HEALTH STATUS AND ECONOMIC
GROWTH – CASE OF ALBANIA

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Abstract

Recent World Bank reports, as well as recent studies by economists, highlight the growing importance being placed on health issues and their impact on the economy. Health affects directly the well-being of the individual, but not only. Health constitutes an important component of human capital, thus becoming an integral part of the production function. Modern theories of economic growth have further developed classical theories, giving us a clearer picture of growth factors. The inclusion of health in economic growth models not only identifies new sources, but gives us more accurate projections for the future and gives us ideas for more complete and accurate reforms. Based on these findings and the fact that health as part of economic growth is becoming more and more important, this scientific study was conducted, the main purpose of which is to analyse the impact of key health indicators on the sustainable economic development of Albania and countries of the region.

Keywords: Health status, economic growth, health indicators, fertility rate, mortality rate, life expectancy, economic development

INTRODUCTION

Based on the evidence of the microeconomic level on the impact of health on economic results, there have been ongoing efforts to support these findings through evidence of the macroeconomic level on the impact of health on economic growth. This macroeconomic approach has been essentially an adaptation of the production function from the firm level to the national level which aims to explain the changes in per capita income.

Efforts in this direction include analyzing the components of the growth process and identifying key points to include the 'health' factor in the growth analysis. The two main approaches are the Solow (and) neo-classical model and the "new growth theories", as will be explained below. Economic growth models have been expanded to include the importance of health as a contributor to human capital. The inclusion of human capital in neo-classical, or exogenous, theories of growth, mainly established earlier by Solo (1956) and Sean (1956), enables us to include three approximate sources of income differences: Physical capital, human capital and technology.

Human capital (e.g. health, education, skills, training, etc.) is involved in the overall production function of the Solo model in two different ways: as a separate factor of production (Mankiw et al., 1992; Knight, Loyaza, and Villanueva, 1993; Knowels and Owen, 1995) or as a determinant of technological development (e.g. Benhabib and Spiegel, 1994; Knowels and Owen, 1997). However, the inclusion of the health ingredient in growth patterns goes beyond the traditional Solo type (and its enhanced versions). The positive effect of health on economic growth has been identified both in the exogenous growth model during the transition to steady state and in the endogenous growth model.

The standard neoclassical growth model that introduces household optimization and endogenizes savings, has contributed by paving the way for further analysis of capital accumulation, human capital investment, and endogenous technological advancement. Also, dismissing the representative assumption of the family, there has been a major departure from the basic model of initial neo-classical growth with the advent of the overlapping model generation (OLG). The study of the interactions between economic development and longevity has been enriched by OLG models with endogenous longevity (see, for example, Chakraborty, 2004; Bhattacharya and Qiao, 2005; Shang and Leung, 2003). These models include health care and its interaction with other forms of investment choices.

The theory of endogenous growth departs from the neo-classical theory of growth emphasizing that technological progress in itself is an economic process, with economic determinants, very similar to the process of capital accumulation. Therefore, endogenous growth theories suggest that when human capital is taken into account in the process of capital accumulation, there is no reason to think that reduced return will reduce its marginal output below zero (as explained by neo-classical growth theories) because part of that accumulation is mostly the technological progress needed to combat declining returns. Theories of endogenous growth paved the way for researchers to include primarily education, and subsequently, health as important determinants of technical progress (see Lucas, 1988; Barro, 1996; Barro) and Sala-i-Martin, 1995; Rebelo, 1991; Mankew et al., 1992;).

REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE AND THEORIES OF ECONOMIC GROWTH

After highlighting the importance of human capital in economic growth, various researchers have conducted empirical analyzes to test the impact of health on economic growth. Barro (1997) concluded that high level of education, high life expectancy, low fertility rate, low government spending, good rule of law performance, low inflation are factors that improve a country's economic growth. He used panel data for 100 states from 1960-1990.

Bloom, Canning, & Sevilla (2004) included health in a well-defined production function to test the effect that health has on labor productivity and the strength of that effect. They evaluated a production function including health, and work experience. They used panel data observed every 10 years in the period 1960-1990. Their main result was that good health has a significant positive impact on real GDP. They concluded that longevity has a positive impact on labor productivity. Their result was that, one year improvement in the lifespan of a population, brings about a 4% increase in real output. Thus improvement in health increases production not only through increased productivity but also in capital accumulation.

Kambiz, Roghieh, Hadi, & Rafat (2011), analyzed the relationship between health and economic growth. Their study was conducted with panel data for countries such as Indonesia, Iran, Pakistan, Bangladesh, Burkina Faso, Saudi Arabia, Kyrgyzstan, Kuwait, Mali, Malaysia, Egypt, Somalia, Uzbekistan, Tajikistan and Turkey for the period 2001-2009. They used a semi-logarithmic model where economic growth is determined by real GDP, investment as a percentage of GDP, trade openness, longevity and fertility rate. Their result showed that an increase in life expectancy positively affects the economic growth of these countries. Fertility resulted in a negative impact on economic growth.

Hashmati, (2001), studied the conditional convergence of OECD countries of real GDP and per capita expenditure on health. He also highlighted the two-way link between GDP and health care spending. The result showed that these countries converge at a rate of 3.7% each year in their steady state, reinforcing the hypothesis that rising health spending has a positive impact on economic growth. Contrary to this conclusion (Mankiw, Romer, & ileil, 1992) showed that this factor does not affect the growth of the country. Rivera & Currais (1999) also assessed the link between health and economic growth in OECD countries for the period 1960-1990. Per capita health expenditure was used as a proxy variable for health. They showed that countries with higher health spending had higher economic growth. They identified investment in health as a key factor in a country's real output. The authors estimated that the education of the population was not the only factor that affected labor productivity, but also the health condition of workers has a major impact.

Weil (2005) used microeconomic assessments to structure a macroeconomic assessment to look at the effect of health on economic growth. Its main purpose was to show the impact of health on the income gap between rich and poor countries. It then aimed to calculate the increase in income from work as a result of improving the health of the population of poor countries. He used data from three health indicators: the average height of men, the survival rate of men, and the age of onset of menstruation in women. The analysis shows that eliminating inequality in health between countries would reduce the difference in the logarithm of GDP per worker by 9.9%. This effect is statistically significant, but smaller than the result obtained from regressive cross-country estimates.

Barro (1996) found that a 10% increase in the life expectancy of the population brings about a 0.5% increase in the economic growth of the country. His empirical analysis with panel data across 100 countries Economic growth is positively impacted by the education level of the population, life expectancy, low fertility, low government spending, and improved law.

Health and economic growth

Few studies on health and economic growth have emerged slowly since the beginning of the last century. However, different approaches have also identified several channels through which health affects the level of economic performance of a country. In the recent work of Akram, Padda and Khan (2008) used, health expenditure, longevity and mortality rate as the main health measure affecting economic productivity for Pakistan. In their conclusions, they clearly noted that all health variables have an important role to play in determining the long-term implication for economic growth. However, the error correction model reveals that health variables do not have a significant impact on economic growth even though this relationship occurs only in long-term phenomena. Malik (2006) focused on the analysis of health indicators on life expectancy, mortality rate and fertility rate using a five-year India database from 1975-80, 1985-90 and 1997-03. In addition, he also looks at the impact of the HIV / AIDS incidence of economic growth using growth rates as a representative of economic growth. The study found that HIV / AIDS was not a factor influencing income, but other diseases may provide a better explanation for why growth rates change over time.

Bhargava, Jamison, Lau, and Murray (2001) examine the impact of adult survival (ASR) levels on GDP growth rates over a 5-year interval for 92 countries. The result shows that ASR is a significant predictor and positively correlated with economic growth. Other variables included in the studies are trade opening and the ratio of investment to GDP. The result shows that the opening of the economy was positively associated with growth rates, as well as the investment / GDP ratio.

Similarly, Currais and Rivera (1998) identified the role of health status in productivity. In the study, they explore the existence of the opposite cause suggested by a previous study. Currais et al., (1998) use the Hausman Test and different sets of instrumental variables were used as exogenous determinants of health expenditure. The result shows that health affects income growth both positively and significantly. However, the possible presence of endogenity may have prejudged the observed results.

Numerous studies have been done on the relationship between economic growth and health, however the findings are controversial. Based on a study conducted in several Asian countries that have 24 years of continuous annual data, Djafar and Husaini (2011) found results which show that Asian countries are proportionally distributed in four major cycles: virtuous, bad, healthy and growth cycle. Countries with lower middle income have the most dynamic cycle as they are distributed in all four cycles, while other countries are distributed in only two cycles. Djafar et al., (2011) also tested the cause between economic growth and health. The findings show that causality between economic growth and health is more likely to occur in the long run than in the short run.

Moreover, the causality between economic growth and health varies across countries. Therefore, Djafar et al., (2011) tend to conclude that Asian countries should focus on the long-term plan ranging from economic growth to health rather than vice versa. Preston (1975) shows a direct relationship between a country's GDP and the life expectancy of its population. The study shows that infant mortality, life expectancy and overall health improve as per capita income increases especially among the lowest per capita nations. The result shows that income elasticity of child mortality rates is estimated in the vicinity of -0.2 and -0.4 indicating that a 10% increase in per capita income is accompanied by a decrease of 2% to 4% of child mortality (see Pritchett and Summers, 1996).

Similar results displayed in the Committee on Macroeconomics and Health (CMH, 2001) show that a 1% increase in per capita income in developing countries could result in up to 33,000 fewer children dying per year. Sorlie, Backlund, and Keller (1995) suggest that people with higher incomes and better overall social conditions have on average better health outcomes than less affluent individuals. Sorlie et al., (1995) found that men in the United States with a family income in the top 5% of income distribution have a 25% longer life expectancy than those in the bottom 5%. Chang, Cosby and Mirvis (2008) describe the connection between how health can also lead to wealth. The study shows that illness and death are the common causes of increasing poverty in the world and the economic consequences of illness are among the leading causes of personal debt in the United States.

Improved health that lasts years of work also promotes income growth by extending the duration of economic productivity. Better health is associated with a better quality of life and can increase the economic value of increasing economic productivity. Recently, Majdi (2012) conducted a study on how the cost of health care affects GDP per capita for 15 countries on the northern and southern shores of the Mediterranean during the period 1990-2008. The result shows that health care costs are positively related to economic growth. The estimate provides a modulus of elasticity of GDP growth relative to the cost of health care of 0.86 in the Mediterranean countries of the North Bank and 1.2 in the Mediterranean countries of the South Bank. Majdi (2012) also includes other variables, similar to previous studies such as Preston (1975) and Malik (2006) that are essentially focused on life expectancy, mortality rate, and the implication of human capital (education) for economic growth. The result also shows that none of the explanatory variables has a negative correlation with GDP per capita. A 10% increase in life expectancy generates an increase in economic growth of 18.9%.

Key Health Indicators and Economic Growth (The Case of Albania)

Economic growth is the key word of any economy, of opportunities for stable finances, of employment opportunities and reduction of unemployment, of opportunities for increased consumption, of sustainable development policies, etc. Major international institutions, such as the IMF or the World Bank, or any government, of any country, face the pride of its success, or the face of criticism with the figures of economic growth it achieves. Gross Domestic Product (GDP) calculates public debt, budget deficit, public investment, foreign direct investment, fiscal burden, etc.

Economic growth is considered as a "thermometer" or "greedy letter", which, on the one hand, reflects and proves the state of the economy and the financial system, its functioning, efficiency and capacity which is reflected in the percentage of economic growth and, on the other hand, reflects the concrete opportunities and results for the realization of a series of economic, financial and social policies, which depend significantly on income, which come precisely from the economic growth figure. Agriculture, forests and fisheries continue to make the greatest contribution to economic growth; trade; transport; Hotels, Mining and processing industry; energy; Water supply, Public Administration; Education; Healthcare; Construction; Real estate activities; Information and communication; Financial and insurance activities.

In this sense, the "portrayal of economic growth", its "main features" confront us more clearly with the responsibility of building a sustainable, well-structured and efficient economy, capable of withstanding crises or difficulties, that arise from business cycles and important structural reforms, as they confront us with responsibilities for social policies, sustainable

development, etc. By synthesizing the features of economic growth in Albania, in these 28 years of transition (1991-2018), some important elements can be outlined.

There have been large fluctuations, which have reflected the specifics of the Albanian transition; Starting from a very low starting base; Ongoing political conflicts, severe social unrest in 1997 and 1998; The effect of structural and transformational reforms in the framework of agreements with the IMF and the WB starting from 1992 until today; Favorable regional and international economic situations or the global financial crisis; The economic situation of neighbors such as Greece and Italy, etc. We had 5-6% growth in 1994-96, negative growth in 1997, we reached almost 8% in 2008 to drop to 1.3%, in 2012 and 0.9% in 2013. Albania entered a trend of positive economic growth in the period of 2013-2018, reaching 4.2%.

Graph 1 The variation og GDP 1991-2018
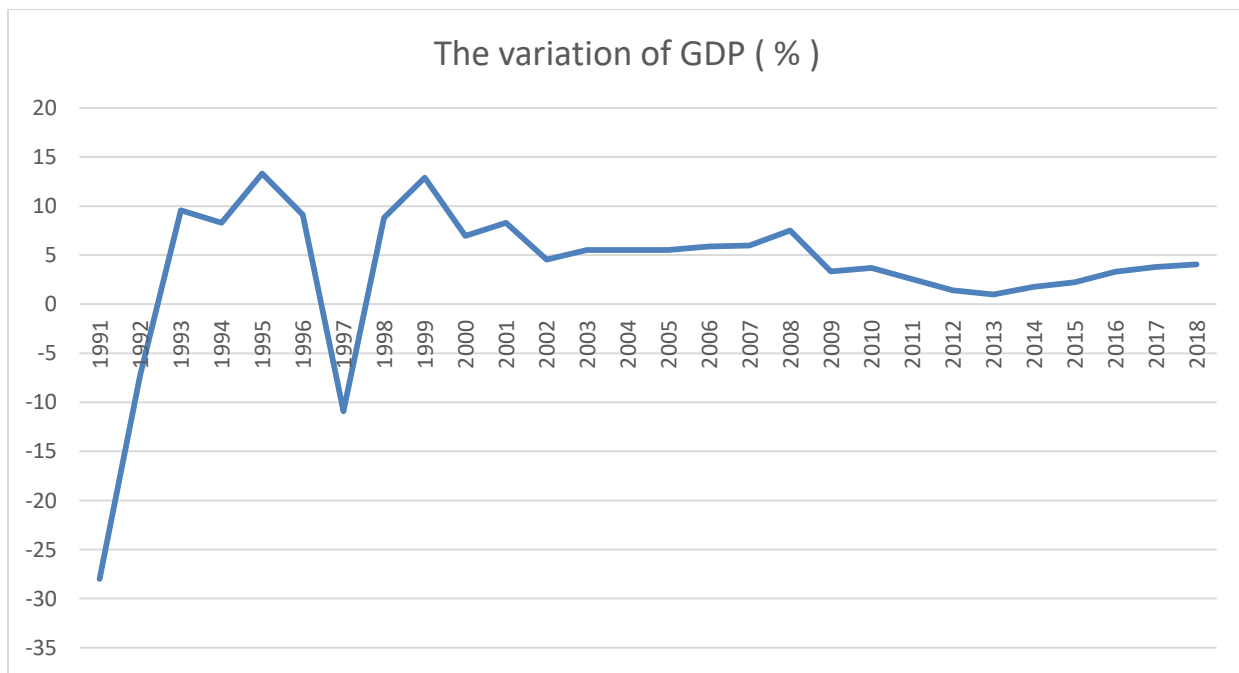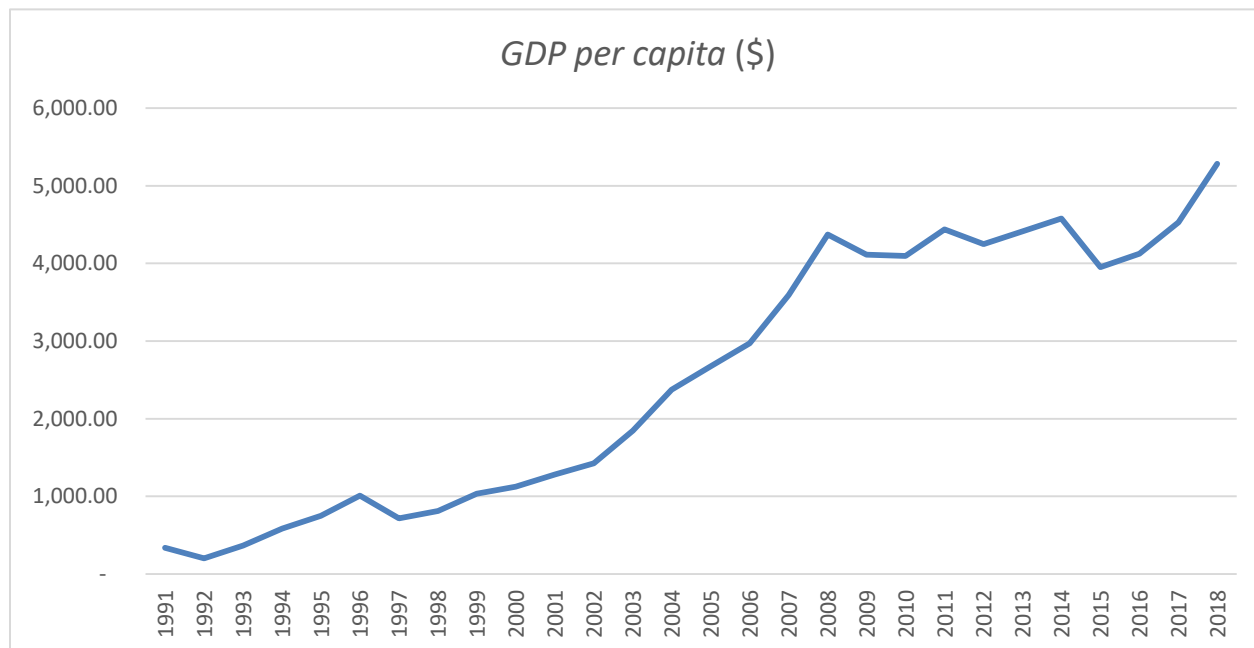

Source: World Bank

Forecasts of the Ministry of Finance or international institutions such as the IMF, World Bank or EBRD do not see the possibility of passing the 4% ceiling before 2020-2022, although in relation to other countries in the region, Albania is expected to be among the countries that will have faster economic expansion, better than Bosnia (3.2%), Bulgaria (3.6%), Croatia (2.8), Serbia (3.5), Montenegro (3.7%) and the same with Kosovo and Serbia.

Another important indicator of economic growth is GDP per capita. This indicator eliminates the problems that can be caused by incorrect interpretation of real GDP. The change

of the latter provides information about the economic situation in the country but not about the welfare of the population. In Graph 2, we see the mainly positive performance of this indicator.

Graph 2 GDP per capita 1991-2018

GDP per capita ($)

Source: World Bank

The level of labor productivity in Albania is lower than in any other European country. Also, productivity is under a constant threat, as the population of Albania is aging, which in the medium and long term will put pressure on productivity growth.

Therefore, there is a need to further analyze one of the main indicators of health, which is the life expectancy at birth.
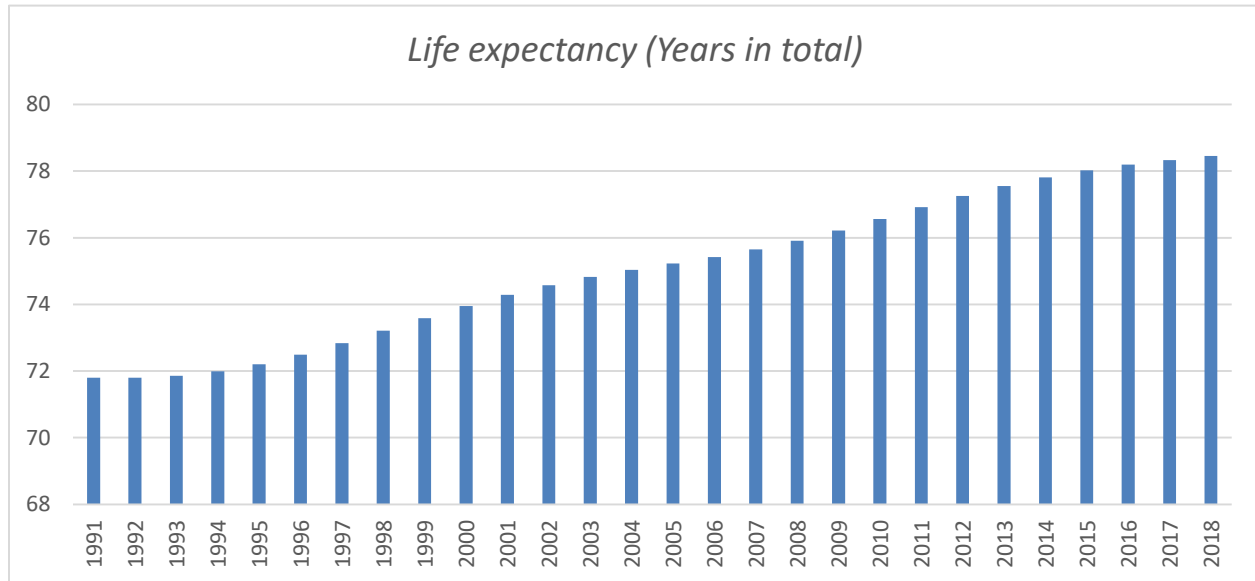
Life expectancy

Graph 3 shows the life expectancy at birth for the period 1991-2019. As can be seen, the level of life expectancy has had a positive trend, a phenomenon that is expected to have a positive impact on economic growth in the long run. The global problem today is longevity control taking into account the risk of unhealthy living. Problems such as alcohol, drugs or fast food are factors that negatively affect this indicator.

Compared to the countries of the region (table 3) Albania is second with the highest life expectancy ranked after Slovenia

Graph 3 Life expectancy 1991-2018

Life expectancy (Years in total)

Source: World Bank

Table 1 Comparison of average life expectancy in Balkan countries

Name of the country	The average life expectancy
North Macedonia	77.31
Albania	75.07
Bosnia and Herzegovina	74.61
Serbia	73.77
Slovenia	73.77
Bulgaria	72.68
Romania	72.08

Source: World Bank, Author's calculations

Over the past two decades researchers have witnessed a significant decline in fertility rates. Given that social changes are continuously affecting this indicator. Joffe (1996) argued that smoking was one of the most important factors in reducing fertility.

Even in Albania this indicator has dropped significantly. According to Chart 4 from 1991 there has been a steady decline reaching the minimum value in 2008. The global crisis of that year may have been one of the main causes. Economic impossibility and insecurity may have had their impact. After this year the growth has been moderate. According to official figures, the last two years have seen another decline, reaching 1.67 births per woman. This fertility rate does not even reach the population replacement rate, bringing negative forecasts for the future.

Graph 4 Fertility rate 1991-2018 in Albania

Fertility rate in totale (birth per woman)
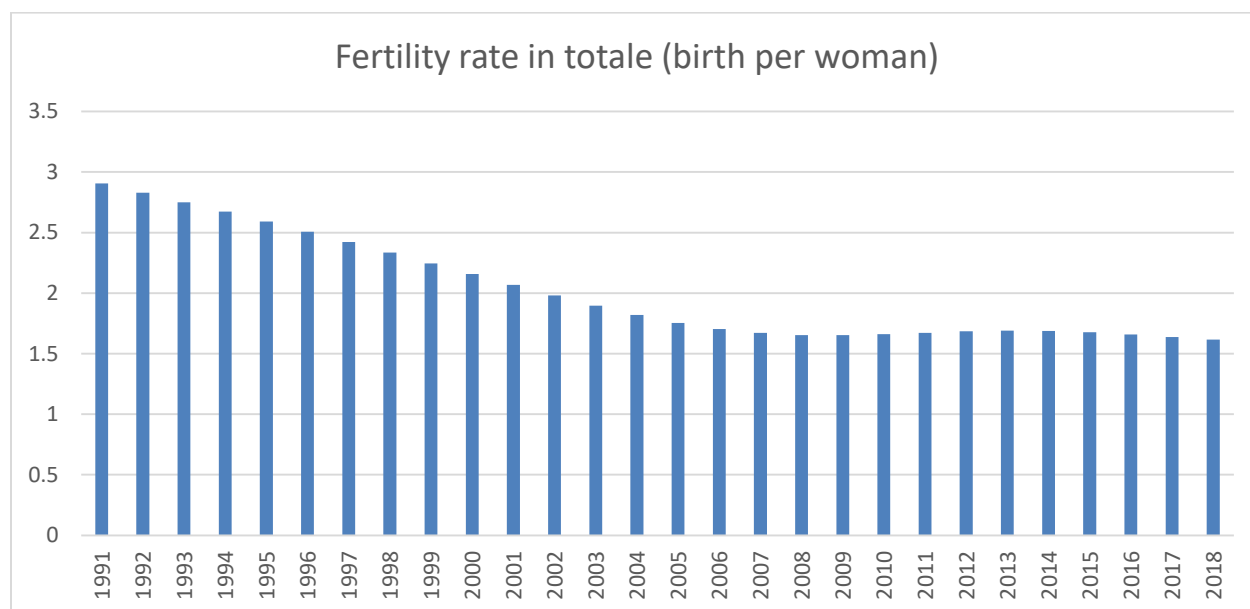
Source: World Bank

Compared to the countries of the region as shown in Table 4 below, Albania ranks first for the highest fertility rate. This is positive compared to the region but still does not reach the population replacement rate.

Table 2 Average fertility rate country-wise

Name of the country	Average fertility rate
Albania	2.02
Slovenia	1.67
Serbia	1.50
Romania	1.46
Bosnia and Herzegovina	1.44
Bulgaria	1.41
Northern Macedonia	1.39

Source: World Bank, author calculations

CONCLUSIONS AND RECOMMENDATIONS

Macroeconomic analysis aimed to analyze the main indicators of health in the country's economic growth. The improvement of classical growth models with the introduction of human capital as an important input was further developed when health was included as part of human

capital. Numerous theoretical and empirical assessments are proving every day more and more impact of health on the economy.

The design and implementation of health-focused policies are necessary for the economic development of the country.

Taking into consideration Albania as a case of study, it shows a stable macroeconomic growth, albeit at low rates.

Health indicators for Albania have a positive trend. Compared to the Balkan countries, Albania has the best levels of these indicators. There should be the right policies in order to maintain or improve the levels of these indicators.

The institute of statistics should release updated data as a proper input for further policy making.

The fertility rate remains a problem as in most countries today. Low fertility rates are a global problem nowadays leading to population aging and non-regeneration of the workforce.

Policies undertaken in relation to economic growth must necessarily focus on health as one of the key factors in human capital and economic growth

Public policies should create, regulate, and maintain public goods that foster supportive environments for good health.

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