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Analysing the fiscal impact on general well-being in the CEE states

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Abstract. *The study explores the design process of a fiscal system and highlights its impact on the overall welfare of society in the six European Union countries located in Central and Eastern Europe (CEE). The main objective is to understand the interaction between fiscal policy and the macroeconomic indicators and to study the impact of taxes on the quality of life and social well-being. The research methodology entails a descriptive and comparative analysis of statistical data spanning a 16-year period, from 2005 to 2020, marking the onset of the Covid-19 pandemic. The findings indicate that VAT is the primary source of fiscal revenue in CEE, with an average fiscal burden of over 7% of GDP. The research found that there are complex interdependencies between the fiscal system and the general welfare of society. For example, income taxes are associated with slow economic growth, and social contributions can influence employment rates. Romania is in a less favorable situation compared to other countries in the region, but still, a general trend of increasing human development and poverty reduction is observed. Additionally, it was found that international migration and perceptions of corruption can influence fiscal policy and general well-being. The research results emphasize the need for a balanced fiscal policy to support social and economic progress.*
Keywords: *Fiscal policy; Economic growth; Human development; Well-being*
JEL classification: *E60; H20; I31*

1. Introduction

The structure of a fiscal system is shaped by various factors and differs widely from one country to another. However, most studies on taxation have not centred on examining the overall welfare of society to emphasize how fiscal policy affects the social aspects of a nation, specifically the well-being of its population. Upon reviewing the specialized literature related to this complex subject with multiple interdependencies between mandatory taxes and the economy, it was noted that, within the European Union, including Romania, studies have addressed some aspects of this topic. Yet, these studies have not comprehensively tackled the interconnections between the tax system and macroeconomic indicators that could highlight general well-being (Cristea, 2019). Therefore, further research is needed in this niche, particularly focusing on the CEE states, including Romania, Hungary,

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and Poland as emerging economies, and the Czech Republic, Slovenia, and Slovakia as developed economies.

This paper analyses the evolution of key macroeconomic indicators to illustrate society's economic, social, and political progress. These indicators complement gross domestic product (GDP), which, while central to measuring a country's economy, does not alone provide qualitative insights into society's general welfare. This is especially true when considering taxation's impact on the economy (Chitoiu, 2024). Exploring how fiscal policies interact with overall well-being is particularly valuable, as it could facilitate the delivery of high-quality public services that address individual welfare needs. This perspective is supported by research from Kozilek et al. (2017), which found that people are more concerned with their well-being, derived from various factors like the goods and services they consume, than with GDP growth alone.

As noted by Cristea et al. (2021a), general well-being encompasses both subjective and objective aspects within a society, reflecting the population's satisfaction with the economic, social, and political facets of life. This holistic view offers policymakers a better understanding of the nation's broader status, emphasizing sustainable development and a high quality of life. Additionally, Cristea et al. (2021b) highlight that establishing an effective fiscal system involves developing a sustainable fiscal culture to increase government revenues and strengthen the relationship between the state and its citizens to enhance overall well-being. Consequently, a society's well-being serves as a critical indicator of its economic, political, and social performance.

Taking these factors into account, the overall well-being of the population is closely connected to the objectives of economic growth and human capital development, making it a particularly pertinent subject. However, it remains essential to account for quantitative indicators of economic growth, as they hold undeniable significance, requiring nations to pursue policies that bolster the economy. Furthermore, qualitative indicators specific to development and well-being are equally necessary. Ivković (2016) supports this perspective, suggesting that the global society needs a new framework for guiding genuine progress, moving beyond simply equating economic growth with overall progress, as no universal progress indicator currently exists that encompasses both prosperity and well-being.

2. Literature review

This section examines the current body of literature related to the interdependence between taxation, well-being, economic growth, and development. A thorough review of the literature revealed significant correlations between fiscal policy and these interconnected areas, which are crucial for the development of an effective economic policy. Fundamental research in this area considers how tax systems can be structured to promote equitable income distribution, sustainable economic growth and strong socio-economic development. Next, to gain a clearer understanding of the existing interdependencies, the analysis of specialized literature first examined the connections between welfare and taxation, followed by the relationships between economic growth and taxation, the links between development and taxation, and finally the interplay among all these elements.

• ***The relationship between taxation and welfare***

Over the years, it has been discovered that taxation directly impacts the overall well-being of society through income redistribution and the financing of essential public goods and services, such as education, healthcare, and infrastructure. In their seminal lecture on public economics, Atkinson and Stiglitz (2015) laid the groundwork for understanding how progressive taxation can contribute to equal opportunity and reduce income disparities. They demonstrated that progressive taxation could more efficiently redistribute resources and ensure adequate funding for public services. Piketty and Saez (2013) further explored this theme, illustrating that progressive taxation and redistributive policies are crucial for reducing economic and social inequality and promoting general well-being. A study

conducted more recently (Balestra and Tonkin, 2018) examines how fiscal policy affects inequality and well-being across different regions of the world. They emphasize the importance of progressive taxation and social transfers in reducing inequality and improving general welfare. By reallocating resources to those in need, progressive taxation counteracts the excessive accumulation of wealth by a small segment of the population, contributing to a more equitable society and, ultimately, a richer and healthier economy.

These findings demonstrate the importance of a properly designed fiscal framework adapted to the needs and characteristics of each country to maximize social and economic welfare. This is an important aspect of political economy and public policymaking and suggests that each state must continually review and adapt its fiscal policies to best serve the specific challenges and needs of its citizens.

● ***Economic growth and taxation***

Over time, studies examining the connection between taxation and economic growth have shown that the relationship is complex and multidimensional. Barro (1990) concluded that government investment in infrastructure and education can stimulate economic growth, while excessive taxation can inhibit innovation and productivity. After 20 years, Romer and Romer (2010), in their study, using an innovative method to measure fiscal shocks, analyzed the impact of tax changes on economic growth, also demonstrating that tax cuts can stimulate economic activity in the short term, with variable long-term effects, depending on the financing method. These studies suggest that fiscal policy must be balanced, ensuring the necessary resources for public investment without discouraging economic activity. Also, Diamond and Saez (2011) provide valuable insight into how progressive taxation can serve not only as a redistributive tool, but also as an incentive for growth by minimizing economic inequalities that can inhibit overall economic potential. On the other hand, the study by Mertens and Ravn (2019), analyses the dynamic effects of fiscal changes on the American economy, showing the complexity of the short- and long-term impact of fiscal policies and emphasizing that the effects depend on the economic context and the specific fiscal structure. Another significant study by Musibau et al. (2024) shows that fiscal policy, especially tax revenue, has a considerable adverse effect on income inequality and contributes to reducing inequality by redistributing income from high-income to low-income. Economic growth and urban population also have a significant impact on income inequality. This study highlights the importance of well-designed fiscal policies and the need to consider various factors such as economic growth, social spending and institutional quality to effectively reduce income inequality.

These findings demonstrate that effective fiscal policy must balance the need for government revenue to finance essential public services with the need to promote strong and equitable economic growth. Therefore, fiscal policy adjustments must be based on detailed research and tailored to the specific circumstances of each economy.

● ***The relationship between development and taxation***

Taxation plays an essential role in promoting socio-economic development, having a direct impact on critical sectors such as education, health, and infrastructure development. Bird and Zolt (2008), point out that the introduction of technology in tax systems in developing countries can significantly improve the efficiency and transparency of tax administration. This study shows that the use of advanced technology helps to reduce corruption and increase tax revenue. However, success depends on adapting the technology to local conditions and building the necessary infrastructure. The authors recommend strong government efforts to achieve this technological transformation. A well-designed tax system can generate the financial resources needed to invest in education and health, which are essential for long-term development. In line with this statement is the study carried out by Younsi and Bechtini (2023), in which the authors emphasize that government spending and tax revenues are essential for the efficient financing of health systems in developing countries, thus

contributing to improving access to medical services and increasing their quality. Also, Lynch (2020) highlights the importance of investing in education for equitable growth. In his opinion, public expenditure in education, which is financed by fiscal revenues, obtained from fees and taxes, is essential for the development of educational infrastructure and for increasing access and quality of education. In line with these conclusions is also the study carried out by Gurdal et al. (2021), because they believe that the allocation of tax revenues to education can lead to a better trained and more productive workforce, which is crucial for innovation and development. Therefore, we believe that investments in health and education can contribute positively to the development of human capital, which in turn leads to the stimulation of economic growth.

These studies emphasize that fiscal policy should not be universal, but should be adapted to the characteristics of each economy, so as to support education, health and infrastructure, respectively human development. Effective tax systems can thus stimulate and promote general well-being, having a positive impact on sustainable and equitable socio-economic development.

- ***The interconnections between taxation-economic growth-welfare***

The literature contains numerous studies that explore the interconnections between taxation, social welfare, human development and economic growth, each bringing valuable insight into how fiscal policies can influence various aspects of society.

For example, the research of Barr (2001) provides insight into how tax and welfare systems work together to support both economic growth and human development. Barr argues that a state with high welfare can function as a "piggy bank" that invests in human capital and provides social protection, thereby contributing to economic and social stability. Also, the studies conducted by Ostry et al. (2014) at the IMF found that an efficient financial system can promote economic growth through moderate redistribution, despite the potential to slow or hinder growth. They have shown that redistributive policies that reduce inequality can support more sustainable and inclusive economic growth.

Another relevant study is conducted by Arnold (2008), who investigates the effects of various types of taxes on economic growth in OECD countries, showing that income and consumption taxation have different effects on economic growth in the long run. Dasgupta et al. (2018) extensively discusses the connections between economic policies, human development and well-being. The authors argue that for economic growth to be truly beneficial, it must be inclusive and lead to improvements in human development and well-being. They emphasize the need to create policies that not only stimulate economic growth, but also ensure that such growth translates into increased human well-being. Furthermore, they suggest that by understanding the interconnections between economic growth, human development and well-being, policymakers can better design strategies that promote long-term sustainability and equity.

Thus, these studies build a complex picture of how fiscal policies can shape not only the economy, but also social structure and the environment, providing a valuable framework for political decision-makers in formulating development strategies.

This literature review highlights that, despite different approaches and theories, well-designed fiscal policies are essential to foster prosperity, stimulate economic growth and support socio-economic development. Therefore, the next section provides a descriptive analysis of the key multidimensional indicators of socio-economic progress in CEE countries.

3. Methodology

To fulfill the research goal of identifying the key macroeconomic indicators related to well-being, growth, and human capital development in relation to taxes and mandatory contributions, this study's research methodology encompassed several stages. The first stage involved a comprehensive

analysis of the specialized literature on economic growth, development, and societal well-being concerning fiscal policy. This analysis entailed identifying the principal theories and studies in the field, understanding the fundamental concepts, and exploring the relationships between macroeconomic indicators and fiscal policy. By reviewing the literature, namely Addison et al. (2018), Keen and Slemrod (2017), Kizilkaya et al. (2015) and Besley and Persson (2013), the essential macroeconomic indicators for assessing economic growth, development, and societal well-being in the context of fiscal policy were determined. After identifying the relevant macroeconomic indicators, a database was created to compile the necessary data for analyzing these indicators in relation to taxes and social contributions across 6 CEE member states within the European Union. This analysis involved comparing the trends of indicators across countries, uncovering potential causal relationships between fiscal policies and economic performance, and evaluating the effects of fiscal policies on economic growth, development, and overall well-being in each nation. Therefore, through this quantitative and descriptive research methodology, we aimed to highlight the relationship between selected macroeconomic indicators, fiscal policy, and well-being, growth, and economic development within the context of CEE states. This integrated approach allowed us to better analyses the factors influencing these processes and identify possible policies that could be implemented to improve welfare and development in these states. Also, this research aims to test the following hypotheses:

- H1: Direct taxation, as opposed to indirect taxation, is positively correlated with improved general welfare indicators in CEE countries.
- H2: Progressive taxation systems contribute toward a fairer distribution of income and, consequently, to an increased level of general welfare.
- H3: Exists an inverse correlation between tax burden and economic growth rates in CEE countries.
- H4: Investments in education and healthcare, funded by tax revenues, positively influence the Human Development Index (HDI) and happiness levels in CEE countries.
- H5: A well-balanced fiscal policy, combining both direct and indirect taxes, correlates with sustainable economic growth and enhanced social welfare in CEE countries.
- H6: CEE countries with higher government efficiency and lower perceived corruption also exhibit stronger indicators of economic growth and well-being.
- H7: In countries with high emigration rates, taxation and social security contributions impact governments' ability to sustain social services, thereby affecting general welfare.

Each of these hypotheses connects various aspects of fiscal policy, economic growth, social welfare, human development, governance, and demographic trends, providing a comprehensive framework for understanding the complex interdependencies within the context of CEE countries.

4. Research results and discussions

To achieve the research objective of identifying key macroeconomic indicators for measuring well-being, economic growth, and human capital development in relation to taxation and social security contributions, the indicators were systematically categorized into six groups. These include fiscal, economic, development-specific, labor market, demographic, and political indicators. Analyzing these categories is crucial for understanding the socio-economic dynamics of CEE countries.

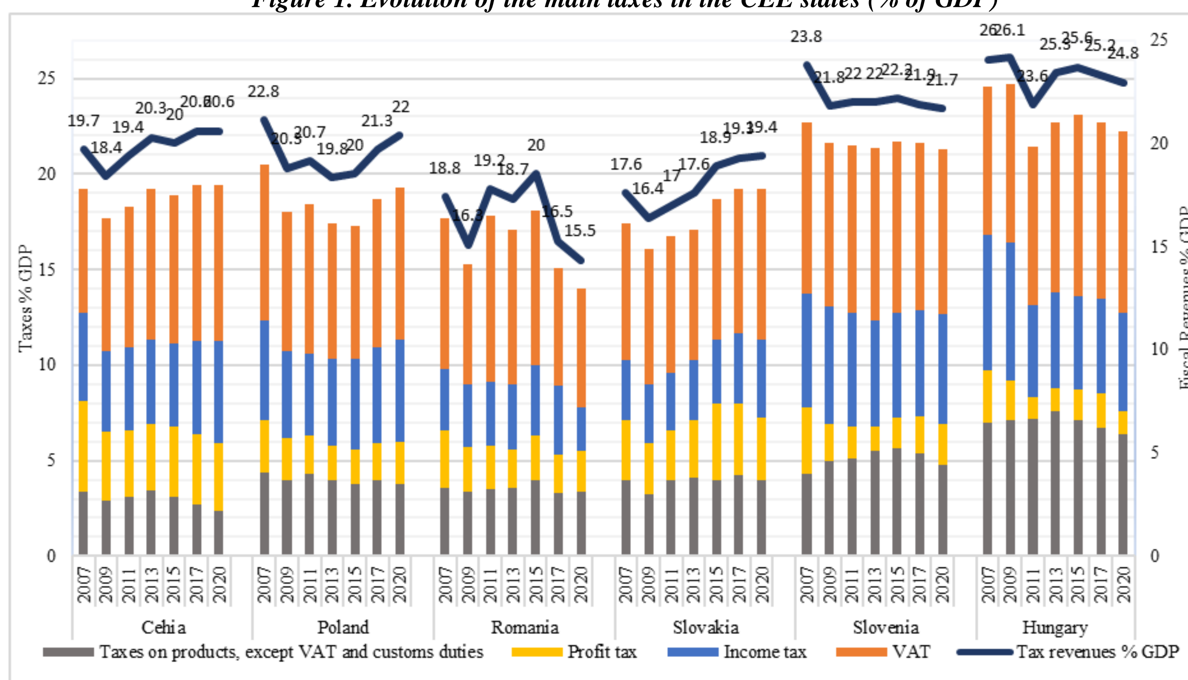
This study focuses on examining the evolution of major taxes and social contributions and their impact on GDP and the overall well-being of the population during the period 2005–2020. The chosen timeframe is sufficiently extensive to capture meaningful trends while excluding more recent years characterized by extraordinary events, such as the COVID-19 pandemic, which introduced

unprecedented factors requiring separate analysis to avoid skewing the results. The research utilizes statistical data sourced from Eurostat, processed using Excel spreadsheets. This multidimensional approach enables a comprehensive assessment of how taxation influences economic growth, income distribution, and social welfare, thereby providing a robust foundation for the development of effective public policies.

➢ **Fiscal indicators**

The fiscal indicators include the primary indirect and direct taxes, as well as social security contributions, for the CEE member states. Figure 1 illustrates the trends in the most significant types of taxes over the analysed period. According to the graph, value-added tax (VAT) serves as the primary source of fiscal revenue across all 6 countries, followed by income tax, taxes on products other than VAT and customs duties, and then corporate income and profit tax.

Figure 1. Evolution of the main taxes in the CEE states (% of GDP)



Source: the author's processing, through the Excel spreadsheet, based Eurostat data.

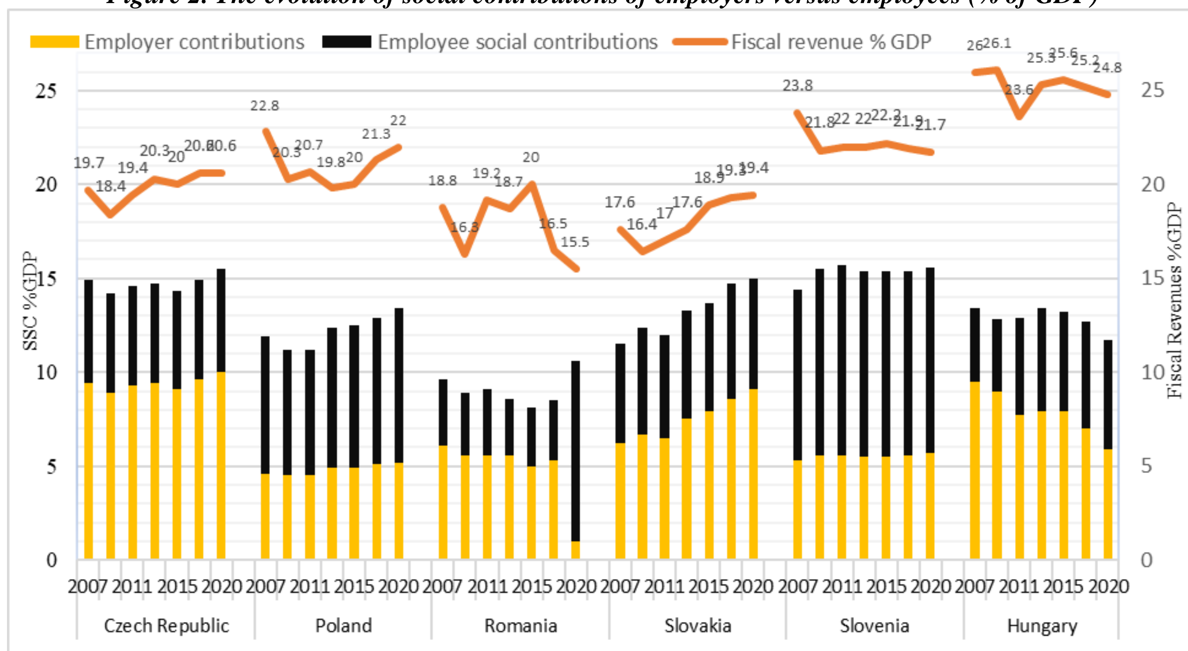
This examination of tax indicators within CEE countries offers a comprehensive overview of the fiscal structure and the economic implications of various tax types. By calculating the average burden exerted by the four categories of taxes, in the analyzed period, it is observed that, in all countries, the value added tax exceeds 7% of the GDP, followed by the income tax, with a weight of 3.1% in Romania, 3.2% in Slovakia and over 4.5% in the other four countries, reflecting a more favorable fiscal climate for personal growth and stimulating employment. Income taxes, while having lower rates compared to VAT, vary significantly between countries, indicating different approaches to fiscal policies and economic priorities. In terms of corporate tax, the lowest fiscal burden is exerted in Hungary at 1.6% and Slovenia at 1.8%, and the highest burden is found in Poland at 3.5%. VAT holds a prominent position in the fiscal revenues of the analysed countries, representing the largest contribution to GDP among all tax categories, and is often considered an efficient revenue-generating tool, affecting economic growth less than income taxes. Corporate tax, with fiscal burdens varying significantly between countries, such as the lowest rates in Hungary and Slovenia and the highest in

Poland, shows how tax policies can influence the investment behavior of companies. Hungary and Slovenia, with lower corporate tax rates, can aim to attract investment and stimulate economic activity.

According to the studies undertaken in the specialized literature, it was discovered that income taxes are associated with slow economic growth compared to consumption taxes and are associated with higher levels of subjective well-being compared to indirect taxes such as value added tax (Grimes et al., 2016). This fact aligns with economic theories that suggest that consumption taxes are less distortive of economic decisions than income taxes. Thus, consumption taxes, although more economically efficient and less decision-distorting, may affect people's perceived welfare in a different way than income taxes, which are directly related to earnings.

In Figure 2, the second category of compulsory taxes is presented, after fiscal revenues, which brings a large proportion of resources to the state income, but also to the gross domestic product, are the social security contributions (SSC). Regarding the evolution of the contributions of employers and employees, it can be observed that in emerging countries they have a lower share in GDP than in developed countries. This may reflect a reduction in the economic base and affect the ability to finance social services. Comparing the average burden exerted by them during the highlighted period, it is observed that in the Slovakia, Czech Republic and Hungary the contributions related to employers have a higher tax burden compared to that related to employees, respectively of 9.3%, 7.8% and 7, 5%. This phenomenon can be explained by fiscal policies that impose higher burdens on employers, perhaps to promote corporate social responsibility and reduce the direct tax burden on employees.

Figure 2. The evolution of social contributions of employers versus employees (% of GDP)



Source: the author's processing, through the Excel spreadsheet, based on Eurostat data.

In contrast, employee contributions are proportionally higher in Slovenia and Poland, 9.8% and 7.4% respectively. This may indicate a policy of redistributing economic responsibility to workers, perhaps to encourage greater awareness and personal contribution to the social security system. In the case of Romania, the weight of contributions from both employers and employees, during the analyzed period, is at relatively equal rates of 4.8% and 4.17%, respectively. However, the changes brought by the law implemented in 2018 indicate a tendency to increase employee contributions, demonstrating an effort to stabilize the state budget amid economic challenges.

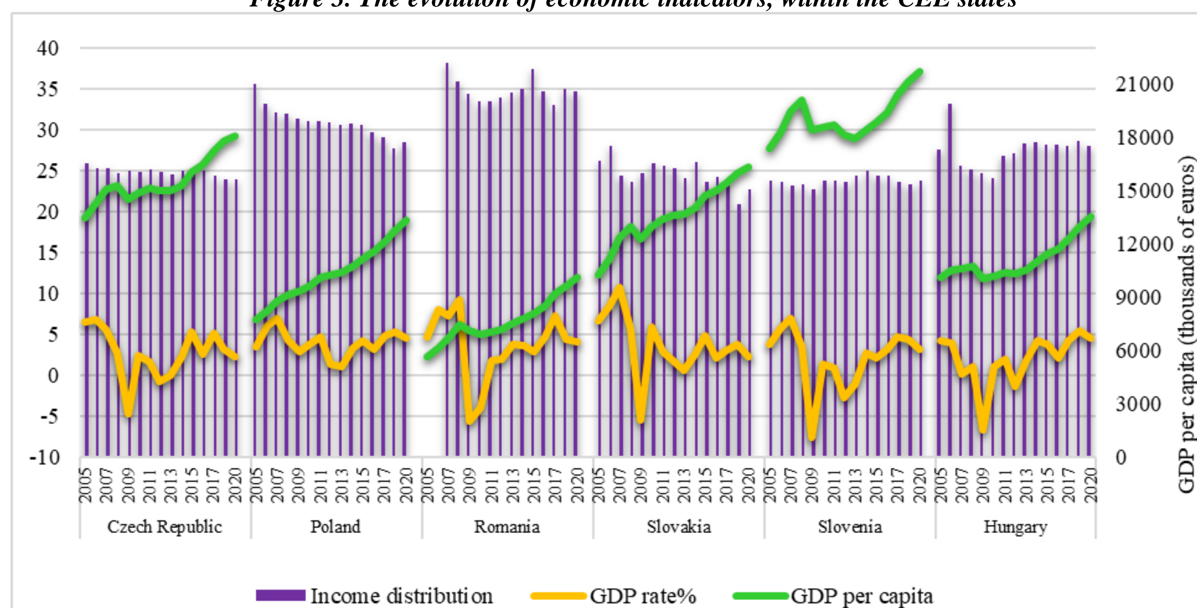
Over time, increases in revenue through personal income taxes or social contributions have been shown to negatively impact long-term GDP per capita growth rates (McNabb, 2018). Consequently, developed CEE nations have grown more cognizant that a heavy taxation load on labour, combined with its interplay with benefit systems, can undermine work incentives, especially for those with lower earning capacities. In response, these countries have implemented more employment-friendly labor taxation policies. Measures include the adoption of progressive taxation systems, as seen in Slovakia, Slovenia, Czech Republic, and Poland, alongside reducing employee contribution rates. These adjustments aim to strike a balance between meeting budgetary revenue requirements and fostering economic growth through more effective fiscal policy design.

➢ **Economic indicators**

Among the economic indicators, the analysis will consider the trends in GDP per capita, income distribution, and the annual GDP growth rate. According to Martorano (2018), the composition and type of taxes influence income distribution and found that the more the contribution of direct taxes to the total income of the state increases, in relation to indirect taxes, the more fiscal systems of developed states resort to progressive taxation, which in turn has positive effects in terms of reducing income inequality. The use of GDP per capita, in relation to the other two indicators, is also justified by Stiglitz et al. (2010), who considered that this indicator does not represent a measure of the quality of life, but a way to improve it, if it is studied in relation to economic growth and income distribution.

Starting from these ideas, within Figure 3, the situation of economic variables is presented, which can influence or can in turn be influenced by the fiscal systems adopted within the studied countries. The figure provided an analysis of the evolution of the Gini coefficient, which serves as an indicator of income inequality, with higher values reflecting greater disparities in income distribution. This analysis considered its relationship with the annual rate of change in GDP and the GDP per capita. Among the six states included in the study, it was observed that the emerging economies consistently displayed the highest Gini coefficient values, highlighting more pronounced income inequality compared to their developed counterparts.

Figure 3. The evolution of economic indicators, within the CEE states



Source: the author's processing, through the Excel spreadsheet, based on Eurostat data

In Romania, the relatively high fluctuation of the Gini coefficient values indicates the persistence of inequality in income distribution, which ranges from a peak of 38.3% in 2007 to a low of 33.1% in 2017. This suggests that, despite improvements, inequality remains a major problem. The Gini coefficient exceeds the European Union average, highlighting the challenges facing Romania when trying to reduce economic inequality. In comparison, the situation in Poland shows remarkable progress. The continuous decline in the Gini coefficient from 2007 to the end of the analyzed period reflects improvements in income distribution, reaching 28.5 in the last year under review, from 35.6 in 2007. This downward trend could be the result of effective fiscal and economic redistribution policies that reduce inequality and promote more inclusive economic growth. The analysis of these variables in the context of monetary policy is of great importance because it directly shows the impact of different financial structures on economic inequality. Progressive taxation, as is common in other developed countries, may be a solution to reducing inequality, suggesting that fiscal policy adjustments can have a significant impact on income distribution.

Observations on the Gini coefficient in Hungary and the three developed countries of CEE indicate a relatively low level of inequality in income distribution, compared to the European Union average, specifically, the values are 22.8 in Slovakia, 23.9 in Slovenia, 24 in the Czechia and 28 in Hungary. The lower Gini coefficient values in these countries indicate a more equitable income distribution, which can be partly explained by the fiscal policies and economic strategies they have implemented. According to the situation presented, it was observed that the GDP per capita has been increasing in all the years analyzed, as well as the rate of change of GDP, after the economic crisis of 2010 and marks a period of robust economic recovery for these countries. The rate of change in GDP indicates strong economic performance, with these economies bouncing back and growing consistently in the aftermath of the 2008-2010 crisis. Their experience demonstrates that it's possible to achieve growth while maintaining relatively low levels of income inequality, a notable contrast to some other EU countries with higher inequality levels.

- **Human development indicators**

Among the development-specific indicators, those that measure the objective well-being of societies will be considered. These include the Human Development Index (HDI), the Happy Life Index, the risk of poverty, and the educational attainment of the population, categorized into levels 0–2 (early, primary, and secondary education) and levels 5–8 (higher education).

The importance of these indicators derives from the idea that human capital is the main factor that stimulates the economy, strengthens the global competitiveness of states and promotes their socio-economic progress, and to achieve these goals, the improvement of human capital depends on the level of education, as well as on general progress of the country (Londar et al., 2020).

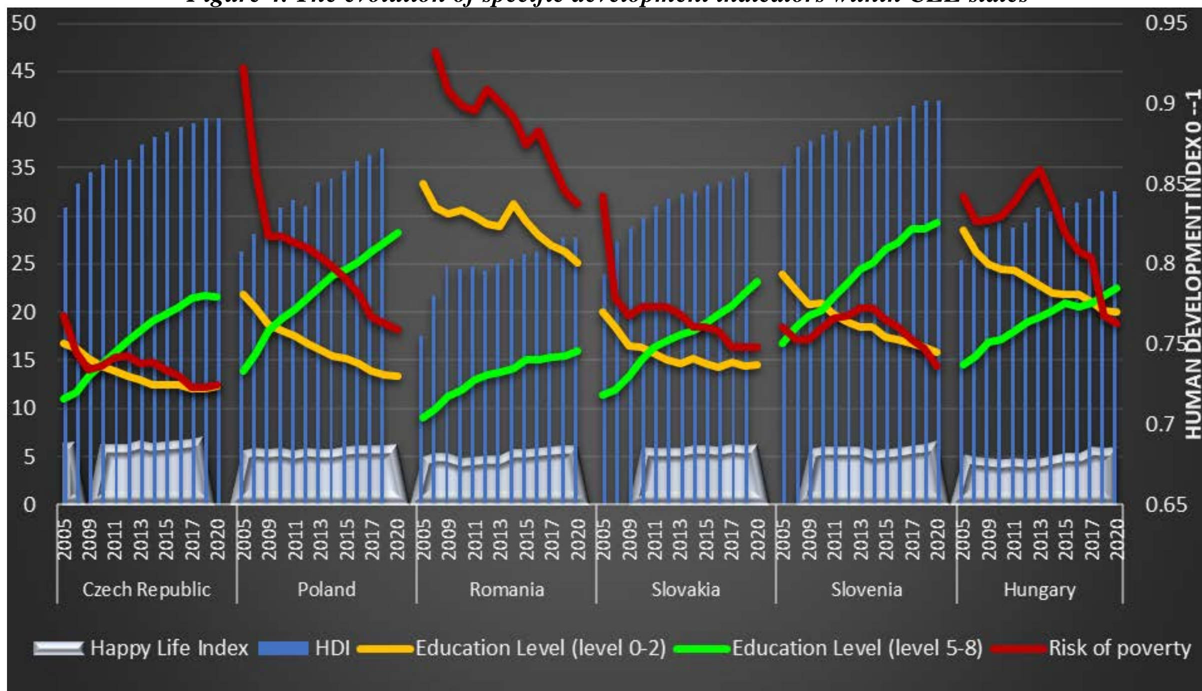
Analysis from Figure 4 highlights some interesting aspects of well-being and development in CEE countries. The comparison between developed and emerging countries shows an advantage of the former in terms of the happiness scale. The happiness scale shows a range of values for the CEE countries, with Hungary scoring the lowest at 5.2 and the Czech Republic scoring the highest at 6.5. Other countries like Romania (5.5), Poland (5.9), Slovenia (6.0), and Slovakia (6.1) are positioned between these extremes. While developed countries in the CEE region (like the Czech Republic and Slovenia) tend to score higher on the happiness scale, the differences between these and the emerging economies (e.g., Romania and Hungary) are relatively small. This suggests that, although economic factors contribute to happiness, they may not be the sole determinants. Policymakers in these countries should thus consider a holistic approach to development, focusing on both economic and non-economic factors to improve well-being across all segments of society.

If we consider the level of education, again, the most problematic situations are in Romania, where the proportion of individuals with a primary level of education, despite showing a downward

trend, continues to be the highest among the CEE nations, over 25% of the total population being in this situation. Romania is followed by Hungary, with a value of 20%, and in contrast, the percentage of the population with basic level of education is under 15% in the other four countries. Regarding the level of higher education, it is increasing in all countries, the highest shares being in Slovenia with almost 30% of the population, Poland with 28.2%, Slovakia 23%, Hungary 22.5%, the Czech Republic 21 % and Romania with the lowest share, respectively 16% of the total population.

Analysis of education levels shows significant variation between CEE countries, with Slovenia and Poland leading the way in terms of higher education, while Romania has the highest percentage of people with a primary level of education. This disparity could have long-term economic and social implications, and targeted educational reforms will be crucial for countries like Romania and Hungary to improve their competitive standing in the region. The level of education directly impacts a country's economic potential, particularly in industries requiring high-skilled labour. Countries with a greater proportion of higher education graduates, like Slovenia and Poland, may find it easier to transition to knowledge-based economies, attract foreign investments, and increase productivity.

Figure 4. The evolution of specific development indicators within CEE states



Source: the author's processing, through the Excel spreadsheet, based on the statistical data provided by Eurostat, Human Development Report and Global Happiness Report.

Concerning the poverty risk, expressed as a percentage of the total population, this indicator has been in continuous decline from 2005 until the last year analyzed, but with the highest values in Romania. The persistence of high poverty rates in Romania may suggest deeper structural issues in its economy and social policies, such as disparities in income distribution, employment opportunities, and access to social safety nets. The largest decrease of risk of poverty is in Poland, Slovakia and Hungary, where the policymakers should continue their efforts to reduce poverty, with a focus on maintaining inclusive growth and expanding social services. Regarding Czech Republic and Slovenia, these countries appear to have lower and more stable levels of poverty risk, indicating that their social and economic policies have been consistently effective.

The last indicator presented in this figure refers to HDI, where values closer to 1 indicate a higher level of development. The Human Development Index is crucial in assessing a country's overall progress. The increase in this index in all CEE countries is encouraging, indicating improvements in the quality of life and opportunities for their citizens. By making a ranking of the observed developments, Romania is in last place among the six states. Romania's position suggests that it needs to address several structural issues, including improving access to education, reducing poverty, and ensuring more equitable growth across both urban and rural areas. These issues highlight the unfavorable climate for well-being, while Poland's emergence as a regional leader reflects its successful transition from an emerging economy to a more developed state. Countries like Slovenia and the Czech Republic serve as examples of sustained development, while Hungary and Slovakia show steady progress but still face areas for improvement. In conclusion, it is essential to take all these factors into account to gain a comprehensive understanding of the development of CEE countries. This not only reflects the current situation but also provides indications of development directions and areas that require increased attention in the future.

- **Labor market indicators**

Within the labor market indicators, the unemployment rate is evaluated against the employment rate and the hidden economy, within emerging and developed countries. The data on the underground economy were taken from studies by Medina and Schneider (2018, 2019 and 2021), who measured this phenomenon as a percentage of the GDP. Schneider and Buehn (2012) argue that the hidden sector of the economy comprises the size of the underground economy as well as that of tax evasion, which although not similar, are intertwined. Underground economy activities often involve direct or indirect tax evasion, so factors that support tax evasion will directly support the underground economy.

Figure 5 illustrates the trends in labor market-specific indicators in relation to the shadow economy across the analyzed countries. An inverse correlation between the employment rate and the unemployment rate is observed, indicating that during economic downturns, unemployment increases as formal employment opportunities decline. The developed states were the most affected by elevated unemployment rates and reduced labor force participation, which underwent the most significant changes during the 2008–2009 period. However, these nations managed to recover to pre-crisis levels or even improve upon them, suggesting that the government policies implemented in response to the economic crisis were effective.

It is obvious that the downward trend in the unemployment rate, in all the countries under study, stopped in 2008 and reversed in 2009-2010, when the period of economic recession began, a downward trend which then returned and continues until 2020. This suggests that the countries under study were able to maintain a stable economic recovery throughout the following decade, with continuous improvements in employment and participation rates. However, the COVID-19 pandemic, which began in 2020, likely introduced new challenges, potentially reversing some of these gains temporarily. Although this is outside the scope of the analyzed period, it's worth noting that the economic and labor market disruptions caused by the pandemic may have similar effects to those experienced during the 2008-2009 financial crisis.

The hidden economy, often linked to tax evasion and unofficial activities, is a significant problem in some of the countries analyzed. For example, it is observed that the largest share of the hidden economy is in Romania, decreasing from 30.49% of GDP in 2007 to 22.9% in 2015. In contrast, Czechia and Slovakia show the lowest rates of the hidden economy, about 11% in 2015. Hungary and Slovenia show similar levels, around 20% of GDP, and Poland shows a downward trend of the hidden economy in parallel with the decrease in unemployment, which contributes to its classification among the states developed, due to the characteristics discovered throughout the present descriptive analysis of the statistical data.

Figure 5. The trends in labor market indicators within CEE countries

Source: the author's processing, through the Excel spreadsheet-based Eurostat data and by Medina and Schneider (2018, 2019 and 2021).

These trends provide insights into the effectiveness of each country's economic policies and the challenges they face in tackling informal activities. Addressing the hidden economy through tax reforms, labor market improvements, and institutional strengthening is crucial for ensuring sustainable development and increasing public revenues in these countries. Also, the descriptive results are in line with the literature, according to which the changes and fluctuations of the hidden economy are closely related to both employment and unemployment rates, Schneider and Enste (2000) and Buehn and Schneider (2012) arguing that strict regulations and excessive taxation can push economic activities towards the informal sector.

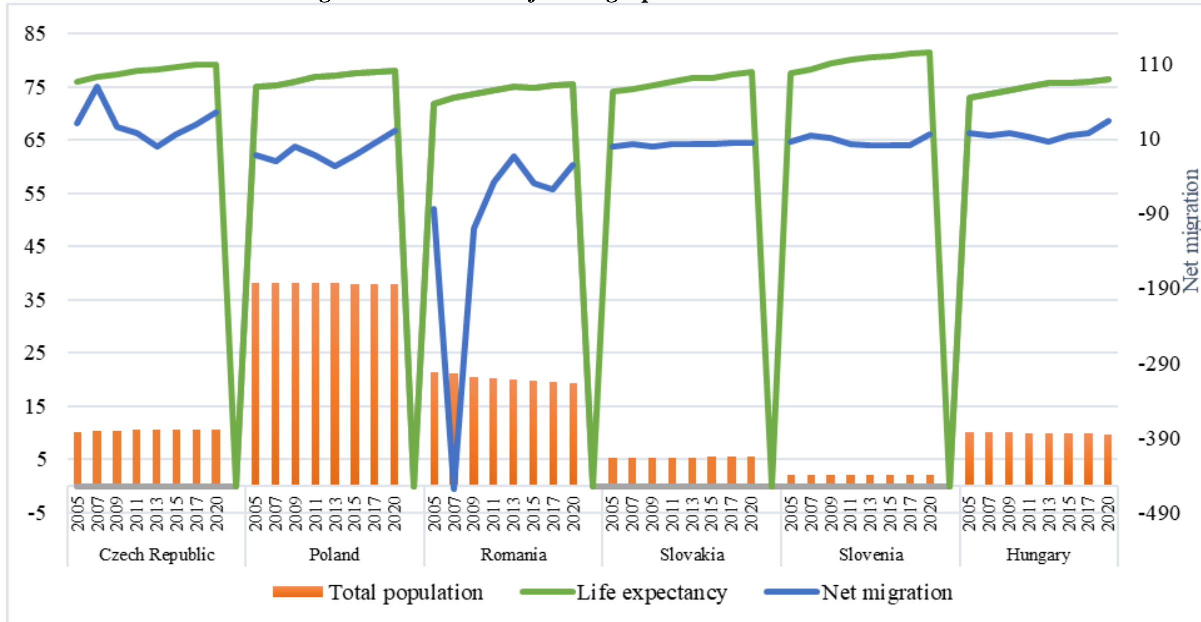
➢ **Demographic indicators**

The demographic indicators will focus on analyzing the trends in total population alongside life expectancy and net migration in the selected CEE countries. Migration, as a demographic phenomenon, has deep historical roots and exerts significant influence on various aspects of society, including the standard of living, employment rates, economic development, and the fiscal balance of both host and origin countries (Cristea and Grabara, 2019). Over recent decades, this phenomenon has intensified, driven by socio-economic, fiscal, and population-related transformations and disparities. Given the persistent challenges and imbalances faced by European Union member states, migration is expected to remain a significant factor shaping demographic and socio-economic dynamics in the foreseeable future.

Figure 6 shows net migration, compared to the total population and life expectancy. In emerging countries such as Poland, Romania and Hungary, the population is significantly higher compared to developed countries. It can be seen that the emerging countries have a larger number of the total population, namely 37.9 million Poland; 19.4 million Romania and 9.7 million Hungary, compared to developed countries, whose population is 10.6 million in the Czech Republic; 5.4 million Slovakia and 2 million Slovenia. Looking at the evolution of life expectancy, it is increasing in all these countries, being higher in developed countries, possibly due to more efficient health systems and a higher standard of living. In terms of net migration, Romania has the most drastic change, and the

years following the economic crisis, but also following EU accession, were marked by a significantly higher number of emigrants than immigrants. This reflects not only the demographic structure, but also migration trends that can influence both population growth and life expectancy.

Figure 6. Evolution of demographic indicators in CEE states



Source: the author's processing, through the Excel spreadsheet, based on Eurostat database.

We believe that the surplus of emigrants from low economy EU countries to developed member states has been significantly influenced by the EU's policy of free movement, which facilitates migration by enabling citizens to access the labor markets of more economically advanced nations. This policy impacts emigration decisions both for individuals in developing countries seeking better opportunities and for employers in host countries who benefit from a larger pool of workers. Simionescu (2016) analyzed the factors that are driving permanent emigration from Romania and identified low wages and widespread poverty as the primary determinants compelling individuals to leave their origin country. Additionally, income taxes were found to play a secondary yet substantial role, adding an economic burden that further influences the decision to emigrate permanently. These findings underscore the complex interplay of economic conditions and fiscal policies in shaping migration patterns within the EU.

Based on these observations, we assert that growing international mobility, rising life expectancy, and fluctuations in total population may pose challenges to a government's capacity to generate fiscal revenues. These demographic and social shifts place additional demands on public resources, as governments must allocate increased efforts and funding to ensure the provision of public goods and services. Furthermore, these pressures complicate the pursuit of broader objectives, such as promoting social welfare and fostering economic prosperity. The interconnected nature of these factors highlights the delicate balance policymakers must achieve to sustain fiscal stability while addressing the evolving needs of the population. At the same time, according to Kleven et al. (2020) the mobility of people can be used in a productive way, by which states are encouraged to provide quality public services, with the aim of giving it an attractive status for the population, which will also indirectly lead to increased general well-being.

While countries like Romania face significant challenges due to high emigration rates, which impact population and economic dynamics, developed economies such as the Czechia and Slovenia

show more stability in both migration and life expectancy. Understanding and addressing these trends is vital for shaping future policies that support sustainable demographic growth and improved quality of life across the region. These trends underscore the need for effective policies that balance the needs of local populations with the challenges and opportunities of migration. Thus, governments can tailor fiscal and development strategies to maximize the benefits of migration with minimal negative impact on the existing social and economic structure.

➢ **Political indicators**

Within the political indicators, two of the six global governance indicators, namely the government efficiency index and the degree of corruption control, will be studied in comparison to the dimension of the corruption perceptions index. The World Bank Glossary defines government efficiency as the public's perception of several key aspects of governance. These include the quality of public services delivered, the extent to which the government operates independently of political influences, the effectiveness of policy development and implementation, and the credibility of the government's dedication to upholding its policy commitments. Similarly, the degree of control over corruption is described as the public's perception of how public authority is used for personal gain. This includes instances of corruption and the degree to which private interests dominate or "capture" state functions. These definitions emphasize the critical role of governance quality and integrity in fostering public trust and achieving effective administration. The Corruption Perceptions Index (CPI) measures the perceived level of corruption within a country, as determined through assessments conducted via international opinion surveys. Compiled by Transparency International, the CPI reflects public and expert evaluations of the extent to which public authority is misused for personal gain. This misuse is broadly defined as the "abusive use of public power for the purpose of obtaining private benefits." The index serves as a critical tool for comparing levels of corruption across nations, offering insights into the integrity of public institutions and the challenges posed by unethical practices in governance.

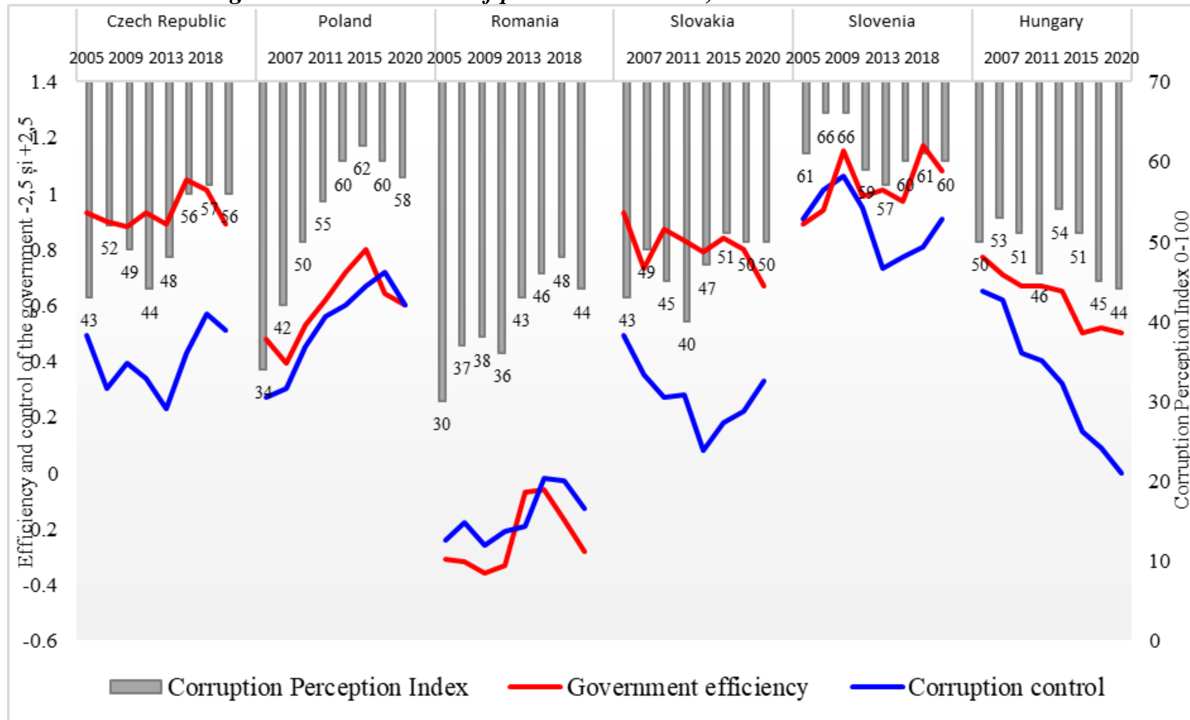
According to Figure 7, it is found that the highest level of corruption is found in the case of Romania, with values between 30 and 48 points. Although corruption followed a downward trend, it remained higher compared to other states, as lower index values indicate a greater prevalence of this phenomenon. Also, in Romania, the two indices related to governance are below the threshold of 0, having negative values, in the studied period, which indicates a weak perception of the population regarding the credibility of the governance. Reforming legislation to strengthen anti-corruption measures, enhancing law enforcement capabilities, and rebuilding public trust in governance are essential steps for Romania to combat corruption and improve governance credibility. Effective governance reforms will play a crucial role in reducing corruption, promoting transparency, and fostering sustainable development.

The most obvious increase in the index is found in the case of Poland, with the CPI almost doubling its value from 2005 to 2020, which underlines a decrease in the level of corruption in this country, but also an increase in government efficiency, as well as of the corruption control index. This indicates that government reforms and anti-corruption measures can have long-term positive effects on transparency and governance. Poland's example underscores the importance of committed anti-corruption strategies in fostering better public trust, institutional integrity, and sustainable development.

A slight decrease in corruption is found in Slovakia and Czechia. Regarding the indices related to governance, within the two countries, they are above the 0 threshold, indicating a control of corruption, as well as relatively good government efficiency. This suggests that the institutions in these countries are functioning at a satisfactory level in terms of anti-corruption and public administration. Slovenia, throughout the analyzed years, had a relatively constant pace in terms of the three indices,

being among the countries with low corruption and effective governance. This indicates stability in policies and administration, which contributes to a stable economic and social environment.

Figure 7. The evolution of political indicators, within the CEE countries



Source: the author's processing, through the Excel spreadsheet, based on the statistical data provided by World Bank and International Transparency Organization.

A special situation is in the case of Hungary, which with the year 2005 recorded low values in terms of the corruption control index, and with it the CPI also decreased in value, which signifies an increase in corruption at the national level, such as and a year-on-year deterioration in the population's perception of governance. Both Romania and Hungary are below the middle limit of the range, respectively 50 points, in terms of the CPI, which highlights the existence of corruption at a fairly high level, compared to developed CEE countries. Therefore, serious institutional interventions are required to restore public trust, improve governance, and create a more transparent and accountable political environment. Without these efforts, the negative trends in corruption and governance will likely continue, hindering both countries' social, fiscal, and institutional development.

In summary, it is believed that enhancing the well-being of citizens and fostering greater trust in government institutions at the European Union level requires the implementation of comprehensive governmental reforms. Such reforms should prioritize improving the transparency of public institutions and effectively curbing corruption, as highlighted by Lobonț et al. (2019). These measures are essential for strengthening public confidence in governance, ensuring accountability, and promoting equitable access to public services. Addressing these critical governance issues not only aligns with EU objectives but also contributes to the overall socio-economic stability and democratic integrity of member states. Therefore, while the nature and extent of corruption may vary among member states, it impacts the European Union as a whole by diminishing investment levels, hindering the efficient functioning of the internal market, and depleting public finances. This research into the

interconnections between taxation, the economy, and development- alongside political indicators- highlights the critical need for the formulation of appropriate policies at the EU level.

In this section, to assess whether the proposed hypotheses were fulfilled within the article, we can review the results presented for each hypothesis:

H1: The findings indicate that progressive tax systems and direct taxes contribute to equitable income redistribution and enhance general welfare. For instance, countries employing progressive taxation systems, such as Poland, have succeeded in reducing income inequality, suggesting a positive correlation with welfare.

H2: It is demonstrated that fiscal policies that redistribute income through progressive taxes contribute to social equity and increased welfare. Therefore, this hypothesis can be considered as confirmed.

H3: The research indicates that a high tax burden on corporate income negatively impacts economic growth, particularly in emerging economies like Romania and Poland, thereby supporting the hypothesis. Additionally, it has been shown that consumption taxes (like VAT) have a less disruptive impact on economic growth compared to income taxes.

H4: The study highlights the link between investments in education and healthcare, funded through tax revenues, and improvements in human development and happiness indices. Slovenia and Poland, which allocate substantial funds to these areas, show better human development indicators. The results confirm that countries with higher social security contributions tend to exhibit stronger human development indicators, although Romania shows lower performance, which partially supports the hypothesis.

H5: The research emphasizes the importance of balancing the direct taxes and the indirect taxes to ensure sustainable growth and enhanced social welfare. It has been observed that progressive fiscal policies contribute to reducing inequality and improving welfare, particularly in developed countries. This observation validates the hypothesis.

H6: Countries with efficient governance and high levels of corruption control, such as Slovenia and the Czech Republic, achieved better outcomes in terms of economic growth and welfare. Those with higher government efficiency also have lower levels of the shadow economy, such as Slovenia and the Czech Republic, supporting this hypothesis.

H7: The results show that emerging countries, like Romania, face challenges in maintaining fiscal revenues due to high emigration rates, suggesting a negative impact on general welfare. This observation supports the hypothesis.

Most of the proposed hypotheses were confirmed within the article, with the presented data and analyses supporting these hypotheses. This illustrates the correlations and interdependencies between fiscal policies and the macroeconomic, social, and governance indicators in CEE countries.

5. Conclusions

The ranking of the six CEE countries, created on the basis of the studied macroeconomic indicators, underlines the differences in economic, social and political progress. This ranking not only provides a clear picture of the current state of each country, but also indicates the necessary directions for policies adapted to each individual nation. Using this classification and descriptive analysis of taxation, it highlights areas where countries can improve resource management and reform implementation. To maximize progress, it is important that governments adopt different economic, social and fiscal policies that promote an environment conducive to sustainable and inclusive development, depending on the characteristics of their population. Finally, this study offers valuable insights into the intricate development patterns of CEE countries and highlights the importance of adaptability and innovation in government policies to address country-specific challenges and

opportunities. By extending the analysis beyond GDP, the study manages to capture qualitative aspects of social and economic development, providing a deeper insight into the realities of each country studied.

Based on the dimensioning of quality of life, economic advancement, and human progress in relation to fiscal taxes, making a ranking of the evolutions observed, with regard to developed states, the best evolutions of the studied indicators were observed in Slovakia and Slovenia, which are distinguished by remarkable progress in improving welfare indicators. Regarding the six CEE states analyzed, Romania was in last place among the six countries, which shows an unfavorable climate for well-being. Even if Romania does not have the lowest levels in macroeconomic indicators, the need for more effective governance is very important to stimulate economic growth and improve social welfare. Focusing on measures to improve governance could attract significant social and economic growth. A diametrically opposite situation was found in Poland, an emerging state, which meets many of the characteristics of developed states, which highlights the ability of this country to overcome the title of emerging economy, if the government of this state implements fiscal and economic policies aimed at increasing or at least to maintain at high levels the main order indicators of the human capital development and the well-being of society.

Examining compulsory levies through the lenses of well-being, economic growth, and development reveals that key macroeconomic indicators related to taxation can reflect not only economic and social progress but also political advancements within the CEE states. As analyzed in this paper, fiscal policy serves as a critical instrument for steering economic and social development. Tax revenues empower governments to invest in infrastructure, education, healthcare, and essential social services that enhance well-being. These investments are particularly vital for countries focused on both economic growth and the overall welfare of society, aiming to keep unfavorable indicators—such as unemployment and poverty rates—at low levels, while elevating indicators that contribute to well-being. This research highlights the significance of designing fiscal policies that promote economic advancement but also advance social equity, thereby improving conditions for society's most vulnerable groups.

In conclusion, this research offers a valuable understanding of the complexity and interdependence between taxation and macroeconomic indicators in CEE countries. By pursuing balanced and development-oriented fiscal policies, countries can hope to accomplish the objectives of long-term economic development and improved well-being for all citizens. Aligned with the findings of this study, a potential direction for future research could involve examining digitization and its influence on tax revenue collection and the reduction of the informal economy. Additionally, considering recent economic crises (the 2008 crisis and the COVID-19 pandemic), it would be useful to investigate the extent to which fiscal reforms implemented following these crises contributed to economic recovery and improved the well-being of the population. Studies could also explore the impact of temporary fiscal measures (such as tax breaks or direct subsidies) on reducing unemployment and stimulating consumption.

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