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Assessing the Effects of Fiscal Policy on Economic Growth in Welfare State Models

Summary Of The Doctoral Thesis

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Abstract

In recent years, increasing attention has been devoted to understanding how fiscal policy can enhance welfare in European Union (EU) member states. However, the optimal level and structure of taxation remain insufficiently investigated. Examining the relationship between fiscal policy and welfare can contribute to the specialised literature and inform fiscal policy decisions across the EU.

To support the practical application of Laffer's theory, this research extends the existing framework by examining various fiscal policy instruments, including the structure of public revenue, consumption, capital and labour taxation, public deficits, and public debt. It also investigates the optimal structure of public expenditure, bridging the gap between the theoretical foundations of nonlinear fiscal policy and their empirical application.

The study uses data from EU member states for 2001–2023, covering the economic crisis, the COVID-19 pandemic and recent geopolitical tensions. First, a bibliometric analysis using VOSviewer 1.6.19 identifies the determinants of welfare and groups them into five categories. Hierarchical clustering, based on an agglomerative approach and Ward's linkage criterion, subsequently groups member states according to their welfare levels. The main econometric method is the dynamic panel threshold model introduced by Seo et al. (2019), which examines the effects of fiscal policy components below and above estimated thresholds. A bootstrap-based linearity test implemented through the xthenreg estimator further tests for threshold nonlinearity.

The findings show that EU member states have shifted between welfare groups over the past two decades, influenced by five categories of determinants, including fiscal policy factors. The original contribution lies in identifying threshold levels for fiscal policy components and examining their implications for the structure and balance of public revenue and expenditure. By providing empirical evidence of nonlinear fiscal policy relationships and identifying turning points, the research extends Laffer's theory and offers a basis for fiscal reforms aimed at reducing welfare disparities across the EU.

Keywords: welfare state models, fiscal policy, taxation, economic growth, public debt, public deficit.

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Introduction

Due to all the challenges that have occurred in the last years, including the economic crisis, technological progress, the COVID pandemic, the digitalization process, the energy crisis, and the increasing geopolitical tensions, governments need a wide range of levers to restore the economy and to improve the budget balance. In this context, fiscal policy has proved in the last years to be a key instrument in the hands of the government, with a major impact on the whole economy. The effectiveness of fiscal policy for economic rebound has been proven in crisis situations, when monetary policy proved insufficient to recover the economy. Moreover, fiscal policy provided real support in the health crisis caused by the COVID-19 pandemic, through the financial assistance supplied. This justifies why it has become one of the main concerns of policymakers, being one of the government's policies with a direct and immediate impact on citizens' well-being, leading to the potential of complaints, even civil unrest, or otherwise, building public support for governments.

In the last period, more and more interest has been devoted to identifying how to increase the level of welfare in European Union countries by using fiscal leverage. However, the optimal level of taxation has not been sufficiently investigated. We strongly believe that its determination will fundamentally reshape the paradigm of taxation. The analysis of the impact of fiscal policy on welfare represents a topic with significant practical and academic implications. It would contribute to the specialised literature in the field, but also to governments and citizens, through the application of fiscal policy recommendations in the European Union's space.

Existing studies have provided valuable insights into the importance of fiscal policy in shaping the welfare state and highlighted the crucial role of fiscal policy in enhancing the social and economic environment. However, several significant issues regarding this topic remain unestablished. Prior research has focused on fiscal policy's components impact on welfare, considering the linearity between taxation, public expenditure, or public revenue and economic growth. On the other hand, Laffer's stated the non-linearity between tax rates and public revenue, but no empirical evidence provided evidence for this theory regarding the determination of the turning point.

In this context, several key questions with important economic and social implications emerge:

- *What are the determinants of welfare?*
- *What are the welfare state models of the European Union?*
- *Is there migration of states between models over time?*
- *What is the optimal level of taxation for ensuring citizens' well-being without affecting their tax compliance?*
- *Which of the three alternatives—direct taxation, indirect taxation, or social contribution—is preferableto enhance economic growth?*
- *Is the non-linear impact of fiscal policy determined by the various categories of taxes?*
- *Is the effect of public expenditure on welfare heterogeneous across public expenditure structure?*
- *What is the acceptable level of public deficit?*

The answers to these research questions would fill a gap in the specialised literature regarding the current structure of welfare state models in Europe, as well as regarding the determination of the turning point stated by Laffer's theory.

The thesis entitled "Assessing the Effects of Fiscal Policy on Economic Growth in Welfare State Models" aims to identify the optimal level of taxation so that the government can provide qualitative public goods and services, and so that citizens are not overloaded by the fiscal burden by analysing the welfare phenomenon in the European Union countries.

Paper 1 analyses the discrepancy between European countries in terms of welfare and the changes that have occurred during the period 2003-2021 due to national and international conditions, such as 2007-2008 financial and economic crises, digitalisation, globalisation, or the ongoing repercussions of COVID-19 pandemic.

Paper 2 focuses to providing the best perspective for policymakers regarding the optimum balance of fiscal policy. It analyses the impact of implicit labour taxation, implicit consumption taxation, expenditure per capita and government debt on welfare, measured by GDP per capita. This study is focused on European Union states for a period of 22 years, respectively 2001- 2022.

Paper 3 extends the previously conducted research by analysing the most effective structure of public revenue. In the specialised literature, the choice between direct taxes, indirect taxes, and social contributions raises numerous controversies. The paper's objective is to elucidate this gap

in knowledge and identify the optimal thresholds for the public revenue structure. We analysed panel data for EU states during the period 2002- 2023, and we found a turning point for each public revenue component.

Paper 4 offers another perspective on the level of fiscal policy, proving that not solely the implicit level of taxation is significant, but also their share in GDP. We include in our research EU27 for a period of 22 years, precisely 2002-2023. By utilising a dynamic panel threshold analysis, we identify significant thresholds for government expenditure, capital tax, labour tax, and tax burden, as a share of GDP.

Paper 5 enables us to complete the exhaustive analysis of the fiscal policy architecture from an expenditure perspective. Our research contribution is not to confirm their productive or non-productive character, but to determine the level at which these influences emerged. The outcomes suggest that it is necessary that productive expenditure exceed a certain level to positively affect the welfare.

Paper 1. Reshaping Welfare State Models: The Transformation of Post-Communist Nations

(Chapter based on **Munteanu, S.**, Dragos, S. L., & Mara, E. R. (2025). **Reshaping welfare state models: The transformation of post-communist nations.** *Acta Oeconomica*, *75*(1), 122-151.

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Owing to recent changes and innovation processes in economic systems, the categorisation of countries according to their specific regional characteristics and development level[1] has lost its representativeness, as within-group homogeneity is not always present. This brings to the fore a need to classify countries according to various indicators, including economic, social, and demographic ones. Numerous studies have recently focused on the creation of welfare state models, but no consensus has been reached on the variables to be considered or on how countries should fit each model. The primary reason for the variance in these outcomes can be attributed to the temporal dimension. Our study endeavours to establish that states tend to transition between models in response to evolving economic circumstances. The primary economic changes examined include the impactful 2007–2008 financial and economic crisis (hereinafter just 2008 economic crisis) and the ongoing repercussions of the COVID-19 pandemic.

The motivation for our study lies in the substantial differences between welfare states, that generated the field of comparative welfare state research of Esping- Andersen (1990). We start our research from their concept of welfare regime, which allowed a better understanding of the interaction of different factors in producing welfare. Over time, researchers have found that these welfare state regimes are the result of political, social, and cultural development factors, identifying three to six welfare state models, influenced by both the considered period and the

[1] According to the classification proposed by the United Nations Department of Economic and Social Affairs (2023), and the categorisation of countries according to regional criteria according to the classification proposed by the UN Trade and Development (2023).

studies variables. Considering the criticisms in the current related literature, our study also includes the fiscal factors in defining the welfare state regimes, besides the well-known economic, institutional, political and social factors. Until now, even though taxation directly impacts the citizen welfare, the influence of fiscal factors on welfare state models has been undervalued. In fact, the welfare state requires effective tax management to facilitate state intervention through social programs and legislation, which often involve changes to social and economic policies (Chan et al. 1997).

The term 'welfare state model' has become increasingly popular, especially in recent years, and the COVID-19 pandemic has shifted the focus from economic to welfare indicators, evoking need to shape welfare state models representative of the contemporary period. The applied bibliometric analysis revealed that the welfare state models are correlated with political factors, economic factors, institutional factors, social factors and fiscal factors. Although economic indicators are important for comparing countries and their development levels, welfare is also an important phenomenon that needs to be considered when implementing development policies. Diverging from prior research, this study employs a comprehensive framework to categorise states encompassing not only social, economic, and political factors but also institutional and fiscal factors—signifying an extension of the factors under scrutiny from prior similar examinations.

Our primary contribution to research lies in the analysis of state transitions between various welfare models over time. This allowed us to examine the vulnerability of welfare state models in diverse situations, including during the 2008 economic crisis, the COVID-19 pandemic, and periods of economic expansion.

Consequently, the present study stands apart from existing research in this domain by establishing a connection between welfare and taxation. Moreover, this research makes efforts to elucidate the evolution of well-being provisions across the explored nations over time. We consider the 2003–2021 period to capture the influence of the 2008 economic crisis and the recent pandemic on a group of European Union welfare states. Considering the importance of shaping welfare state models and the limited research conducted in this area, this study outlines welfare state models relevant to the current economic context in Europe.

The results of this study can be used for policy implementation measures at the regional level to increase the well-being experienced within the clusters of countries investigated. Despite the

sustained efforts to align the implemented policies across countries over the course of time, our findings underscore a discernible disparity between the models and policy orientations in the European Union. A primary potential reason for this lack of success in policy implementation alignment in the European Union may be the manner by which the policies were implemented, which were based only on development level; specifically, while policy implementation based solely on the development level of the state is not always relevant, giving due consideration to the welfare level and the political, economic, fiscal, institutional, and social contexts of states stands to enable the adjustment of political strategies to specific requirements within each model. From this perspective, our categorisation can serve as a foundational step towards devising policies to mitigate disparities among Member States.

Our study further emphasises the need to allocate greater attention to the states that have become European Union members during the past three stages of EU enlargement, specifically those in the Eastern and Emerging models. Importantly, our results imply that the states in the Emerging model are predominantly those that have become members of the Eurozone, which suggests that these countries have been experiencing a more stable economic and institutional environment ever since, fostering increased confidence among investors.

Paper 2. Non-linear effects of fiscal policy in European welfare states

(Chapter based on Dragos, S. L., Mara, E. R., Mare, C., & **Munteanu, S.** (2025). **Non-linear effects of fiscal policy in European welfare states**. *Economic Analysis and Policy*.)

The relationship between fiscal policy and welfare directly impacts our daily lives. Hence, its analysis is crucial to offer the best perspectives to policymakers regarding the optimum balance. Still, quantifying and determining the effects of fiscal policies on citizen welfare is an intricate task. For instance, the goal of government policy is to boost public revenue to finance public expenditures. However, this increase in public revenue leads to higher tax rates for the population. Consequently, citizens are often discontented with paying higher taxes, resulting in permanent conflict between the government and citizens. Clearly, a key question persists: What is the optimal taxation level for ensuring citizens' well-being without affecting their tax compliance? Achieving this equilibrium is the key to ensuring that tax policies are not only advantageous to the government, but also uphold the overall welfare of the population.

As the primary tool to improve social welfare, an appropriate fiscal policy is vital for providing quality public services, thereby supporting enduring economic growth, shaping unemployment, controlling inflation, maintaining economic stability, and encouraging income equality (Estrada et al., 2014; Clements et al., 2015; Núnez-Barriopedro et al., 2024; Afonso & Blanco-Arana, 2025). Therefore, understanding the impact of fiscal policy on citizen welfare is essential for financial stability and efficient economic management. Within the recent international context, this need for stabilisation has become crucial. For instance, the COVID-19 fiscal recovery strategies had different levels of effectiveness. The economic impact of the pandemic has been significant, affecting important branches of the economy such as business, cultural activities, the service industry, tourism and agriculture (Kumar et al., 2021). There have also observed negative social repercussions in labour market inactivity, poverty levels, social tensions, distancing of social relationships and community participation (Blanco Arana, 2020; Singh & Singh, 2020). According to Jalles (2024), the fiscal response of governments was a key tool to mitigate the negative impact

of the Covid-19 pandemic. Furthermore, the Russia-Ukraine War-induced energy crisis prompted European governments to respond with corresponding fiscal recovery strategies to support the economy, and reduce inflation and inequality (Coccia & Russo, 2025).

Additionally, analysing the effects of different taxes, such as consumption and labour taxes, along with public spending and public debt on individual well-being and society welfare can offer valuable insights into their broader economic impacts.

In particular, this paper is motivated by the striking differences in fiscal policy within welfare state models, despite the debate on fiscal policy harmonisation across the European Union (EU). Moreover, the existence of an inflection point in the effect of tax rates on budget revenues, as stated by the Laffer Curve, represents another important incentive to examine the non-linear effects of taxation on welfare. Our aim is to understand the multifaceted effects of public expenditure, consumption tax, labour tax, and public debt on a country's welfare. Using a dynamic panel threshold analysis, we examine a panel consisting of 27 European countries for the 2002–2021 period, and illustrate the non-linear relationships and threshold impacts that traditional models may ignore. Our work provides policymakers with significant information on how different fiscal policy levels impact economic growth. Finally, by determining optimal policy thresholds to maximise GDP and assure a high degree of citizens' welfare, our study also contributes to the literature by proposing fiscal strategies for each welfare model.

We find that a labour tax burden exceeding 35.37% can unfavourably affect welfare, indicating the need for balanced taxation policies. Thus, policymakers should avoid excessively high tax rates that could harm economic well-being, and reduce the incentives for investment and consumption. Next, governments should spend a minimum level of expenditure (approximately 18, 000 euros/capita) to ensure the provision of essential services and infrastructure like education, healthcare, and social services, which directly contribute to societal welfare. Meanwhile, Government debt can positively affect GDP per capita by up to 65% of GDP by funding infrastructure, public services, and economic stimulus. However, beyond this threshold, additional debt can adversely affect GDP per capita because of concerns about fiscal sustainability, higher interest rates, and the crowding out of private investment. Policymakers should carefully manage public debt by weighing the short-term benefits of borrowing against the long-term risks of excessive debt levels. Additionally, debt should be used for productive purposes such as public

investments in infrastructure, education, and green energy. Moreover, maintaining fiscal discipline is key for sustaining economic growth and improving citizens' welfare.

EU countries made important progress in achieving tax harmonisation and reducing development inequalities between countries. However, as shown in our study, substantial disparities exist between countries in terms of both fiscal policy and welfare levels. As such, concerted efforts and measures specific to each model can help increase citizens' welfare.

Paper 3. The multifaced impact of taxation on economic growth: Evidence from European Union countries

(Chapter based on **Munteanu, S.** (2025). **THE MULTIFACED IMPACT OF TAXATION ON ECONOMIC GROWTH: EVIDENCE FROM EUROPEAN UNION COUNTRIES**. *Review of Economic Studies & Research Virgil Madgearu*, *18*(2), 133.)

Even if citizens are reluctant to pay taxes, societies need resources to finance the national budget. Most of the time, citizens are so used to the basic public services provided by the state that they are no longer aware of the fact that governments allocate substantial amounts to found that services. What would a society be like in which there are no paved roads, no public lighting? What would a society be like in which you cannot call the free emergency service when you see an injured person on the street? Would you feel safe if you lived in a society where there were no police?

The implication of the government in the economy is fundamental, but before any intervention, it is necessary to deeply understand the impact of the regulations for the macroeconomic environment. As Khan (1997) stated, "We need government to define the rules of the game". Depending on the incentives and limits set by the state, an economy can become more attractive for investment, encourage work and development, and increase the quality of life for its citizens. Due to the practical experience, fiscal policy rules are necessary at the European level to avoid the negatively effects of a high public debt and to enhance the credibility of the European Central Bank (Franco et al. 2002).

To provide the basic public services that we are so used to, the state needs resources. The principal source of money in the state budget is the fiscal component. Taxes don't affect only the national budget, but they have a significant impact on households' decisions: influence personal and corporate investments and savings choices, influence the consumer preferences, the labour supply and innovation decisions (Johansson et al. 2008). It is known in the specialized literature that fiscal revenue is one of the main factors that influence national growth (Myles 2000). However, the

literature review revealed that the influence of tax revenue on economic growth is a controversial topic with divergent results. Moreover, while researchers in Asian countries have a growing interest in studying this correlation, at a European level this phenomenon is under researched. The opposing outcomes and the gap in the literature of studies for the European countries have created an opportunity of research that we want to dig in this paper.

Our findings outlined that the fiscal burden has a significant impact on the economic growth rate. By attracting more resources through the fiscal channel, the governments can boost investments, improve the medical and educational systems and allocate resources to research and development. The positive effect is confirmed for indirect taxes. It is very important to note that, according to our results, there is a significant threshold in the level of indirect taxes revenues. The positive impact of taxes on products and imports is achieved above the threshold of 11.5.

The direct taxation impact on economic growth rate is negative. However, the results are not statistically significant.

Regarding the net social contributions, we identified that they negatively affect the economic growth rate. However, we determined a threshold level set up at 7.5 shares of GDP. The negative impact is very similar in both regimes, under and above the threshold.

Considering the necessity of fiscal reform in the European space, which is facing challenges because of the economic and geopolitical situation, policymakers should take into account the results of our study to establish thresholds for harmonising fiscal pressure at the European level, to reduce disparities between states. We believe that our results can contribute to improve the European Union fiscal policy by maximizing the positive impact of taxes on a country's GDP.

Paper 4. Fiscal Policy Architecture and Economic Growth: Evidence of Threshold Effects in the EU27

(Chapter based on Mara, E. R., **Munteanu, S.,** & Dragos S.L. (2026), Fiscal Policy Architecture and Economic Growth: Evidence of Threshold Effects in the EU27. Available at SSRN http://dx.doi.org/10.2139/ssrn.6875035)

It is well known that fiscal policy influences the economic environment, but the boundary at which its positive influence reverses remain underexplored. Within the context of the European Commission's efforts to promote tax harmonization (Stability and Growth Pact, the Fiscal Compact, the European Semester), the findings of this research can provide a foundation for a sustainable fiscal policy at the European level.

Taxation and spending are two major and most efficient instruments of fiscal policy (Kasasbeh, 2021). Taxation focuses on the methods, timing, and channels through which the government can mobilise monetary resources without disrupting the economy. Substantial uncertainties persist in prior research regarding taxation's effects on the economy. Therefore, ascertaining the turning points may clarify this relationship. The rules and requirements of the European Union (EU) aim to shift the paradigm of consumption promoted before the global financial crisis of 2008, both at the microeconomic and macroeconomic levels—the latter implying government consumption. In the long run, consumption stimulation is not an appropriate solution—especially if it is not accompanied by investment expansion. The balance between the two main components of fiscal policy, revenues and expenditures, is also crucial. Their harmonisation is measured by the budget deficit. The level of deficit is the result of fiscal policy management, and it has implications from an economic perspective. Any current increase in the budget deficit level implies future tax growth.

Considering the above, this study attempts to fill the existing knowledge gap by confirming a non-linear relationship between fiscal policy and economic growth and ascertaining the optimal fiscal structure across EU countries.

Our research identifies the non-linear impact of fiscal policy on economic growth, including the main instruments: tax burden, government expenditure, capital, and labour taxation. We demonstrate that each fiscal policy tool has a different acceptability level, and we identify the specific thresholds across EU countries. Using a dynamic panel threshold model for 27 EU countries over the period 2002–2023, we establish the optimum architecture of the fiscal policy. The tax burden turning point of 39.96% of GDP for European countries represents a significant indicator of an optimal level of taxation.

The revenue structure plays a crucial role in shaping the economic environment. Therefore, special attention must be paid to the distortionary components of taxation, such as capital and labour taxes. Our research highlights the importance of maintaining capital and labour taxes below the identified threshold: 8.73% and 14.9% of GDP, respectively, to foster the economic growth rate.

The policy implications of our research reveal that these thresholds can be consolidated through specific measures, such as improving spending efficiency, instead of raising taxes and extending the tax base. Designing fiscal policy is a constant challenge to finance public needs and stimulate economic growth. Achieving the optimum balance between these two objectives imposes significant limitations on governments, and these thresholds can be considered milestones for a sustainable fiscal policy.

Paper 5. Testing the Impact of Spendings on Economic Growth in the European Union countries

This paper focuses on is analysing the fiscal policy and its trends in the European Union in crucial moments, such as the financial crisis, the Covid 19 pandemic and the geopolitical tensions, and the fiscal measures adopted for stimulating economic recovery. During difficult economic situations, fiscal policy turned out to be a real safety net, or conversely, turned out to be a danger to states if not used properly.

The requirements and rules imposed by the EU try to change the paradigm of consumption promoted before the global financial crisis not only on the microeconomic level, but also from the macroeconomic perspective – meaning the government consumption. On the long run, stimulating consumption is not the proper solution, especially if it is not accompanied by investment increase. The ground idea of increasing the government consumption even if must be financed through the public debt was to stimulate the economic growth. But at the same time, inefficiency in the public expenditures was stimulated (see, Afonso et al., 2010). This fact is due to unproductive expenditures increase (like social protection) and not only the productive expenditures like investments or education expenditures. In this paper, we try to verify which kind of expenditures according to COFOG classification has a positive impact on the economic growth and a negative one in the light of previous studies which identified productive and unproductive expenditures. On the other hand, the distortionary effect of the main components of taxation on the economic growth is also tested.

Our hypotheses validate the previous results from the literature, but in addition to confirming their productive/non-productive feature, they also identify the threshold at which these effects occur.

We confirm the productive nature of expenses in economic affairs, defence, environmental protection, housing, and community and health. To generate economic growth, the level of spending on general public services must exceed 5.11% of GDP. Also, defence spending must be above the threshold of 1.60 %. Maintaining spending on economic affairs at a higher level is also a key factor driving economic development. According to our results, a level of expenditure above 4.61% has a positive impact on the economy of European countries. Spending on housing and community amenities contributes to increasing the level of economic growth over the threshold of

0.70%. All these expenses mentioned above are categorised as productive expenditure (Chu et al. 2020). Therefore, their positive impact on economic growth was well known in the specialized literature (Kneller et al.1999; Bleaney et al. 2001), but our research highlighted a new phenomenon. It is necessary for these productive expenditures to exceed a certain threshold to positively influence economic growth. Otherwise, any increase in productive expenditure below the threshold level identified by our research will contribute to a decrease in the economic growth rate.

General conclusions, limitations and future research directions

Due to the COVID-19 pandemic, the term “welfare” has increased in importance for researchers and policymakers, as more of them attempt to identify solutions to increase the level of welfare perceived by citizens. However, no previous research has analysed the transitions of states in welfare state models over time. The outcomes of this research have covered a literature gap and demonstrated that EU states have migrated between models in the last two decades, determined by five categories of factors, including fiscal policy ones.

Designing fiscal policy is a constant challenge to finance public needs and stimulate economic growth. Also, the optimal level of fiscal policy is hard to determine. The governments focus on attracting more resources to fund public expenditure, whereas the citizens intend to contribute less to the public budget. Identifying the point where the interest of citizens intersects with the government’s interest addresses a literature gap and provides insight into how to apply fiscal policy’s leverages for achieve economic development.

While existing studies have explored the linear relationship between fiscal policy and economic growth, limited attention has been dedicated to the non-linear relationship. The thesis addresses the gap by expanding Laffer’s theory for each fiscal policy’s component in a practical implementation framework.

Starting from the hypothesis that Laffer’s curve can be extended to each fiscal policy’s component, our primary research contribution is to confirm the non-linear impact of fiscal policy on welfare across European Union countries. The originality of our contribution is that the empirical results successfully identified the optimum structure of public revenue and expenditure, as well as the balance between them.

The novelty of our research is the delimitation of welfare state models at the EU level and the identification of state migrations between clusters. While other authors have focused on the identification of constant welfare models over time, we have revealed that states transitions occur as a result of development trajectory.

In light of the welfare state models at EU level, the application of spatial panel methods in research could generate insightful results. Based on these, the European Commission can successfully implement various policies to reduce disparities, which remains a major issue for the EU integration framework. Despite its contributions to the field, several limitations should be acknowledged. The results are limited by data availability. In addition, GDP per capita or economic growth rate represents an incomplete measure of welfare. Even though many researchers regard it as the most appropriate option currently available, welfare also encompasses principles of equal opportunity, income equality, and public responsibility for social protection. Considering the arguments presented in the specialised literature, we argue that GDP can be a reliable indicator, but it is still necessary to develop a composite indicator, which encompasses social, fiscal, political, institutional and economic dimensions. A holistic interpretation of the welfare phenomenon is required, as governments should focus on considering welfare in its entirety.

Pertaining to future research directions, we intend to extend the sample of countries to a global level. The ongoing economic, social and geopolitical tensions amplify the necessity of increasing the welfare experienced by the citizens. Also, the global discrepancy between the quality of life, life satisfaction index, income distribution, education, infrastructure, and economic development has reached a high level. Using fiscal policy as an instrument to increase welfare levels may constitute a viable solution to these problems.

Furthermore, another potential research area is to encompass the environmental pollution load's effects on citizens' welfare. In recent years, states have increased considerably the excise taxes on fuels and energy to discourage their consumption. Moreover, public revenues from these sources are often used for investments or projects to combat the negative effects of pollution. Therefore, climate change has a strong impact on fiscal factors, influencing welfare in two manners: directly, through air quality, and indirectly, and one example is the increase in taxes and excise duties. Analysing the relationship between fiscal policy and climate change would bring valuable insights for policymakers.

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