

A Theoretical Statistical Measurement Model Analysis on Human Capital Economic Growth and Poverty in Bulgaria

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Abstract: The purpose of this paper is to examine the main issues which effect the economic growth and the poverty in Bulgaria in relation with rate of human capital growth.

The assumption that in the modern world poverty isn't a concept associated with the shortage of income is grounded. At its core the poverty is an expression of lack of opportunities for the person. The interest in it is completely understandable, because poverty is perceived as the most important social problem, in which all significant existential questions and challenges to the social sciences are focused virtually.

Keywords: Bulgaria, Human Capital, Growth, Poverty.

Jel codes: I32, O12,O15, L51, J24

1. INTRODUCTION

The history of the theoretical study and the empirical measurement of poverty can be traced back to ancient Greece. Understanding the nature of poverty and the reasons for its perseverance are related to the establishment of relationships, dependencies and influences with respect to material prosperity, the behavior of the individual and the state of society. This research approach will allow us not only to construct public policies leading to the reduction of poverty, but also the disclosure of the prospects for the necessary reforms (in their depth) in society. (Rusevaet.al. 2015)

The problems of the social inequalities and poverty are particularly complex, contradictory and specific in Bulgaria. What it is their specificity?

After 1989 (a period which can be characterized as a deep systematic crisis), a shift towards democracy and market economy was realized. We are faced with questions such as: (1) Why in practical higher levels of national income and household income, the poverty rate is higher? (2) Is it a real fact that of the level of poverty and the inequities is an inevitable consequence of transition to a market economy and the destruction of the socialist state? (3) Is it true the allegation that increasing the level of poverty is the result of errors related to resolving the political, macroeconomic and social issues that could be avoided if the subjective factor had taken other decisions? Or maybe there is a possibility that the serious problems of poverty and inequalities were inherent to 1989 year, but these problems have been skillfully camouflaged by virtue the requirements of the dominant ideology and the lack of data, institutions and a system of public policies necessary for the effective measurement and monitoring of the indicators and indices of poverty?

The basis of the answers to these questions is finding a solution to for empirical studies of poverty. Its essence consists in the development of a system of indicators and indices that allow the connections, dependencies and influences between the level of poverty and the degree of welfare to be analyzed. In our view, this can be a first step, because the question is not only to measure the poverty, but above all the consequences for the development of man to be determined.

Under development, we understand realization the planned in each individual abilities, talents and predispositions that in the conditions of insufficient freedom of choice can't occur.

A number of studies reveal sidedness of the approach that development is measured and assessed only on GDP, leaving a side of dimensions of human existence such as:

- The political and economic freedoms and opportunities;
- The level of social protection of individuals and the vulnerable social groups;
- Equal access to healthcare systems and education, etc.

The domestic banking crisis in 2014 caused disruption in financial intermediation, whereas, in total, fragile lending still participates to today's low-inflation environment. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

2. EMPIRICAL FINDINGS ON MACROECONOMIC ISSUES

• Wages and labor costs:

The labor market begun to progress gradually over 2014-2015.

Employment raised by a moderate 0.4% in 2014 and 2015, which, together with a reduction in the labor force, partly due to emigration, helped to decrease the unemployment rate from 13% in 2013 to almost 9% in 2015.

Nominal wage growth was influenced by negative inflation over the past few years, especially in 2015, even though there were continuous wage convergence pressures and lack of skills in some sectors.

(http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

Labor productivity growth was weak in 2013- 2014, as the decline in employment ended, but it picked up in 2015 with higher output development.

Nominal unit labor cost growth slowed down over the past two years, which mainly reflected the rapidly declining development of nominal compensation per employee.

Labor productivity development is estimated to stay moderate over 2016-2017, taking into account the continuing stabilization of the labor market and the deficiency of satisfactory new investment. (www.nsi.bg, 15/10/2016)

Based on Commission's report, ULC growth is estimated to pick up again in 2016 and 2017, in line with the evolution of nominal compensation per employee. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

In the second quarter of 2016 there were 3 033.4 thousand employed persons aged 15 years and over, of whom 1 608.3 thousand men and 1 425.1 thousand women. The share of employed persons in the total population aged 15 years and over was 49.5%, up by 0.8 percentage points compared to the second quarter of 2015. In employment were 54.6% of men and 44.8% of women in the age group concerned. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

In the second quarter of 2016 there were 265.6 thousand unemployed persons and the unemployment rate was 8.0%. In comparison with the second quarter of 2015 the number of unemployed persons went down by 65.3 thousand and the unemployment rate decreased by 1.9 percentage points. Of the total number of unemployed persons in the second quarter of 2016, 155.7 thousand (58.6%) were men and 109.9 thousand (41.4%) were women. The unemployment rate was 8.8% for men and 7.2% for women. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

In the second quarter of 2016 the total hourly labor cost (preliminary data) rose by 7.3% compared to the second quarter of 2015. The total hourly labor cost grew by 8.6% in industry, by 6.6% in services and by 6.7% in construction.

According to the NSI business inquiries in September 2016 25.0% of the industrial enterprises pointed out the labor shortage as a factor limiting their activity. (www.nsi.bg, 15/10/2016)

In June 2016 the average wage and salary was BGN 936 or 0.6% less compared to the previous month. Compared to June 2015 the increase was 7.8%.

- **Private consumption:**

In July 2016 the total consumer confidence indicator decreases by 0.6 percentage points compared to April which is due to the decreased confidence among the urban inhabitants. The level of the indicator for the rural population remains unchanged. The consumers' total assessment about the development of the economic situation in the country over the last 12 months is less negative in comparison with the previous inquiry as a result of which the balance indicator increases by 1.6 percentage points. However, in their expectations for the next 12 months certain pessimism is observed.

In July 2016 the working day adjusted turnover in 'Retail trade, except of motor vehicles and motorcycles' (preliminary data) increased by 2.2% in comparison with the same month of the previous year. In July 2016 compared to the same month of 2015 the turnover increased in the 'Retail sale of food, beverages and tobacco' by 7.3%, in the 'Dispensing chemist; retail sale of medical and orthopedic goods, cosmetic and toilet articles' by 6.1%, in the 'Retail sale of automotive fuel' by 3.5% and in the 'Retail sale of textiles, clothing, footwear and leather goods' by 2.8%. A decrease was registered in the 'Retail sale via mail order houses or via Internet' - 9.1%, in the 'Retail sale of computers, peripheral units and software; telecommunications equipment' - 8.0%, in the 'Retail sale of audio and video equipment; hardware, paints and glass; electrical household appliances' - 3.0% and in the 'Retail sale in non-specialized stores' - 1.7%. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

In the second quarter of 2016 for individual consumption were spent 67.7% of the GDP produced. According to seasonally adjusted data¹, the indicator increased by 3.2% compared to the respective quarter of 2015.

- **Prices:**

In August 2016 the harmonized index of consumer prices decreased by 1.1% compared to August 2015.

The highest decrease was registered in 'Transport' - by 7.1%. In first quarter of 2016 the house price index increased by 4.5% compared to same quarter of 2015. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

Producer Price Index on Domestic Market in August 2016 decreased by 2.7% compared to the same month of 2015. The domestic prices fell in the mining and quarrying industry by 2.1%, in the manufacturing by 2.0% and in the electricity, gas, steam and air conditioning supply by 4.1%. According to the conjuncture inquiry in September 2016 the managers' expectations are the selling prices in industry to remain unchanged over the next 3 months.

3. BULGARIA FULFILS THE CRITERION ON PRICE STABILITY

The average inflation rate in Bulgaria during the 12 months to April 2016 was -1.0%, well below the reference value of 0.7%. It is projected to remain well below the reference value in the months ahead. The annual HICP inflation rate in Bulgaria has been negative since summer 2013, with the downturn triggered by an unusually strong combination of disinflationary factors. Inflation reached a trough of -2.4% in January 2015 and then increase to -0.3% in May 2015, before falling back again. Core inflation was negative over most of the past two years, including in early 2016. Negative inflation has been sustained i.a. by weak domestic demand and falling import prices. In April 2016, annual HICP inflation stood at -2.5%. (www.nsi.bg, 15/10/2016)

Inflation is expected to rise gradually as the effect from the decline in commodity prices slowly tapers off, although it is set to remain negative throughout most of 2016. Accordingly, the Commission services' Spring 2016 Forecast projects annual average inflation at -0.7% in 2016 and 0.9% in 2017.

The low price level in Bulgaria (47% of the euro-area average in 2014) suggests significant potential for further price level convergence in the long term.

The 2016 budget was adopted by Parliament on 2 December 2015. It aims at achieving a general government deficit of 1.9% of GDP based on a number of measures both on the revenue and on the expenditure side. First, strengthening of tax compliance in light of exercising fiscal control and forced collection of arrears is expected to increase tax revenues by ¼% of GDP. Increase in excise duty on fuel and cigarettes would imply higher revenues of 0.2% of GDP, which could be partly off-set by the fuel voucher system provided in the agriculture sector. Higher revenues from the hike of road tolls

and the concession revenues related to the transport sector as well as the lower national co-financing related to the absorption of the EU funds are partly counterbalanced by the budgeted higher public investments from own resources.

(http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

According to the Commission services' Spring 2016 Forecast, the general government deficit is foreseen to be 2% of GDP. In 2017, the Commission forecasts the general government balance to improve and achieve a deficit of 1.6% of GDP in light of some revenue increasing measures and of the economic growth.

Taking into account the negative output gap estimated by 2017, the structural deficit is projected to be 1.4% of GDP. The public-debt-to-GDP ratio is forecast to increase from 27% in 2014 to around 29% by 2017.

The country aims at the gradual improvement of the general government balance from 1.9% of GDP in 2016 to 0.8% of GDP in 2017 and further to 0.2% of GDP in 2019. Also, it targets the achievement of the medium-term objective of a structural deficit of 1% of GDP in 2017. In 2017, compared with the Commission forecast of 1.6% of GDP, the targeted improvement of the deficit is ambitious and specification of further deficit decreasing measures are likely to be needed to be achieved. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

4. BULGARIA FULFILLS THE CRITERION ON PUBLIC FINANCES

Bulgaria is not the subject of a Council Decision on the existence of an excessive deficit. The general government deficit increased from 0.8% of GDP in 2013 to 5.4% in 2014, due mainly to financial sector support measures. The deficit-to-GDP ratio was 2.1% in 2015 and according to the Commission services' Spring 2016 Forecast, it is projected to decrease to 2.0% in 2016 and to 1.6% in 2017, under a no-policy-change assumption, supported by the economic recovery. The gross public debt ratio decreased to 26.7% of GDP in 2015 and it is projected to increase to 28.1% of GDP in 2016 and to 28.7% of GDP in 2017. Based on the Commission's assessment of the 2016 Convergence Program, Bulgaria is expected to broadly comply with the provisions of the Stability and Growth Pact. Nevertheless, further measures will be needed to ensure compliance in both 2016 and 2017. The Bulgarian fiscal framework has recently been strengthened by successive legislative steps, and the focus is now shifting towards implementation. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

Investment: In July 2016 the average capacity utilization in industry increased by 0.9 percentage points in comparison with April and it reached 73.3%.

According to seasonally adjusted data, the gross fixed capital formation in the second quarter of 2016 decreased in real terms by 4.4% compared to the same period of the previous year. The relative share of that indicator in GDP is 21.6%. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

External factors: Given the high openness of the Bulgarian economy, developments in import prices will have an important role in domestic price formulation.

Global energy and food prices are particularly relevant for inflation, given their relatively large share in the consumer basket and the high energy intensity of the Bulgarian economy. Import prices had a strong disinflationary result over the past three years, falling by nearly -3% per year. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

This reflects mainly the lower international oil price and the stronger nominal effective exchange rate of the lev. Import prices are expected to continue declining also in 2016. In particular, the decrease in the oil price is expected to pass through to lower energy-related inflation. It should be noted that Bulgaria depends on a single source of gas supply and negotiates gas prices bilaterally, occasionally diverging from global price trends. The nominal effective exchange rate of the lev (measured against a group of 36 trading partners) appreciated by about 4% from mid-2013 until early 2014, as some currencies of major trading partners depreciated against the euro (Turkish Lira, Russian Rouble, Romanian Leu). About half of this appreciation had been unwound by early 2016, but the stronger nominal effective exchange rate contributed to lower import prices over the assessment period. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

In the meantime, the weaker euro and the tightening domestic labor market conditions are expected to exert some upward price pressure. Accordingly, the Commission services' Spring 2016 Forecast projects HICP inflation to average -0.7% in 2016 and 0.9% in 2017. Risks to the inflation outlook appear broadly balanced, with the most significant risks related to global energy and food price developments, given their relatively large share in the Bulgarian consumer basket. Additional inflation risk factors are core inflation movements elsewhere in the EU and administered prices changes. The level of consumer prices in Bulgaria was at 47% of the euro area average in 2014. Over the long run, there is important dynamic for further price level convergence, in line with the expected catching-up of the Bulgarian economy (Bulgaria's income level was at about 44% of the euro area average in PPS terms in 2014). Medium-term inflation prospects will depend on wage and productivity developments, as well as on global commodity price trends. Tax policy is expected to have only a limited impact on inflation. (http://ec.europa.eu/economy_finance/publications/eeip/ip_026_en.htm, 15/10/2016.)

Additional factors have also been examined, including balance of payments developments and integration of markets. Bulgaria's external balance recorded a significant surplus in 2015. The improvements in the trade and capital account balances from 2013 to 2015 more than counterbalanced the deterioration in the secondary income account. The Bulgarian economy is well integrated with the euro area through trade and investment linkages. On the basis of selected indicators relating to the business environment, Bulgaria performs worse than most euro-area Member States. Bulgaria's financial sector is well integrated with the EU financial sector, in particular through a high level of foreign ownership in its banking system.

In the context of the Macroeconomic Imbalance Procedure, Bulgaria was subject to an in-depth review in 2016, which found that Bulgaria continues to experience excessive macroeconomic imbalances. The economy is characterized by remaining fragilities in the financial sector and high corporate indebtedness in a context of limited labor market adjustment. (http://ec.europa.eu/economy_finance/publications/eeip/ip026_en.htm, 15/10/2016.)

5. BREXIT CONSEQUENCES IN BULGARIAN ECONOMY

The most significant adverse effects are identified in foreign trade, but it will be mostly indirect, as the country's exports to the United Kingdom are just 2.5% of the total. In the area of investment, the output perspective M. Britain from the EU is likely to lead to a slowdown of the annual net flow of FDI in Bulgaria in the next two years (2016-2017). Specifically, the revised forecast of UniCredit Bulbank by taking into account the impact of Britain's exit from the EU (Brexit negative spillover effect), point to a rise in FDI in 2016 at 2.7% of GDP (from 3.6% previous forecast) and in 2017 by 2.4% (versus 3.8% previous forecast).

Finally, almost imperceptible will be the impact on the financial sector, the Bulgarian economy is assessed as particularly robust and based on a sound financial basis. As regards the growth rate of GDP of Bulgaria, that according to the estimates of UniCreditBulbank will slow by 0.2% for 2016 and 0.9% for 2017 and will stand at 3% and 2.7% respectively (against an initial forecast of 3.2% and 3.6% respectively). If no reaction with appropriate policies, then GDP growth will improve slightly and will be around 3.2% for 2016 and 3% in 2017. www.nsi.bg ,15/10/2016)

In addition, Bulgaria has proven that it can loosen its economic policy, without endanger macroeconomic stability. This is achieved mainly thanks to the substantial progress achieved by Bulgaria in terms of fiscal consolidation especially in the last 1.5 years, when he managed to turn a deficit of 3.6% in 2014 to record a surplus of 3.5% surplus in June TE Thanks to this positive development, the country has "fiscal space" to increase of budget expenditures, preferably investment costs. Furthermore, research conducted by the IMF and other scholars shows that the increase in capital expenditure tends to be associated with a stronger positive effect on economic growth. Finally, it was estimated that if the budget this year close with a deficit of 1.8% of GDP and widening to about 2.5% next year, the Bulgarian authorities will be able to compensate for about half the negative effects cause Brexit the rate of economic growth.www.nsi.bg ,15/10/2016)

According to the data from the NSI 'Social Inclusion and Living Conditions' (EU-SILC) survey in 2015 the average monthly poverty line for the country is 325.83 BGN per person. The number of persons who are below this line is 1 585.8 thousand representing 22.0% of the population in Bulgaria. In 2015 the share of children aged 0 - 17 years in at-risk-of-poverty is 25.4%, or 305.6 thousand.(www.nsi.bg ,15/10/2016)

Concluding Remarks:

Poverty is a complex social problem that is particularly important for human society. Specifically the poverty in Bulgaria is characterized by new forms and the inherent specificity caused by the history, traditions and changes in society.

Actually the level and growth of GDP per capita are extremely important factor for development, but it is not sufficient, because the end result is first and foremost the broadening of the spectrum of human possibilities. The human development is a fundamental right of the people and it should be seen as a process.

Today there are numerous interpretations of poverty, which naturally leads to different approaches to the understanding of its causes, the essential features and tools to overcome.(Alkire, Foster, 2011)

Some authors believe that the most important is poverty be considered in its moral and ethical context, urging the monstrous and unacceptable for the twenty-first century manifestations of the images of life of people existing in a serious and unacceptable living conditions. Other authors in their, political populist style present for supporters of the radical solving the problem of poverty at the expense of carrying out spectacular, but unrealistic programmes for state support of those in monetary crisis populations. Third authors - from the position of the economic analysis of causality factors of poverty, identify material indicators on the border of poverty determine the groups of poor and non-poor population. Fourth group of authors, turn their eyes to the real picture of poverty in the country with its regional diversity, the place of the poor in the social structure, their actual capacity to realize their vital daily needs and life chances for a better life.(Becker,*et.al.*,2010)

And finally, after the 90-ies years of the twentieth century, more and more often the researchers prominence the concept of poverty as a regular phenomenon accompanying the development of each type of society, regardless of the local culture and the stage of its development. (Ruseva*et.al.*,2015)

These empirical conclusions are reflected in the widespread notion of "structural poverty". This is recognition of poverty in its capacity of immanent characteristic of society as a social system. This is a problem that is impossible to be solved only by economic means. Against the background of these "relative" poverty interpretations clear and strict definitions of types of poverty may be offered - it is the ultimate insufficiency of the existing material values, goods and financial means which are necessary for the normal life of the individuals and their families. At that as a poverty threshold the statutory level of funding per person, family for a certain period of time is proposed to be adopted. This level provides physiological minimum necessary for life. Traditionally, poverty is considered in one-dimensional perspective, namely its capacity of the income deficit, state of deprivation of financial resources. From this perspective, the reduction of the poverty rate represents the efforts aimed to increase the income and focus on the economic growth. It is obvious that the income approach to poverty does not reveal its nature, extent and depth.

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