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The Evolution of Inequalities and the Impact of Education on Economic Growth in Romania

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Abstract

Among the most important economic challenges currently faced by both Romania and other advanced economies is the increase in inequality. This paper aims to address the evolution of inequality over time starting with the global financial crisis until these days by using descriptive methods in order to view the evolution of some economic indicators that measure inequalities and how Romania recently addressed the issue at hand. It is commonly accepted among economists that problems related to measuring inequalities may cause underperformance for both developing and developed economies. Throughout the literature there are also findings that inequality serves as a barrier between economic growth and living standards, generating income largely for those at the top and thus making it more difficult for poor people to make a difference in living standards regardless of the cycle in which the economy finds itself. Among the findings of this paper the lack of investment in human capital and therefore in education stands out even tough starting with 2013 economies have started growing with healthy growth rates.

Keywords: Economic growth, inequality, GDP, GINI coefficient, macroeconomics.

JEL Classification: E20, E60, D63, I24, I25

1. Introduction

As capitalism encourages better results and sustains an enlightenment agenda or freedom of equality, one of the drawbacks of it is the fact that it also increases inequalities of wealth and power. To a certain point, the existence of these inequalities is only natural as it is one of the ways to encourage innovation and progress. Nevertheless, increased inequalities may cause problems for both developing and developed economies. Thus, economic growth has become a simple

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concept for many households in the poverty or middle zone, which seek to increase GDP, productivity, the stock market and corporate profits, while their incomes either stagnate or grow much slower. The global economic crisis that started with the housing bubble in the US in 2008-2009 has brought into the eyes of policy makers, researchers and the general public the problem of economic inequality. One of the issues that the modern-day society must face is to reduce inequality therefore increasing the convergence of the EU member states and even the entire world, in the light of the 17SDGs (Fonseca et al., 2020). This paper aims to analyse how inequalities evolved over time by performing a descriptive analysis, selecting some indicators that reflect this evolution based on professional judgment and also underlines the need for making efforts to pursue growth and address inequality.

Determining exactly why some countries on the globe managed to grow faster than others is arguably one of the main challenges that development economics are facing. Questions that relate include the reason why the West got rich before the rest and also why some developing countries are catching up with the west while others demonstrate a rather slow catching up process. There is little to no consensus reached by economists on the best policies to be pursued in order to obtain sustain rapid economic growth. If one adopts the neoliberal approach, economic liberalization is the basis for rapid growth and reducing inequalities. In contrast, others have given the credit of progress to policy interventions while other voices are stating the idea that foreign direct investments are the key. Nevertheless, in order to attract more FDI`s certain conditions need to be met by the economy beforehand, conditions such as infrastructure, human resources, strong institutions, economic stimuli etc. By taking into account one of the conditions mentioned, in order to develop human capital, education is a prerequisite for evolution.

2. Problem Statement

There are many reasons to examine potential factors leading to income inequality. First, a more equitable distribution of revenues can be a political goal in itself and would indeed gain important global attention in the context of the global financial crisis. There are various channels through which income inequality can affect other macroeconomic variables, in particular economic growth. While some income inequalities may provide incentives for economic activity or minimum capital for certain people according to Barro (2000); Lazear and Rosen (1981), inequality of wealth and income can lead to: insufficient investment in human capital (Galor & Zeira, 1993), inefficient allocation of talent; reduction of aggregate demand (Carvalho & Rezai, 2014); impeding intergenerational mobility (Corak, 2013) and the risk of social stability. Some authors have shown that less equal income distributions are associated with lower average growth such as Ostry, Berg and Tsangarides (2014). Argatu, R. (2018) states that in the absence of coherent strategies individuals' chances of having a good quality life and escape the deficient social situation they are in are hindered, thus also affecting the number of people with access to higher education.

Inequality is affected by a number of factors according to the literature, factors such as economic growth, demographic factors, political factors, cultural factors and factors related to macroeconomics. In the literature on income inequality, the factors related to economic development have undoubtedly received the most attention. These factors are: a country's wealth (mostly measured as GDP per capita), economic growth, technological development and economic structure development. As a country's wealth increases, the wealthiest people and entrepreneurs have more opportunities to increase their income as stated by Chang and Ram (2000). Also, Hadad (2018) states that education, training, technological progress and good governance is taken into account when measuring the degree of competitiveness of a country.

Evidence also shows that inequality reduces the share of the agents that are able to invest in human or physical capital thus correlating inequality in a negative way with economic growth. Example of such papers are Banarijee and Newman (1991) and Galor and Zeira (1993), papers which study the imperfections of capital markets and investments by using moral hazard and risk adverse individuals as sources for the imperfections of the capital markets. Acording to Samad (2020), human capital, social capital, and innovative firm performance are positively and significantly related and thus suggesting the importance of education. Another implication of inequalities studied by Galor and Zeira (1993) is the fact that under the conditions of fixed costs existing in education, the risk of poor households being caught in a poverty trap causing inequality to exist generation after generation increases, thus leading to an inefficient allocation of resources. With regard to political factors, there are voices such as Benhabib and Rustichini (1996) and Grossman and Kim (1996) that state that inequality is correlated positively with socio-political instability due to the fact that the poor may engage in predatory activities at the expense of the richer class. Although theoretical literature on the subject of inequalities is continuously growing, empirical studies has been evolving at a slower pace. The reasoning behind this is the fact that data availability is scarce and there is a high difficulty of finding measures of redistribution that are cross-country comparable especially due to the fact that the fiscal system from a country to another is fairly different. Persson and Tabellini (1994) have found in their model that a negative relationship between inequality and growth does exist.

3. Research Questions/Aims of the research

One of the most important facts regarding inequalities, in order to offer a start point for an analysis is how inequalities have evolved over time, and what did some countries do in order to best tackle it. Also, what other indicators of inequality may be analysed in order to view the problem at its full size? By analysing the evolution of the GINI coefficient, the school dropout rate and the expenditures regarding education as percentage of the GDP in this paper, it is visible that things can be improved even tough steps have been taken in this direction.

4. Research Methods

The goal of the paper consists in providing a transparent view of poverty and social exclusion within a sample of countries with similar economies and also to point out the importance of education on the long run while underlining that both in the past years and nowadays education is underfunded in Romania as opposed to the countries analysed.

In order to obtain the results presented in this paper, an analysis has been made on various indicators in the Eurostat database and also a review on the literature that clearly states issues that inequalities may cause. The time period analysed starts with the beginning of the financial crisis in 2007-2008 and ends in 2018 and 2019 depending on the available data. A larger time period was selected in order to see a clear evolution of the selected indicators for countries with similar economies. The adopted sample consists of the Czech Republic, Hungary, Poland and Romania. The reasoning behind selecting the respective countries is the similarity of the economic structure of these countries, the same structure being used by the National Bank of Romania in their research.

5. Findings

From an economic point of view, if one adopts a Keynesian approach, increasing the minimum wage could instantly decrease inequalities. Even so, by taking this path there is a possibility that could provide an even bigger barrier in terms of reducing poverty due to a possible increase in unemployment. In order to capture the evolution of inequalities a series of indicators have been selected for analysis.

The Gini coefficient is one of the most commonly used measures of economic inequality.

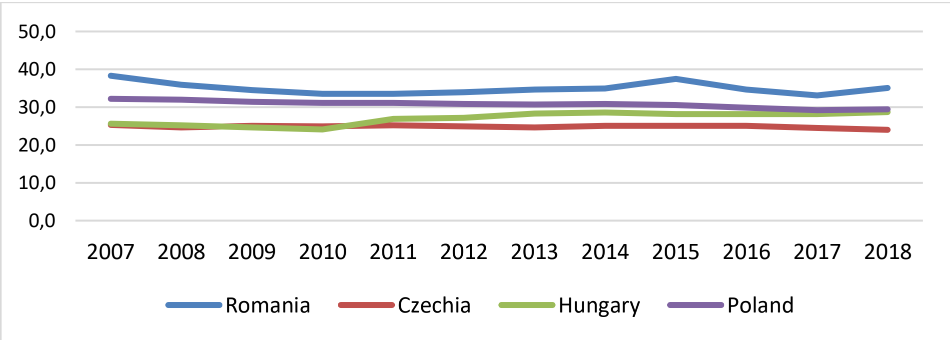

Figure 1. GINI coefficient
Source: Eurostat

Regarding the Romanian economy, it has a fairly high GINI coefficient compared to other European countries. In Figure 1, it can be seen that since 2007, inequalities have been declining, following an increase to 37.4 in 2015. Looking at the figures by comparison, the Czech Republic has a much better evolution regarding the GINI coefficient managing to keep a fairly constant rate with a slight tendency to decrease while in Hungary it is visible that the inequalities have grown over time in the analysed time frame.

Another indicator that was chosen to be analysed is the "School dropout rate".

The indicator presented in figure 2, shows that Romania does not hold a good position having one of the highest dropout rates from the analysed sample of countries. The indicator has maintained a relatively constant trajectory as both the beginning of the assessed period (2009) and the end (2018) are around 16%. A country that expresses an increasing evolution in the school dropout rate is Hungary. These figures are an indication of the fact that reforms in education are required in order to improve the evolution on the long-term.

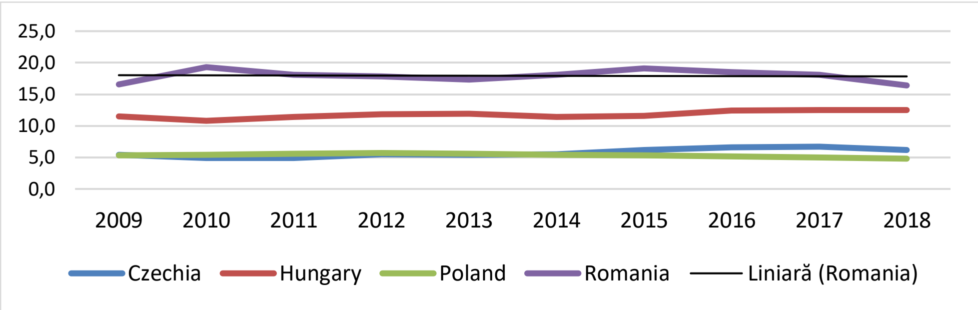

Figure 2. School dropout 18-24 (% of total population)
Source: Eurostat

Looking at the social conditions of a country, usually a country with high inequalities should in theory have a higher school dropout rate due to the poor living conditions. Income inequality and residential segregation might combine to create an inequitable and inefficient distribution of education spending. Also, high inequalities, from a psychological point of view, might cause people to become pessimistic about their future and underinvest in their education. Another indicator that is in correlation with the school drop-out rate and needs to be analysed is the public expenditures with education as percentage of GDP.

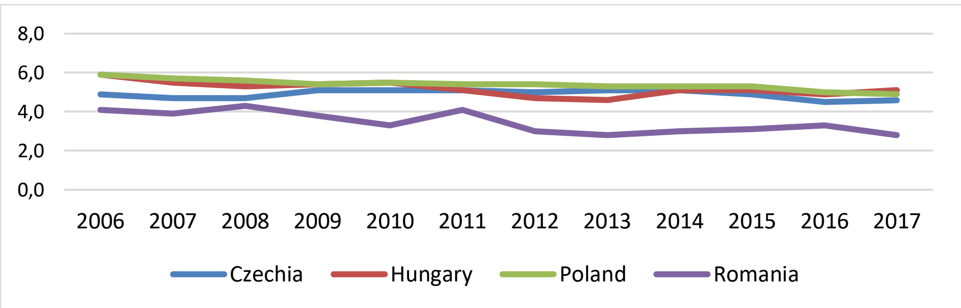

Figure 3. Public expenditures with education as percentage of GDP
Source: Eurostat

For education expenditures, Romania has allocated the lowest percentage of GDP to this sector. In 2017, spending fell to 2.8% of GDP, while countries such as the Czech Republic, Hungary and Poland totalled around 5%, almost double than Romania. The obvious cuts in education spending can be seen from the moment the financial crisis began to take effect, starting with 2009, 2010, the decrease amounting to 1% and then, in 2011 to return approximately to the initial level. However, since 2012, the share of education expenditure has been steadily declining, which may be worrying in the context in which the universally accepted view is that poor education can have a negative influence on future economic growth. Looking at economic growth, it is visible that Romania has one of the highest rate of growth in the entire EU, thus an increase in education expenditures is possible.

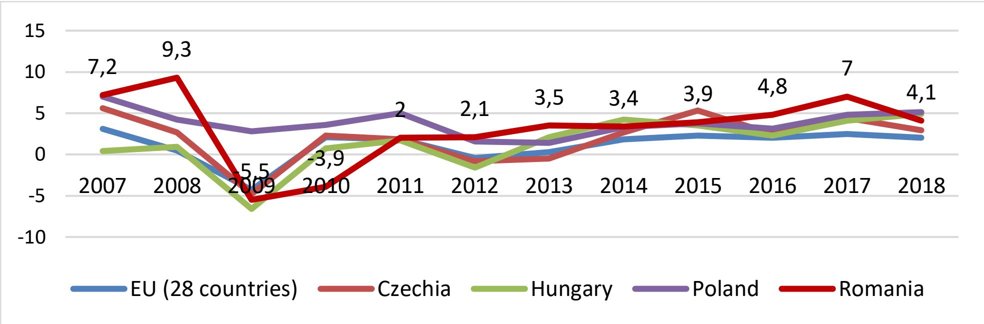

Figure. 4 Economic growth
Source: Eurostat

Starting with 2013, Romania's economic growth seems to be healthier, with approximately constant growth rates, the economy growing from year to year by about 10 billion euro. In 2017, the economic growth was significant, namely about 17 billion euro, as compared to the previous year, where it can be said that the measures taken in recent years by Romania favour a strong and stable economy. Even so, this indicator is not necessarily a clear indication of the fact that inequalities are going well, since Romania is a developing economy, with a lower GDP/per capita compared to other countries.

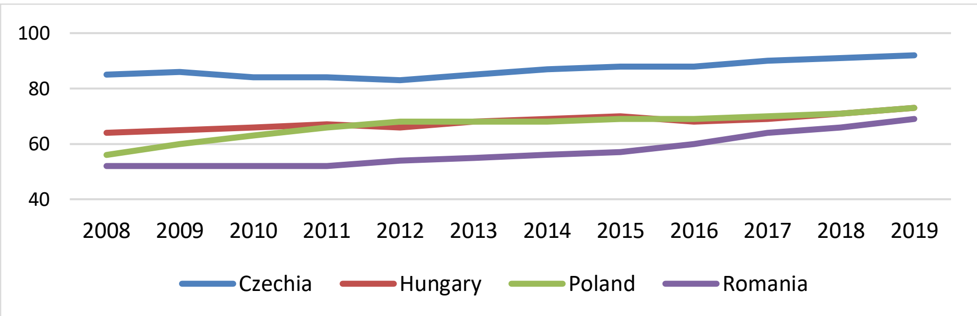

Figure. 5 GDP/Capita in PPS
Source: Eurostat

By analysing Figure 5, it is visible that this indicator is improving and convergence issues between Romania and countries such as Poland and Hungary are decreasing. Starting with 2016, Romania`s GDP/capita faces a more accentuated improvement due to decisions to increase wages in the budget sector and also to increase the minimum wage using the wage-led growth strategy adopted in multiple countries across the EU. By correlating figure 5 with figure 1 and 2 it is visible that the measures adopted were efficient in reducing inequalities.

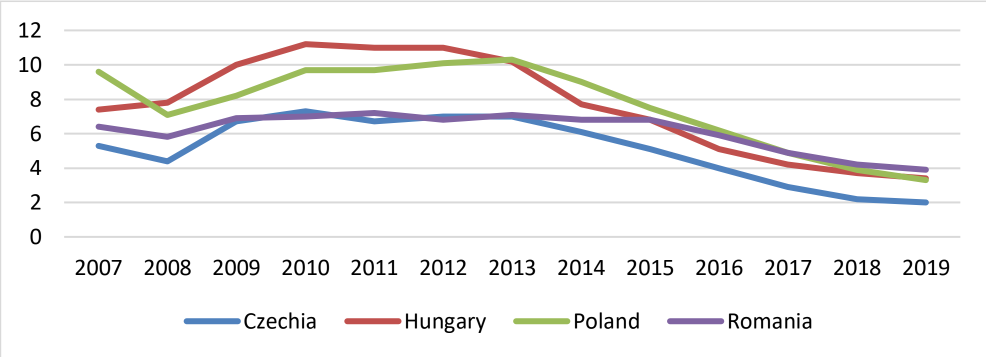

Figure. 6 Unemployment rate – 15-74
Source: Eurostat

Also, taking into account the fact that increasing the minimum wage could provide a barrier in improving inequalities, the unemployment rate was analysed. In the period 2015-2019 Romania unemployment rate evolved in a positive way unemployment reducing by approximately 4% on average as it is visible in Figure 6. By analysing the data, it is visible that the GINI coefficient in Romania needs improvement. Looking at the school dropout rate, all countries could improve in the sense of reducing the number of school dropouts. In order to do so, the state should take measures in order to facilitate access to education and to courses in order to increase the confidence in the education system and in what pupils could accomplish by completing their studies. The school dropout rate could be correlated with the investment in education. By looking at the analysed data, it is visible that Romania has the lowest percentage of the GDP allocated to education while also having the highest school dropout rate. By increasing the percentage of the GDP allocated to education, in theory school dropouts should decrease due to a higher quality education on the medium and long term. Also, by looking at the GDP/capita and the unemployment rate, it is visible that minimum wage increases did not affect the unemployment rate in a negative way while reducing inequalities. Nevertheless, reforms are required in order to reach results more in line with the other countries selected in the sample. Problems like the underdeveloped infrastructure, weak institutions and underdeveloped human capital still need to be addressed by the authorities.

6. Conclusions

It is an acknowledged fact that education has an impact on economic growth. By investing in education, results appear on the medium and long term. More educated people offer more opportunities for research and innovation, thus obtaining better results in all fields of interest. By looking at the evolution over the years, it is clear that from the countries analysed, Romania has a disadvantage. Also, by reducing inequalities and giving everybody more equal opportunities, the wellbeing of the society in general should improve, especially if education expenditures were to increase. Also, considering the fact that numerous authors stated in the literature review state the fact that inequality does represent an impediment in the path of economic development and economic wellbeing, if we look at Romania, we see measures taken in order to reduce inequality. Nevertheless, it is hard to quantify, how much of the decrease in inequality actually is accounted for by the measures adopted by the government and how much is actually accounted for by the evolution of the economy in general. This research states the evolution of the main variables that highlights inequality but in order to build a standing econometric model, access to data and the differences in fiscal policy from the selected countries make this task hard to achieve. This paper may pave the way for future studies regarding the how measures adopted by the government of Romania actually impact the inequalities once more robust data becomes available.

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