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CHALLENGES EXPERIENCED BY THE HUMAN CAPITAL ABOUT PRODUCTIVITY, COMPENSATION AND ENGAGEMENT AS A CONSEQUENCE OF THE LAST ECONOMIC CRISIS

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Abstract: *This paper provides an analysis of data originating from OECD and ILO in order to evaluate how productivity, compensation and human capital engagement were affected during the last financial crisis in Romania and Bulgaria. It argues that human capital is severely more impacted in emerging economies in times of crisis, either them being financial or sanitary. The paper argues that both at a governmental and corporate level, human capital should be the focus point and main driving factor for overcoming any future crisis.*
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Key words: Human Capital, Productivity, Compensation

1. INTRODUCTION

The previous financial crisis of 2007-2008 has severely affected all branches of the economy with consequences that can be observed more than 10 years later. This is the case for labour productivity, compensation and even a more recent concept, known as human capital engagement. Whereas the productivity and compensation can be measured and analysed through hard data, human capital engagement requires a more qualitative analysis in order for it to yield valuable insights.

During recessions and declines in aggregate demand, productivity as well as the skill level of human capital have been observed to decline (Dosi et al. 2018). One can consider that the phenomenon of labour hoarding, meaning the reduced utilisation of human capital conducted by companies in their production process, has been present during the last financial crisis. The

consequences of this phenomenon can be observed in a diminishing level of hours worked (Radlinska et al. 2020).

The lesson learned from the previous financial crisis should act as a solid framework for the future of human capital management and labour markets. The current research paper emphasizes on labour productivity indicators for Romania and Bulgaria and seeks to evaluate the trends of those indicators in order to put forward valuable insights that should facilitate the decision making process of policy makers during the current times of sanitary crisis. Considering the implications of the COVID-19 pandemic over the economy, the physical and mental health of human capital, an assesment of previous challenges becomes a mandatory step for better organizing the future.

The paper is organized as follows: The first chapter represents the introduction. The second chapter is a review of the most recent literature on the subject. The third chapter presents the data used for the analysis. The fourth chapter describes the evolution of the selected indicators. The last chapter represents the conclusion and final remarks.

2. LITERATURE REVIEW

Even though the impact of the last finacial has had severe consequences over economies worldwide, the pace with which they recovered differed. A study of Sultanova and Chechina (2016) suggests that the driving factor of economic growth in times of crisis consists in the innovational capacity of human capital. Furthermore, Fraumeni (2012) puts forward the concept of human capital productivity, which although related to labour productivity, is considered to represent a different indicator. Human capital productivity includes the future potential of the population which could have significant implications over future economic growth.

Therefore, policy makers ought to carefully take into account the unused potential of the human capital as a strategy to recover from any future crises. Arshad and Malik (2015) find that the quality of human capital quality has significant positive effects over labour productivity. In their research, the authors point out that the health status of human capital has a higher impact than the one of educational attainment. This effect is also highlighted by Schwerd and Turunen (2009) which advise towards accounting for a quality-adjusted number of hours worked.

In times of economic downturn, such information might be useful for governments so that an efficient allocation of resources is realized. Whilst analyzing total factor productivity, Mannasso, Hein and Rubel (2018) find investments in human capital to yield positive results.

While human capital is a valuable driver of productivity, not all countries have managed to implement effective policies to optimize this resource to it's maximum potential. In the case of Russia, a mismanagement of human capital, among other factors, has led the country to remaining a middle income economy (Awan, 2021).

During times of crisis the lower levels of productivity are followed by changes in the levels of wages. In this regard, governments can intervene in the economy through adjustments in the minimum wage. Individuals will experience either decreasing inequality as the minimum wage rises or a diminishing youth employment (Dolton and Bondibene, 2012). According to Glassner and Keune (2010), short term solutions in regards to decreasing wages have been negotiated at different governmental levels throughout the previous decade. The collective bargaining mechanisms functioned but warnings arise towards long lasting effects on the health of public finance.

The concept of human capital engagement can be considered as a subsequent concept to employee satisfaction. Whereas satisfaction stands at a psychological level, engagement is a more outcome-driven indicator (Van Rooy et al., 2011). According to Matz-Costa et al. (2009) the last financial crisis led employees to a decrease in perceived job security, job quality and therefore to a decrease in job engagement.

3. DATA AND METHODOLOGY

The current section presents the construction of the selected indicators, followed by an analysis of the graphics that derive from the selected data.

The indicators chosen for the analysis consist of gross domestic product per hour worked, labour compensation per hour worked, labour productivity growth and hours worked. The variables originate from the OECD database and have been collected from 2005 to 2019 for Romania, Bulgaria and the EU27 average.

Gross domestic product per hour worked computes how effective labour input is used together with other factors of production such as technical factors, capital or even economies of scale. Due to the way it is constructed and calculated, this indicator only partially accounts

for the labour productivity of individuals. Nevertheless, one can assume that the human capital is the most sensitive factor to an external shock such as the financial crisis.

Labour compensation per hour worked is the percentual yearly change in the ratio between total compensation of employees over total hours worked by employees. When considering total compensation of employees, salaries as well as social security contributions paid by the employer are computed in national currency.

Labour productivity growth is measured as the ratio between output and labour. More precisely, this is calculated as growth in GDP per hour worked over the changes in the number of hours worked.

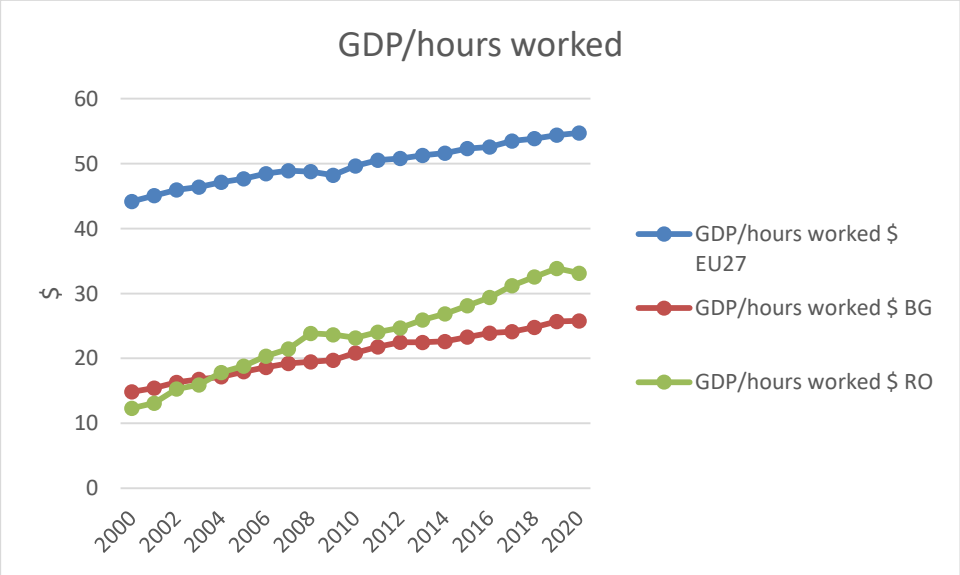

Fig. 1 – GDP/hours worked $

The hourly productivity of labour, measured in USD, is observed to have a steady increase starting with year 2000 for Romania, Bulgaria and the European Union as a whole. Having a starting value of 12.32$ for Romania in 2000, and of 14.86$ for Bulgaria in the same year, GDP/hours worked peaked in 2008 at around 20$, simultaneously with the start of the last financial crisis. From 2008 to 2010, the effect of the crisis can be observed in a decrease of GDP/hours worked for Romania and the EU27 and a stagnation for Bulgaria.

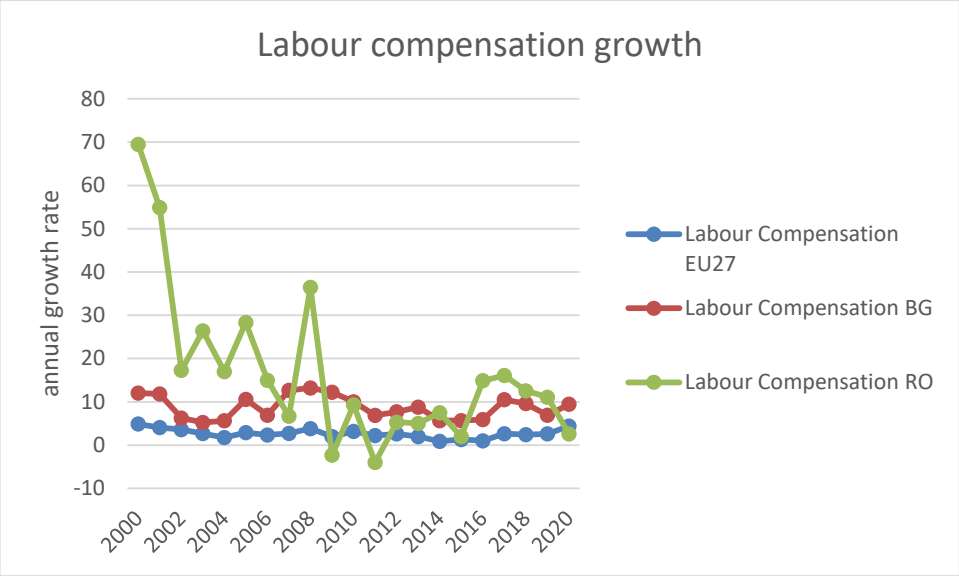

Fig. 2 – Labour compensation growth

Labour compensation growth is observed to have strong fluctuations in the case of Romania from 2000 to 2008. This effect can be attributed to a weak national currency until the accession to the European Union in 2007. Nevertheless, from 2007 until 2012 the human capital in Romania experienced not only lower growth rates, but also negative rates for labour compensation per hour worked. A possible explanation for this reduction in compensation can be attributed to the austerity measures which substantially diminished the income levels. For Bulgaria, the same indicator decreases from 2008 to 2011, whereas the EU27 average remains positive and has a steady evolution throughout the last 20 years.

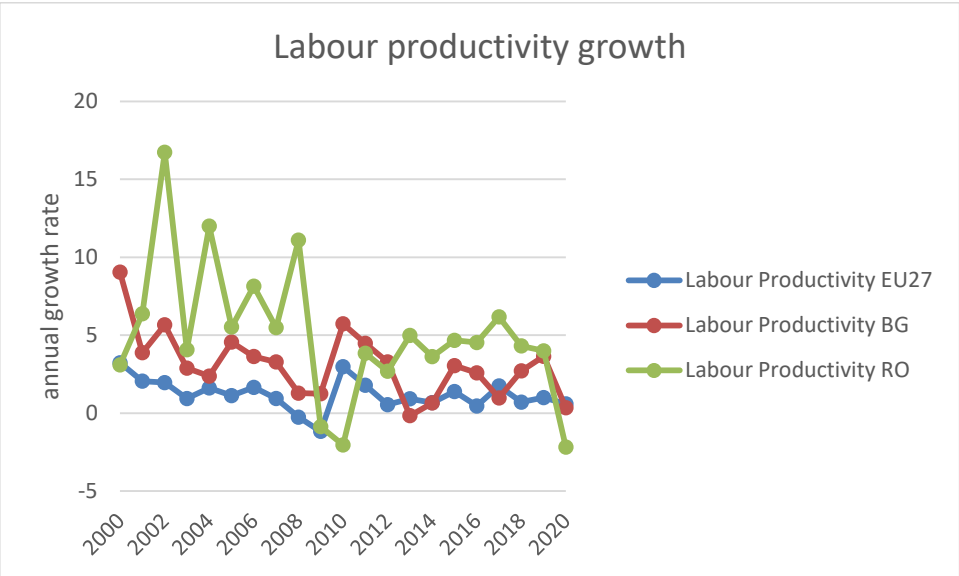

Fig. 3 – Labour productivity growth

The labour productivity growth follows similar trends to those of labour compensation growth. Nevertheless, the decreases in productivity are lower than the decreases in compensation over the period of the last financial crisis. The most acute change can be observed for Romania which from a labour productivity growth of 11.11 in 2008 reached a negative value of -2.04 in 2010.

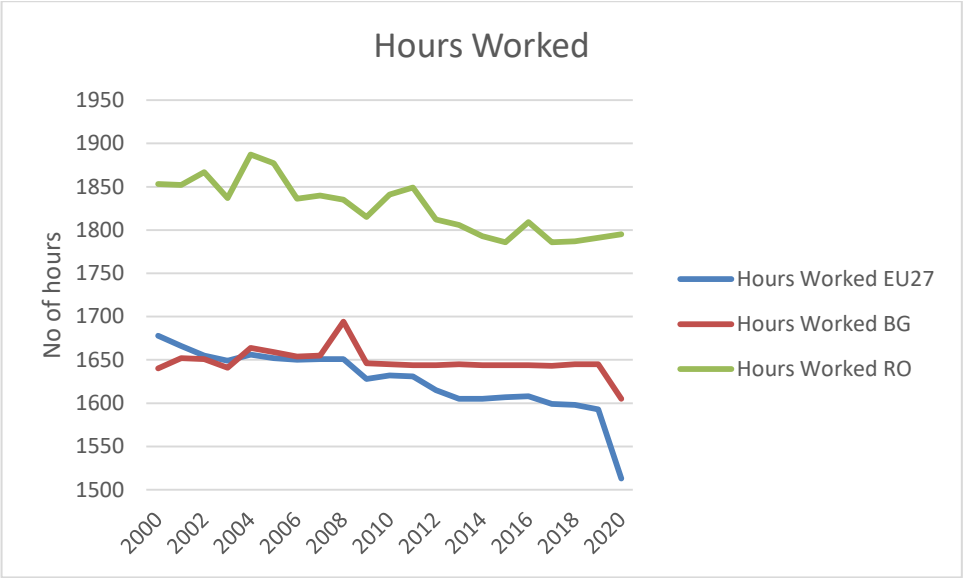

Fig. 4 – Hours Worked

In regards to the number of hours worked, a decrease in the total number of hours worked is observed for Romania, Bulgaria and EU27 from 2008 to 2009. Whereas the average of hours worked in a year is similar for Bulgaria and the EU27 at a value of approximately 1600, each employee in Romania works around 200 hours more per year, over the analysed period. The percentual decrease in hours worked from 2008 to 2009 is of 1.08% for Romania, 2.83% for Bulgaria and 1.39% for EU27.

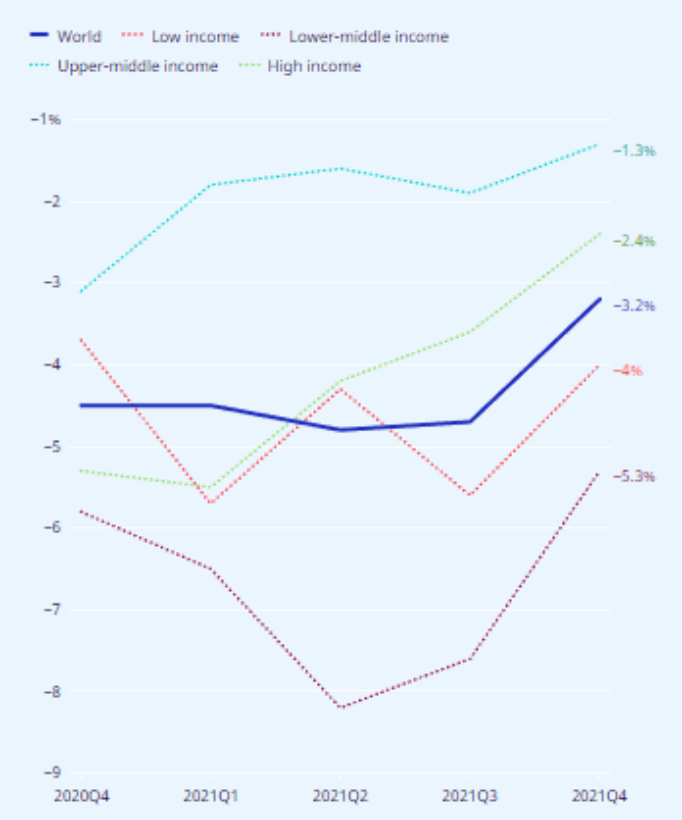

Fig. 5 Changes in hours worked relative to 2019 Q4, ILO data

According to the International Labour Organization, the current sanitary crisis has determined a decrease in hours worked for all income classes throughout 2020 and 2021 relative to 2019. The data provided by ILO suggest that the steepest decline in hours worked can be observed for the lower-middle income class at a value of 5.3%, whereas the least impacted category consists of the upper-middle income class with a decline of 1.3%.

According to Figure 5, the COVID19 pandemic has determined an overall decrease of 3.2% in hours worked. Simultaneously, consistent signs of recovery are present throughout all analysed income categories from the third quarter of 2021 onwards.

RESULTS

All selected indicators have been observed to have significant changes over the analyzed period. From 2000 to 2020, human capital is constantly increasing its productivity, working less hours and being compensated accordingly. Nevertheless, the levels of productivity and compensation registered declines from 2008 to 2009 for Romania and Bulgaria. These effects are apparently more severe in the two selected countries than in the European Union and it is

not surprising. The two selected countries can still be considered two developping economies with a labour force that does not have access to complex social benefit programms or strong unemployment laws, thus being more sensitive to any economic shock.

Overall, the impact of the financial crisis over human capital, irrespective of the chosen indicator, persisted only for a period of one to two years. The COVID19 pandemic can be observed to have affected human capital and labour markets for a similar period of one to two years.

CONCLUSIONS

The main challenges experienced by human capital during the previous financial crisis can be found in decreasing levels of productivity, compensation and hours worked. The perceived risks assimilated to a financial crisis such as job security, also led to a decrease in job engagement. Furthermore, when comparing the effects of the financial cris with the effects of the COVID19 pandemic, a decrease in hours worked is observed over a period of two years.

As data originating from OECD suggests, human capital in Romania and Bulgaria, two emerging economies, is severely more affected in a period of economic downturn in regards to productivity and compensation. These findings are consistent with the latest data from ILO, which highlights that the lower-income categories are the most vulnerable when confrunted with a crisis.

Having considered the above, policy makers should aim towards designing legislative packages with the scope of dampering the negative effects of a reduced productivity and compensation. At a company level, managers need to intervene through clearly structuring strategies for the future, thus offering employees a framework to which they should adhere in uncertain times.

Further research would be required in order to establish to which extent the core determinants of human capital, meaning the level of skills, education, training or mental health are subject to substantial changes during periods of crisis.

CONFLICTS OF INTEREST AND PLAGIARISM: The author declares no conflict of interest and plagiarism.

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