1% will reduce poverty in all its dimensions in the southern prefectures more than in all the others. Therefore, *ceteris paribus*, a higher economic growth could be reducing poverty in the northern and central prefectures rather than in the south area.

Going back to the sensitivity of poverty with respect to economic growth among the poorest individuals, the elasticity of poverty increases. This means that the economic growth could have a greater impact on the extremely poor population than on the middle classes.

Finally, the last part of the table shows the marginal proportional rate of substitution (MPRS). This ratio reveals how much the growth effect should increase to offset the inequality effect to avoid an increase in poverty level. MPRS records high values when

we focus on the extremely poor population. It follows that the compensatory effect of the economic growth is crucial to curb any worsening of the poverty level in terms of intensity and severity attributable to an increase in inequality level. To sum up, these results highlight that the poverty elasticity is strongly sensitive to the economic growth and how it could control the negative effect due to an increase in inequality level.

V. PROSPECTS OF POVERTY REDUCTION

The elasticity coefficients between economic growth and poverty shown in the previous section highlight that even a small increase in mean consumption could have a significant effect on poverty change in all its dimensions when the growth does not cause an increase in inequality level. On the contrary, when the economic growth is accompanied by an increase in inequality, there could be an increase in poverty level. Obviously, this result is closely related to the inequality level deriving from the increase in consumption. To investigate this relationship, we perform two simulations that account for two scenarios of economic growth. In the first simulation the assumption is that economic growth is neutral in terms of inequality. Conversely, in the second one the economic growth is not neutral; in fact, it causes an increase of 1% in inequality level, the latter being measured by means of the Gini coefficient.

Each simulation includes three scenarios: a "low scenario" with a growth in the consumption expenditure per capita between 1.0% and 1.5%; a "medium scenario" in which growth varies between 2.0% and 2.5%, and finally, a "high scenario" characterized by a growth variation between 3.0% and 3.5%. This analysis allows to set poverty reduction targets and simulate the impact of different policies on poverty level. Table 3 shows the results of simulations.

Table 3. Prospects of economic growth on poverty change

	Growth in consumption expenditure (% per year)	Incidence of Poverty	Intensity of Poverty	Severity of Poverty
Hypothesis: neutral redistributive economic growth				
Low Growth Scenario	1	-2,12	-2,54	-2,68
	1,5	-3,18	-3,81	-4,02
Intermediate Growth Scenario	2	-4,24	-5,8	-5,36
	2,5	-5,30	-6,35	-6,7
High Growth Scenario	3	-6,36	-7,62	-8,04

	Growth in consumption expenditure (% per year)	Incidence of Poverty	Intensity of Poverty	Severity of Poverty
	3,5	-7,36	-8,89	-9,38
Hypothesis: no neutral redistributive economic growth				
Low Growth Scenario	1	-0,23	1,61	3,48
	1,5	-1,29	0,34	2,14
Intermediate Growth Scenario	2	-2,35	-1,65	0,8
	2,5	-3,41	-2,2	-0,54
High Growth Scenario	3	-4,47	-3,47	-1,88
	3,5	-5,47	-4,74	-3,22

Source: our calculation based on HBS 2007-2016

First of all, an economic growth without an increase in inequality could reduce the poverty in all its dimensions. Looking at the first growth scenario and assuming an economic growth rate of 1%, the poverty rate would be reduced at national level to an annual rate of 2.12%. Compared to the intensity of poverty, this proportion is 2.5%. Finally, even the reduction of the severity of poverty is about 2.70%.

The intermediate growth scenario shows (2.5%) a significant reduction in all three poverty dimensions. Those who benefit most from such economic growth are the households that lie in the left tail of the distribution of consumption. Even the high scenario has very positive values. Indeed, if the annual growth rate of per capita consumption in Albania were 3.5%, the incidence of poverty would be reduced at national level to an annual rate of 7.36%.

When we remove the hypothesis of the first simulation, the prospects of poverty reduction are less encouraging. Indeed, if we consider the low growth scenario (1%) with non-neutral growth, the incidence of poverty would experience a slight reduction of 0.23%.

Looking at the other dimension of poverty, the results that the results are by no means encouraging, in fact, an increase in inequality of 1% slows down the positive effects of economic growth on poverty reduction. The inequality has negative effects on poverty reduction when the growth rate is equal to 2.5%.

These two simulations show that an increase in the average level of consumption does not necessarily reduce poverty. A weak economic growth could have a positive impact on poverty reduction if the inequality level does not change. On the contrary, if the economic growth is accompanied by an increase in inequality, poverty in all its dimensions can worsen. In Albania, consumption growth per capita could reduce

poverty if it had values that were twice those related to inequality.

VI. DYNAMIC OF POVERTY CHANGES IN ALBANIA

The analysis performed in the previous section does not take into account the interactions between poverty, economic growth and inequality. We employ dynamic analysis to examine these interactions. Thanks to the dynamic approach, we neutralize the effect of inflation and we use one poverty line (for the two years) estimated by making reference to 2007 prices. Indeed, to decompose poverty change in Albania, we use a poverty line. The dynamic procedure proposed by Datt and Ravallion (1992) allows to evaluate the impact of economic growth and consumption expenditure decomposing the poverty change in relation to two time periods. According to this methodology, a change in poverty between t and $t+1$ can then be decomposed as follows:

$$P_{t+1} - P_t = G(t, t + 1, r) + D(t, t + 1, r) + R(t, t + 1, r)$$

where

$$G(t, t + 1, r) = P\left(\frac{Z}{\mu_{t+1}}, L_r\right) - P\left(\frac{Z}{\mu_t}, L_r\right)$$

$$D(t, t + 1, r) = P\left(\frac{Z}{\mu_r}, L_{t+1}\right) - P\left(\frac{Z}{\mu_r}, L_t\right)$$

$$\begin{aligned} R(t, t + 1, r) &= G(t, t + 1, t + 1) - G(t, t + 1, t) \\ &= D(t, t + 1, t + 1) - D(t, t + 1, t) \end{aligned}$$

Thus, the poverty variation is defined as the sum of three components: (1) the growth component which evaluates the poverty change achieved if the Lorenz curve remains unchanged, (2) the redistributive component reflects the poverty change resulting from the change of the Lorenz curve if the mean income (or mean consumer spending) does not change; and finally (3) the residual component that defines the interaction between the growth and redistributive effects. The residual term has some drawbacks: (i) it can take on a high value so as to be higher than the value of the distribution effect; (ii) it is not easy to interpret the value that it takes since changes in poverty depend on a change in consumption expenditure and inequality (Kakwani, 1997) and (iii) it considers the initial and final periods asymmetrically (Boccanfuso and Kabore, 2004). The axiomatic

approach proposed by Kakwani (1997) overcomes these limitations, it removes the residual term and considers symmetrically the initial and final periods. This approach is a particular case of Shapley's decomposition (1957) then proposed by Shorrocks (1999). According to Shorrocks (1999), the change in poverty depends on the impact of growth and redistribution. This methodology identifies the growth and redistribution effects as follows:

$$\hat{G}(t, t + 1) = \frac{1}{2} [P(z, \mu_{t+1}, L_t) - (z, \mu_t, L_t) + P(z, \mu_{t+1}, L_{t+1}) - (z, \mu_t, L_{t+1})]$$

$$\hat{D}(t, t + 1) = \frac{1}{2} [P(z, \mu_t, L_{t+1}) - (z, \mu_t, L_t) + P(z, \mu_{t+1}, L_{t+1}) - (z, \mu_{t+1}, L_t)]$$

Therefore, the total change in poverty is:

$$P_{t+1} - P_t = \hat{G}(t, t + 1) + \hat{D}(t, t + 1)$$

$\hat{G}(t, t + 1)$ represents the growth factor and it is equal to the average of two components: the poverty change if the inequality is fixed and is equal to that of the initial period, and the poverty variation if the inequality is fixed and is equal to that of the final period and $\hat{D}(t, t + 1)$ is the inequality factor, it is the average of two elements: the poverty change if the average income is fixed and equal to that of the initial period and the poverty change if the average income is fixed and equal to that of the final period. This decomposition does not include the residual term; it provides an exact decomposition of the poverty change that is equal to the sum of the contribution of growth and inequality. Table 4 shows the effects of economic growth and inequality on poverty change over the period considered. The results allow to observe the simultaneous interaction of growth and inequality on poverty change.

Table 4. Poverty change decomposition

Region	Poverty Change	Growth Effect		Inequality Effect		Residual	
		Datt & Ravallion	Shorrocks	Datt & Ravallion	Shorrocks	Datt & Ravallion	Shorrocks
Incidence of Poverty							
North	1,93	5,44	5,52	-3,67	-3,59	0,18	-

Region	Poverty Change	Growth Effect		Inequality Effect		Residual	
		Datt & Ravallion	Shorrocks	Datt & Ravallion	Shorrocks	Datt & Ravallion	Shorrocks
				Intensity of Poverty			
North	0,59	1,74	1,57	-0,79	-0,97	-0,35	
				Severity of Poverty			
North	0,32	0,78	0,70	-0,30	-0,38	-0,16	
				Incidence of Poverty			
Centre	10,21	8,10	8,32	1,66	1,88	0,46	
				Intensity of Poverty			
Centre	2,78	2,36	2,55	0,03	0,22	0,38	
				Severity of Poverty			
Centre	1,09	1,06	1,12	-0,08	-0,02	0,11	
				Incidence of Poverty			
South	9,88	9,66	10,84	-2,14	-0,96	2,35	
				Intensity of Poverty			
South	2,93	3,58	3,52	-0,52	-0,59	-0,13	
				Severity of Poverty			
South	1,39	1,79	1,72	-0,26	-0,33	-0,13	
				Incidence of Poverty			
National	6,05	6,61	6,99	-1,32	-0,94	0,77	
				Intensity of Poverty			
National	1,57	2,25	2,21	-0,62	-0,65	-0,07	
				Severity of Poverty			
National	0,66	1,08	1,03	-0,33	-0,37	-0,09	

Source: our calculation based on HBS data

At the national level, the increase in the incidence of poverty depends mainly on economic growth. In fact, for the period considered, if the Lorenz curve had remained unchanged, poverty would have increased by 6.61% and 6.99%, according to the methodology of Datt and Ravallion and Shorrocks, respectively. Since the observed variation has lower values, this difference is attributable to the other component that stopped the increase in the number of the poor. The findings obtained using the Shorrocks's approach show that 115% increase in poverty is due to a reduction in average consumption and the remaining part is attributable to the improvement in the distribution of wealth. These results are also confirmed when the poor population is weighted. In fact, the proportions are 140% and 156% for the intensity and severity poverty, respectively. These indices show that the increase of poor households is due to the lack of growth in average consumption. On the contrary, the improvement in national distribution has reduced the gap between average consumption and poverty line. Examining the results at the disaggregated level, we find that northern and southern regions have the same trend experienced at national level. In the two prefectures of the Centre, the growth effect and the inequality effect contribute jointly

to the increase in the number of poor families. The analysis of the dynamic poverty decomposition shows how economic growth and inequality impact on the poverty level in a given country is also important for policymakers in order to understand the policy decisions to make.

VII. FINAL REMARKS

Although Albania has experienced positive per capita GDP growth rates, it is still a country with a significant development gap compared to the European Union, which it wishes to join, and a high level of unemployment and poverty. Between 2007 and 2016, i.e. the years covered by our analysis, there was indeed an increase in all three dimensions of poverty. The increase of poverty is due to the lack of growth in consumer spending and not to an increase in inequality. In other words, the lack of growth in consumer spending has contributed to increasing the number of poor households. On the contrary, the improvement in national distribution has caused a reduction in the difference between consumer spending and poverty line. Looking at the territorial dimension of poverty, we find that the southern regions have the highest portion of households below the poverty line, which is equal to 22.29% and 29.15% in 2007 and 2016 respectively. In 2016, the prefectures with the lowest percentage of poor population (17.70%) are those in the North. Between 2007 and 2016, the prefectures of Elbasan and Tirana have recorded an increase of approximately 10% in the number of the poor families. The results of the sensitivity of poverty with respect to economic growth show that when the growth does not cause an increase in inequality level, even a small increase in mean consumption could have a significant effect on poverty change in all its dimensions. On the contrary, when the economic growth is accompanied by an increase in inequality, there could be an increase in poverty level. This result is closely related to the inequality level deriving from the increase in consumption. The findings of the two economic growth simulations show that an economic growth without an increase in inequality could reduce poverty in all its dimensions. In particular, if the annual growth rate of per capita consumption in Albania were 3.5%, the incidence of poverty would be reduced at national level to an annual rate of 7.36%. When we remove the hypothesis of the first simulation, the prospects of poverty reduction are less encouraging. The inequality has negative effects on poverty reduction when the growth rate is equal to 2.5%. Moving on to the results of the two dynamic methodologies, we

find that the cause of the increase in the level of poverty depends on the reduction in the value of consumption expenditure, and the improvement in the distribution of expenditure consumption among Albanian households has prevented further increases in poverty level. The results obtained in the prefectures of central Albania deserve attention. In this area, the effects of growth and inequality go in the same direction: these two effects have jointly indeed contributed to the increase in the number of poor families. The use of these two methods of poverty decomposition allows to investigate to what extent the two effects have an influence on the variation in poverty to understand what Albania needs to accelerate progress in poverty reduction. It is clear that to reduce poverty a key role is played by a sustainable long run economic growth that benefits both the poor and the non poor. However, the positive effects of economic growth for poverty reduction could be strengthened if they were accompanied by policies aimed to reduce the inequality level. A fairer distribution can be achieved if and only if policy makers decide to reform the taxation system, to implement new social policies targeted to the most vulnerable segments of population and finally facilitating access for the poorest to existing social programs.

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APPENDIX

Territorial distribution of Poverty in Albania

