

The Effect of Economic Growth under Nominal GDP in Relation to Poverty

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In this paper the focus will be on Macroeconomic analysis regarding economic growth under GDP, in relation to the most important macroeconomic parameter, poverty. The paper will include the analysis of Gross Domestic Product, as an important measure of an economic overview within a country or a state. Gross Domestic Product (GDP) is a more impeccable method for the analysis of all transactions that are performed within a country, in order to display an economic analysis for a country. The key point of this paper is the economic growth under nominal GDP, in relation to the most important macroeconomic parameter, poverty. This paper aims to find out what the influence of the increase of the nominal GDP in relation to poverty in Kosovo was. The paper includes the analysis of the scatter plot graphs of nominal GDP in relation to poverty, and also the analysis of descriptive statistic. The method of simple linear regression will be used when analysing the relation of nominal GDP compared to poverty in Kosovo.

Keywords: Economic growth, nominal GDP, Poverty

JEL Classifications: O₄, E₁, E₀

1. Introduction

According to the reports of World Bank and International Monetary Fund, since 1999 Kosovo is in the trend of economic growth. During the last years, Kosovo had the biggest economic growth in region, for as long as the regional economies are affected by financial crisis of 2008, and later on from Eurozone debt crisis, which has touched especially some of the main commercial and investing partners in Kosovo. While Croatia and Serbia faced recession, Macedonia and Albania had a

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small economic growth, whereas in 2012 Kosovo had an economic growth of 3.9% of Gross Domestic Product (Pula, 2013). And, since the beginning of the financial crisis that gripped Eurozone during 2008-2012, the average economic growth of Kosovo was 4.5% (World Bank, 2012). The economic growth in 2015 was 3.9%; in 2016 was 3.6% - the highest growth rate in Western Balkans countries. Meanwhile, predictions for 2017 are that Kosovo will have an economic growth of 3.9%, whereas in 2018 of 3.7% (World Bank, 2016). But, despite the fact that Kosovo has the highest economic growth rate in Western Balkans, it is still facing the problem of unemployment and poverty.

The labour market in Kosovo is characterized with an increase in the unemployment rate, as new jobs have not been created in order to reduce unemployment and poverty in this country; this came due to the high market pressure of the labour force, regardless the fact that the country has an economic growth. This economic growth is stimulated by donors' aid, remittances and so on, which recently have significantly declined. That is why we fear that Kosovo has no foundation for a sustainable economic strategy (Baleci & Heeman, 2013). It is estimated that unemployment rate is 45% (Bertelsmann, 2012). Nowadays, Kosovo remains one of the poorest countries in the region, with an unemployment rate of 45%, and with the rate of extreme poverty of 15% (Baleci & Heeman, 2013).

Due to the reason of unemployment and poverty in the country, Kosovans are necessarily obliged to accept any job offer, despite poor working conditions. The Kosovan youth are disappointed when it comes to finding a job. This has a negative effect in the future success of Kosovan youth (Baleci & Heeman, 2013). A very small percentage of young people of Kosovo are engaged in self-employment (World Bank, 2010).

At present, it can be seen that emigration keeps the youth away from their land, their social life, family, environment and friends. Illegal emigration remains a challenge for the country. Emigration of Kosovan youth is decreasing the risk of unemployment in Kosovo, since they earn the living for themselves and their families living in Kosovo. Emigration has played a crucial role in the economy of Kosovo. Most probably this will be the case even for the future (Vathi & Black, 2007; Baleci & Heeman, 2013). Kosovo, within the Western Balkan countries, is the country with the highest emigration in Europe. The emigration is encouraged mainly by economic situation. Around 43% of the emigrants have left Kosovo because of economic reasons. Their main destination was Germany and Switzerland (World Bank, 2011).

So, despite continuous economic growth, its effect on unemployment reduction and poverty is little. Therefore, the following analysis will elaborate the relation between economic growths under nominal GDP, in relation to poverty in Kosovo.

2. Literature Review

Since the end of the 1980s, macroeconomists' attention has been shifted to Governmental Policies on long-term rate of economic growth. This change reflected partially on recognition that the difference between prosperity and poverty in a country depends on how fast the economy of that country grows in different time periods. Except fiscal and monetary policies which play an essential role in economic development, there are other factors in addition that characterize a state; that has to do with the character of a nation, under Basic Politics, Law and Economic Institutions (Barro, 1999). Economic policies can affect some aspects of economy through investments in human capital, legal infrastructure, in the improvement of legal and political stability and so forth. The stability of macroeconomic environment can be in favour of the increase of economic development of a country, by being focused on inflation, fiscal policy, budget deficit and tax load. These parameters influence the growth and development of that country. Being open towards trade with other countries, has been mentioned widely in literature of economic growth, as a determiner of the performance increase of that country. There are sane theoretical reasons to believe that there exists a strong and positive connection between opening the trade doors to other countries, influencing growth and economic development. This can be done in several ways such as: using comparative advantage, transfer of technology and knowledge-sharing (Patrakos et al., 2007).

The rapid economic growth has a negative effect on the poor people, because they will be bypassed by the structural changes of modern and technical-technologic growth. However, the middle class has generally the highest rates of savings. Except financial savings, the poor have the tendency to spend their additional income to buy better food, to improve the education of their children, their housing conditions and so on. This category of the poor represents the investment in consumption. The poor have more difficulties to get credit for financing their children's education, and therefore they are forced to leave their children unschooled. The low income and the life quality of the poor who are unhealthy, and also have poor food, could decrease their economic productivity. In this way there will be a direct or indirect effect to a slower economic growth. The strategies of many governments are directed towards increasing the incomes and improving the life quality of the poor. This would directly contribute to their welfare, but also to the economy incomes of that country in general (Todaro & Smith, 2012).

The relationship between demographic tendencies and economic growth has attracted a lot of attention especially in the last years. It appears that also some other factors played a key role in economic growth such as: population growth, density of the population, age and so on (Kormendi & Meguire, 1985; Dowrick, 1994; Kelley & Schmidt, 1995; Barro, 1997; Bloom & Williamson, 1998; Kelley & Schimdt, 2000).

A range of theories and competing attitudes in the study of economic development have been reviewed, representing the method of strong and weak points. Therefore sometimes derive contradictory values from state to state. In this regard, the practice of China can be considered. The empirical results show that Chinese economy has undergone a structural change, so to change and identify the main economic parameters involved in this process of economic growth (Todaro & Smith, 2012). The results of the accumulation of the capital are when in the majority of the cases the current incomes are saved and invested, in order to increase the production in the future. The investment in human resources can improve the quality of the living standard of that country, and could have a more positive effect in GDP (Todaro & Smith, 2012). The main intention of the economic policies is to fix inequalities inside and outside a state, within International World Policies (Patrakos et al., 2007).

Kosovo has become a state in the last years, so the consumption for different products and for capital investments in the recent years, was rising. But, nowadays Kosovo remains one of the poorest countries in region, whereas Kosovans aged between 15-24 years old, are the most affected ones from unemployment (Anketa e Forcave të Punës, 2009). The fact that Kosovo has the youngest population in Europe and considering the number of the youngsters who finish secondary school every year and enter the labour market, this will only continue to put pressure on the labour market and in social services in Kosovo (Baleci & Heeman, 2013). Most of the firms do not have any income increase, but instead sometimes there is a decrease; the demand for new workforce has not changed for the better, there are also a considerable number of the firms that operate informally and in this way negatively affect the labour productivity of other businesses (World Bank, 2010). EU countries keep representing the main source of Foreign Direct Investments (FDI) in Kosovo (Central Bank of the Republic of Kosovo) (BQK), 2012). EULEX's efforts to enforce rule of law, to fight corruption and organized crime, remains like a battle to be fought, in order to help Kosovo have or create a better and more credible environment for investments and economic development (Baleci & Heeman, 2013).

Economic growth cannot provide economic development and improvement of social welfare, because this increase is of a low percentage in order to be able to influence the poverty alleviation (Evropa e lirë, 2016). One third of the population

of Kosovo lives in the shadow of poverty with 1.72 Euro per day (UNDP, 2016). So, taking into account these data, it can be said that the economic growth has not influenced that much for the poverty to be alleviated.

3. Methodology

The main aim of this study is to get information on current development of economic growth in Kosovo, by presenting different analysis regarding this process. This study aims to analyse and study deeper the current situation in the country, relating the process of economic growth in Kosovo, under nominal GDP in relation to the most important macroeconomic parameter in the country, poverty.

In this paper the analysis of secondary data will be conducted, taken from relevant institutions that deal with the issue of economic growth under nominal GDP in relation to poverty. This analysis will be helpful to reach a perception of socio-economic analysis in the country, and to be able to identify analysing parameters about nominal GDP compared to poverty, based on the data of Kosovo Agency of Statistics. Regarding nominal GDP, we have data from 2004-2014, whereas for real GDP we have data only for the time period 2006-2014. Given that for nominal GDP we have data for two years more, compared to the real GDP, the paper will only include nominal GDP.

The paper includes scatter plot graph analysis between nominal GDP in relation to poverty. Then, the analysis of descriptive statistics will be included, and in the end the method of simple linear regression will be used comparing poverty and nominal GDP, as a more suitable and sophisticated model for such analyses. The formula of this analysis will be:

$$P = \beta_0 + \beta_1 \text{GDP}_n + \epsilon \quad (1)$$

These symbols represent: P – Poverty, GDP n - Gross Domestic Product (nominal).

In this paper, the data of 2004-2014 will be used, as there are no records before 2004; this due to the fact that Kosovo was occupied until 1999. Therefore, these data for the 11 years period are sufficient for such analysis in order to reach a conclusion. For an analysis of this kind, will be used the most impeccable program: STATA.

4. The increase of nominal GDP in relation to poverty

We have economic growth trend when in a long run there is continuous production. The measure of the trend requires series of macroeconomic data for a long time period, in order to identify different phases of the cycle and to extract average range of growth year after year. Economic growth trends of the most developed countries in the world, have resulted in theoretical and also in empirical aspect, that the economic growth under GDP has affected the improvement of citizens' welfare for that country. This had an impact on poverty alleviation through increase in investments and employment. Thus, the data of general poverty in Kosovo and the data of nominal GDP will be presented in a chart below.

The data of nominal GDP and poverty (2004-2014)

Table 1

Years	Nominal GDP (million)	Percentage of nominal GDP %	General poverty %
2004	2911.8	-	43.5 %
2005	3002.8	3.12 %	45.1 %
2006	3120.4	3.91 %	45.4 %
2007	3460.8	10.90 %	42 %
2008	3882.7	12.19 %	38 %
2009	4069.6	4.81 %	34.5 %
2010	4401.9	8.16 %	29.2 %
2011	4814.6	9.37 %	29.7 %
2012	5058.7	5.06 %	29.7 %
2013	5326.6	5.29 %	29.7 %
2014	5567.5	4.52 %	29.7 %

Source: Author's calculation (data by the Statistical Office of Kosovo, 2016)

The highest percentage of nominal GDP for these years was in 2008, with an increase of 12.19%. One of the factors that affected this highest increase of nominal

GDP in the recent years is after Kosovo was self-declared as an independent country. After that, many new ministries were established, new inventory was bought for them, a great number of people were employed in these ministries, the construction of schools, universities and roads began. Another factor that had an effect in the increase of nominal GDP is the increment of the loans taken by the Government from international institutions, to be used for capital investments. So, after the independence of Kosovo, all of these factors have positively influenced economic growth throughout these years. The lowest increment of nominal GDP was in 2005, with a decrease of 3.12%. This percentage is the lowest in these years, due to the changes in elections, in the frame of government formation after elections. Moreover, Kosovo was under international administration.

From this chart (Chart 1) it can be seen that every year, in average the poverty range has declined, but these changes are small. The year with the highest poverty rate during these years, is 2006 where the general poverty was 45.4%; whereas the lowest general poverty rate in these years is in 2010, where the unemployment rate was 29.2%.

In the sequence of this paper, the results and the analysis of the data from chart 1 will be presented by analysing them through the means of scatter diagram, descriptive statistics and through the analysis of simple linear regression.

4.1 Descriptive statistics

Before analysing the model of simple linear regression under poverty in relation to nominal GDP, the descriptive statistics of these two variables will be presented.

The descriptive statistic of general poverty and nominal GDP

Table 2

Variable	Obs	Mean	Std. Dev.	Min	Max
p	11	36.04545	6.889465	29.2	45.4
gdp	11	4147.036	958.4714	2911.8	5567.5

Source: Author's calculation

In this chart (chart 2) two variables are included: poverty and nominal GDP.

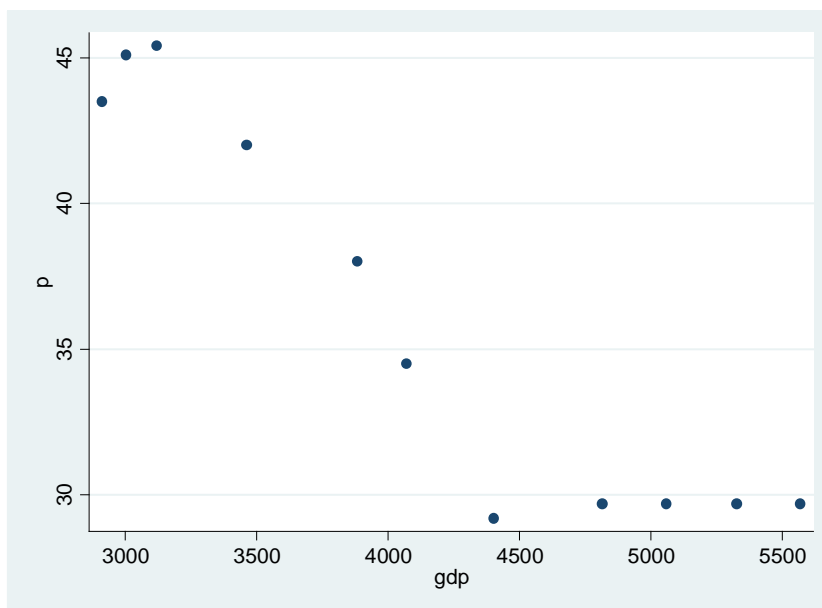
The number of observations is 11, where general poverty in average is 36%, with standard deviation of 6%, whereas the minimum value of general poverty is 29%, and the maximum is 45%.

Nominal GDP with average of the value is 4 147 million €, with standard deviation 958 million €, whereas the minimum of the value of nominal GDP is 2 911 million €, with maximum being 5 567 million €.

In the sequence, we will present graphically through scatter plot graph, the relation between these two variables.

Graphic 1

Scatter plot graph between general poverty in relation to nominal GDP



Source: Author's calculation

In this graphic (graphic 1) it can be noticed that these two variables have a negative relationship between them.

4.2 The analysis of linear regression

For this analysis, the method of simple linear regression model between two variables will be used. One variable will be dependent, whereas the other independent. As a dependent variable in this analysis will be general poverty in

Kosovo (P), and as independent variable will be the nominal GDP. GDP is a measurement parameter of economic growth within a country or a state. The model of simple linear equation is:

$$y = \beta_0 + \beta_1 x + \mathcal{E} \quad (2)$$

Therefore, by applying this formula one can also use simple linear regression model, by using the dependent variable – poverty (P) and the independent one – nominal GDP as a measure of economic growth. The model will be:

$$P = \beta_0 + B1 \text{ GDP}_n + \mathcal{E} \quad (3)$$

These symbols represent: P – Poverty; GDP-n – nominal GDP

In this formula are included parameters β_0 and β_1 , as parameters of the model of simple linear regression, whereas \mathcal{E} represents error terms.

The results of simple linear regression analysis can be seen in the following chart. In this chart two variables are included, one of them is dependent and the other is independent.

The results of linear regression

Table 3

Source	SS	df	MS	Number of obs = 11		
Model	417.346551	1	417.346551	F(1, 9) =	65.55	
Residual	57.300674	9	6.36674155	Prob > F	= 0.0000	
Total	474.647224	10	47.4647224	R-squared	= 0.8793	
				Adj R-squared	= 0.8659	
				Root MSE	= 2.5232	

p	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gdp	-.0067401	.0008325	-8.10	0.000	-.0086234	-.0048569
_cons	63.99708	3.535202	18.10	0.000	55.9999	71.99427

Source: Author's calculation

In this chart (chart 3) it can be seen that these two variables have a negative relationship, meaning general poverty as a dependent variable compared to nominal GDP as an independent variable. Within its parameters, GDP measures the economic growth of a country or state.

In the frame of this analysis and this model of simple linear regression, the following form is obtained:

$$P = 63 + (- 0.0067) \quad (4)$$

From this result, the ordinate in origin (y – intercept) of the assessed regression line is 63, whereas GDP is - 0.0067. From this derives that these two variables have a negative relationship between them.

In that chart it can also be seen that between these two variables the level of significance is 0.000, which is lesser than the test $F = 0.05$. The model suggests that if nominal GDP increases for 1%, then it will have a negative effect in general poverty alleviation in average of 0.67%.

5. Conclusion and discussion

In this paper we have analysed the perceptions in regard with economic conditions and socio-economic welfare compared to economic growth under nominal GDP in Kosovo. From the analysis of the data, interesting observations and interpretations resulted, concerning the relationship between the increase of the nominal GDP in relation to general poverty range.

The increment of nominal GDP has had a very low influence in general poverty reduction, as the unemployed people are poor, and the influence of this economical growth has not affected satisfactorily their living standard, taking into consideration the difficulties of finding a job in Kosovo. That shows better the proportion of economic growth and unemployment and poverty in Kosovo. The life of citizens of Kosovo is continuously being hampered, and as their only choice they see emigration in different countries of Europe, taking into account the abovementioned numerical data. Kosovo had an economic growth in the last years, but unemployment and general poverty had a small decrease. This growth is not contributing in welfare improvement of the citizens, taking into account that emigration is increasing; this growth is not improving the living standard as still there are difficulties in employment; and is not reducing the extreme poverty in the country, because citizens keep trying to emigrate in different countries of Europe, so to they have a better life. The recent reports of the world media such as: BBS, The New York Times, The Guardian, imply that the majority of the youth want to move in different European countries. The latest case is that many people from Kosovo are applying for asylum in European countries, and Kosovo outperforms

other countries of Western Balkans when it comes to the highest number of asylum seekers.

In this paper we have elaborated and analysed the simple linear regression, and nominal GDP compared to poverty. The empirical findings of these two variables are meaningful and have a negative effect. The level of significance is 0.000, which is less than level of the test $F = 0.05$ or 0.025 , and the model suggests that if the nominal GDP is increased for 1%, then it will have a negative effect on unemployment reduction in average of 0.67%. Therefore, we conclude that the economic growth under nominal GDP has influenced in general poverty alleviation, based on the processed results and the analysis conducted through simple linear regression.

But, again the general poverty in Kosovo is very high and is one of the biggest macroeconomic challenges in the country. Based on these results and analyses, it can be concluded that the components with the biggest influence in general poverty alleviation are foreign investments and subventions for agriculture sector in the country.

It could be concluded that the Government should make a radical change in the process of the approach towards economic growth, based on rule of law. This would affect the increment of foreign investments in the country, indirectly helping and stimulating businesses that employ more employees, helping the agriculture business, by changing the approach of public investments. All these factors would influence unemployment reduction and this reduction would influence general poverty alleviation and the decrease of emigration.

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