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Ensuring Citizens' Well-Being in the EU: A Comparative Analysis of Fiscal Policies

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Abstract: Objectives: This paper undertakes an analytical examination of the experiences of European Union member states with the objective of identifying exemplary practices that may be suitably adapted and implemented within the context of the Republic of Moldova. **Prior Work:** This paper is a part of the authors' broader research on the role of fiscal policy in ensuring the citizens` well-being, conducted within the subprogram „Strengthening socio-economic and legal mechanisms to ensure the well-being and security of the citizens" (CONSEJ 01.05.02). **Approach:** In this paper the authors perform a comparative study of the main public finance indicators, such as the structure of public revenues and expenditures, the public budget balance, public debt. **Results:** Although there are fiscal rules applied in the EU member states, the fiscal policy in EU member states varies among countries. It is also noted that recent economic developments have had a negative impact on the sustainability of public finances in EU member states, with a negative impact on ensuring the well-being of citizens. **Implications:** The experiences of EU member states substantiate the imperative of maintaining fiscal discipline in the Republic of Moldova, particularly in light of its status as a candidate for EU accession. **Value:** This study constitutes an original analysis of the experiences of EU member states in promoting citizens' well-being through fiscal policy, offering valuable insights and lessons for national public authorities in the Republic of Moldova.

Keywords: fiscal policy; well-being; public debt; budgetary deficit; sustainability

JEL Classification: H62, H63

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1. Introduction

As several studies suggest, guaranteeing the well-being of citizens within EU member states requires a complex, integrated fiscal reform adapted to its development context and European objectives (Barcena-Martin et al., 2017; Li et al., 2024; Rodriguez-Pose & Maslauskaite, 2012; Tselios, & Rodriguez-Pose, 2024; Vines, 2016). Reducing inequality through progressive fiscal and social policies is a fundamental component of the welfare state model in the European Union. The experience of EU member states demonstrates that fiscal policies are successful when they are perceived as fair and well-administered. In essence, ensuring well-being cannot take place without ensuring social support for fiscal-budgetary policies (Diaz-Serrano & Rodriguez-Pose, 2012; Hudson, 2017; Wilensky, 2006).

In the context of the Republic of Moldova that obtained the candidate status for EU accession in June 2022, the analysis of European countries' experiences in promoting citizens' well-being through fiscal and budgetary policy is of particular relevance. Such an examination serves to identify best practices that could be adapted and implemented within the Republic of Moldova.

2. Material and Methods

For the study of the specialized literature carried out within the research, the VOSviewer 1.6.20 software was used, which allows the identification and visualization of the relationships between the different themes and concepts addressed in the specialized literature. The co-occurrences of keywords, citations, co-citations and thematic networks were analyzed, providing a clear picture of the structure and trends of research in the field. Searching the Web of Science platform for articles using the keywords “fiscal policy” and “well-being” and eliminating irrelevant categories allowed the identification of 38 scientific articles. In order to analyze the evolution of fiscal revenue, budget expenditure, budget deficit and public debt indicators in the EU, the data were taken from the Eurostat website, and in the case of the Republic of Moldova, the open data catalog for 2024 was consulted on the website of the Ministry of Finance of the Republic of Moldova. The data were processed by applying statistical analysis, synthesis, induction and deduction.

3. Literature Review

Most of the identified, and analyzed studies focus on the social function of fiscal policy in reducing inequalities and poverty (Li et al., 2024; Rodriguez-Pose & Maslauskaite, 2012), as well as on the essential role of integrated public policies. Regarding the terms most frequently used in the analyzed studies, these are “inequality”, “government”, “policies”, “fiscal decentralization”, “corruption”, "poverty", "preferences", and "welfare-state", which shows that the specialized literature focuses not only on the technical aspects of fiscal policy, but also on structural dimensions such as governance capacity, the problem of corruption and institutional construction (Hudson, 2017). The importance of fiscal decentralization also highlights the recent interest in how public resources are managed at the territorial level to reduce regional disparities (Tselios & Rodriguez-Pose, 2024). Thematically, the analysis demonstrates that fiscal policies are approached in close relation to social, economic and political objectives. The social sphere is dominant, as concepts such as poverty, inequality, social protection, income, support and retirement are deeply integrated in discussions of modern fiscal reforms (Barcena-Martin et al., 2017). The economic and institutional sphere is also present, reflecting concerns for governance efficiency, combating corruption and aligning fiscal policies with citizens' preferences (Cassette et al., 2013). The territorial dimension is becoming increasingly relevant, highlighted by the emergence of themes related to regional disparities and fiscal decentralization (Tselios & Rodriguez-Pose, 2024).

The semantic map in Figure 1 presents the connections between key concepts within the researched topic, integrating a temporal dimension: the concepts on the map are associated with colors based on the year of publication.

Thus, it is found that the initial debates in the specialized literature on the researched topic, carried out in the period 2014-2017, focused on the structural foundations of fiscal policies, such as redistributive equity, reducing inequality and strengthening democratic institutions. There is also evidence of a concern for different national models of fiscal policies and social support mechanisms.

However, in the 2014-2022 period, a conceptual maturation took place in the analysis of European public finances, moving from the issue of budgetary balance towards integrated fiscal, social and territorial policies.

The analysis of more recent studies shows a thematic reorientation towards:

- the impact of fiscal decentralization in poverty reduction;
- the role of local administration and territorial governance;
- the quality of public services;
- the risk of corruption in the implementation of fiscal policies;
- the evaluation of post-2008 anti-crisis policies and the effects of austerity measures.

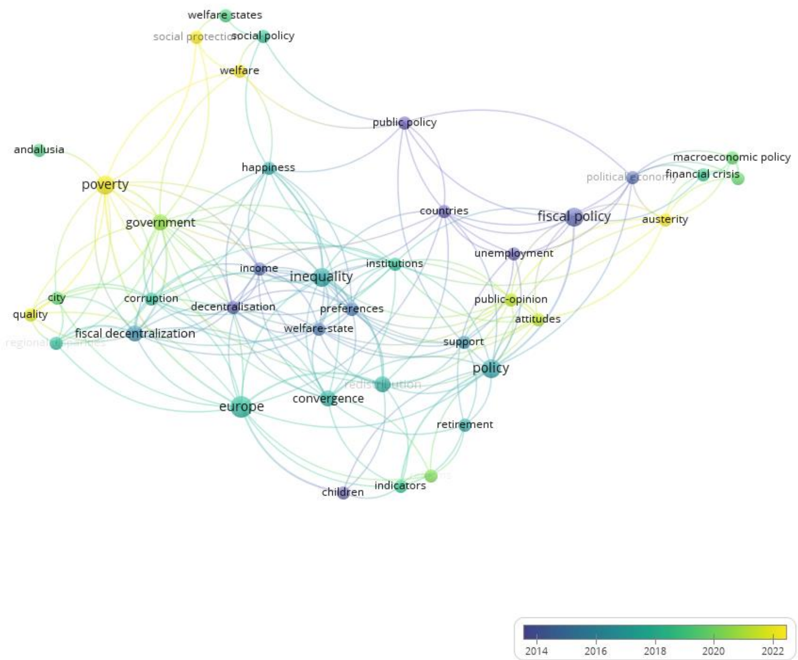

Figure 1. Map of evolution over time of key concepts within the researched topic

Source: Created by the authors using VOSviewer 1.6.20 software

The theme of poverty indicates that poverty reduction through fiscal reforms has become an absolute priority in recent debates. Concepts such as “welfare”, “social policy”, and “public policy” are well connected to each other and to the center of the network, suggesting that contemporary fiscal policies are no longer evaluated exclusively in terms of economic efficiency, but also through their impact on the citizens’ well-being.

In recent studies, “fiscal policy” remains the center of gravity, being one of the two largest nodes in the network, connected to both classical macroeconomic issues and emerging social problems. The first important subtheme is the interaction between fiscal policy and political economy, emphasizing that political structure, institutional capacity, and national particularities significantly influence the efficiency of fiscal policies. The second sub-theme is the impact of economic crises on fiscal policies, which shows that in the post-crisis period, fiscal policies have been reconfigured, with many governments adopting severe austerity measures with controversial social effects. The third sub-theme is public perception of fiscal policy. In recent years, the focus has shifted to how citizens perceive the fairness of fiscal policies and the impact of these policies on unemployment and social satisfaction. This distribution indicates that fiscal policy is today approached as an integrated tool for economic stability and social justice simultaneously.

4. Results and Discussion

Fiscal policies in relation to citizens' well-being are analyzed in particular through their capacity to reduce inequalities. In the European Union, the redistribution through progressive taxation and social transfers is a key practice for social cohesion, redistribution mechanisms being not accidental, but are deliberate results of state intervention. Guaranteeing citizens' well-being requires fiscal policies clearly oriented towards equity and measurable social outcomes (Barcena-Martin et al., 2017).

Regarding the state's involvement in income redistribution through taxes, the analysis of the share of tax revenues in GDP (Figure 2) shows that the indicator varies considerably among member states. Thus, in 2023 the highest indicator was recorded in France, at 45.6%, and the lowest in Ireland, at 22.7%, the EU average being 40.0%. The degree of fiscal pressure in the Republic of Moldova in 2023, expressed by the share of tax revenues in GDP, including social security contributions and health insurance premiums, is 30.6%, being lower compared to most European countries, surpassing only Bulgaria, Romania, Malta, Sweden and Ireland.

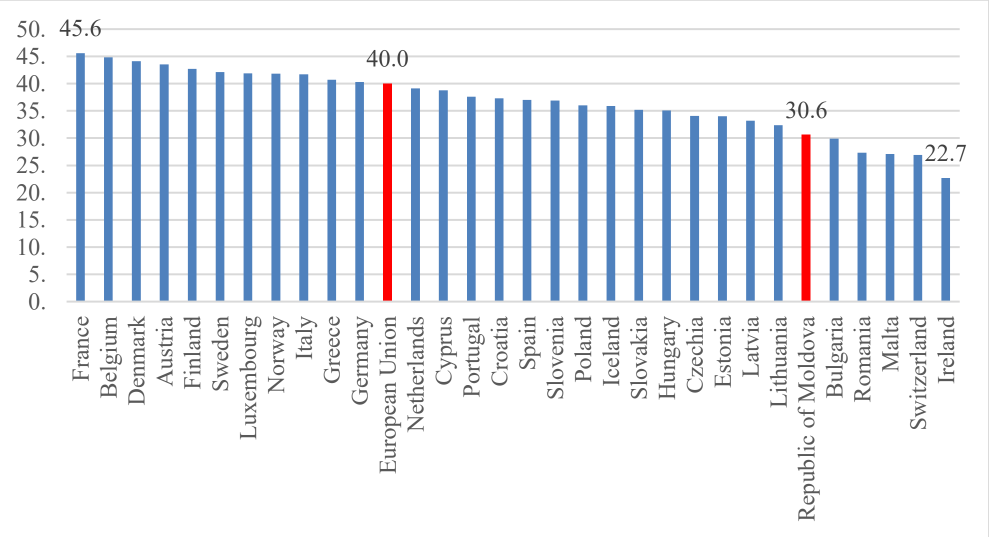

Figure 2. Share of tax revenues (including contribution revenues) in GDP in EU member states compared to the Republic of Moldova in 2023

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_TAXAG) and the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

The structure of tax revenues in EU member states in 2023, presented in Figure 3, also demonstrates a high degree of heterogeneity in the use of fiscal instruments among EU member states. For example, in Denmark, income and wealth taxes contribute with a share of 66.9% to tax revenues, while social security contributions contribute by only 1.6%, compared to the Czech Republic, where the share of social security contributions in total tax revenues was 45%. Also, in Switzerland, Norway, Iceland and Ireland, income and wealth taxes contribute with over 50% to tax revenues.

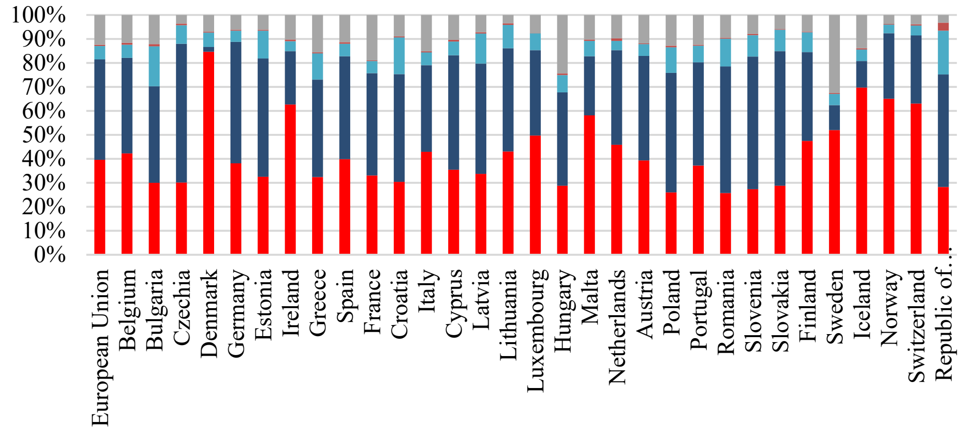

Figure 3. Structure of tax revenues (including contributions) in EU member states and the Republic of Moldova in 2023

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_TAXAG) and the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

In 2023, the largest share of tax revenue in the EU was accounted for by social security contributions, followed by income and wealth taxes, with a share of 32.6%, and VAT revenues with 17.8%. Revenues from excises have a share of 5%, and those from customs duties 0.4%.

Compared to the European Union, in the Republic of Moldova in 2023, value-added tax (VAT) revenues accounted for 32.8% of total tax revenues, while revenues from social security contributions and health insurance premiums represented 31.5%. Income and wealth taxes contributed 19.0%, and excise duties accounted for 12.3% of tax revenues. These shares are significantly higher than those observed in EU member states, as is the case with customs duties, which contributed 2.2% to total tax revenues.

Thus, in comparison with the tax revenue structure in EU member states, the share of indirect taxes, namely VAT, excise duties, and customs duties, in the Republic of Moldova reached 47.3% of total tax revenues in 2023, a level exceeding that of any EU member state (Figure 4). This situation is concerning, as indirect taxes are regressive in nature and therefore contribute to the deepening of social inequalities.

In the EU, public policies aim not only for economic stability but also for general well-being. Within the context of the Republic of Moldova, marked by emigration and social dissatisfaction, the integration of subjective well-being concepts into budgetary and fiscal policies is more pertinent than ever. This would imply that budgetary policies should also pursue an increase in citizens' satisfaction levels, not solely fiscal optimization, thus transitioning from a reactive intervention model to a proactive, preventive, and inclusion-oriented one (Neimanns et al., 2018; Nikolova & Graham, 2014; Rodriguez-Pose & Maslauskaite, 2012).

Within the EU, fiscal policies are inextricably linked to the strengthening of the welfare state, which implies an extensive social safety net, proactive social policies and citizen-centred public policies. The concept of “happiness” is not superficial; it integrates elements of financial stability, access to education and health as well as a sense of social belonging. Effective social policies, adequately financed, can contribute to increasing the general satisfaction of the population. The analysis of the structure of budget expenditure in EU member states confirms this (Figure 5).

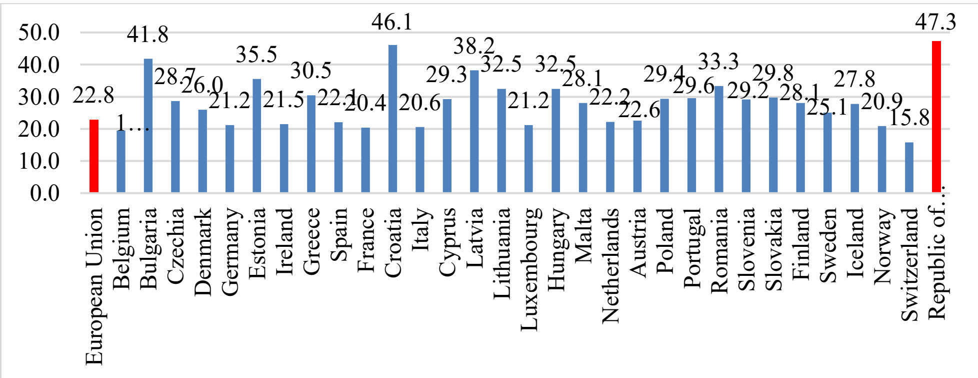

Figure 4. Share of VAT, excise and customs revenues in tax revenues in EU member states compared to the Republic of Moldova in 2023

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_TAXAG) and the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

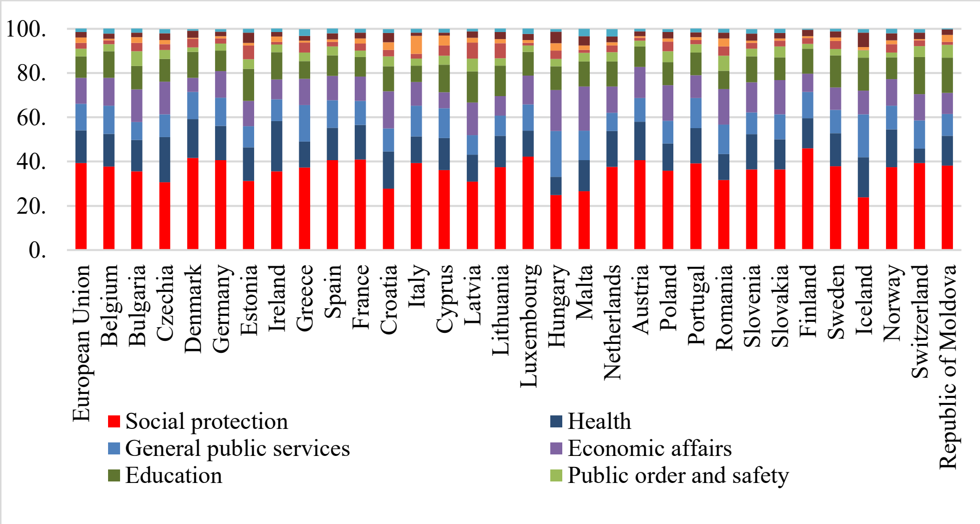

Figure 5. Structure of budget expenditures in EU member states compared to the Republic of Moldova in 2023

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_EXP) and the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

In 2023, it is found that, compared to the structure of tax revenues, the structure of budget expenditures of EU member states is much more homogeneous, although it remains different. In the EU, social protection expenditures have the highest share, of 39.3% in total, followed by health expenditures, with 14.8%, general public services, with a share of 12.0%, services in the economic field, with 11.8%, and education expenditures with a share of 9.6% of total budget expenditures. Thus, it is found that socio-cultural expenditures account for 2/3 of total budget expenditures (Figure 6).

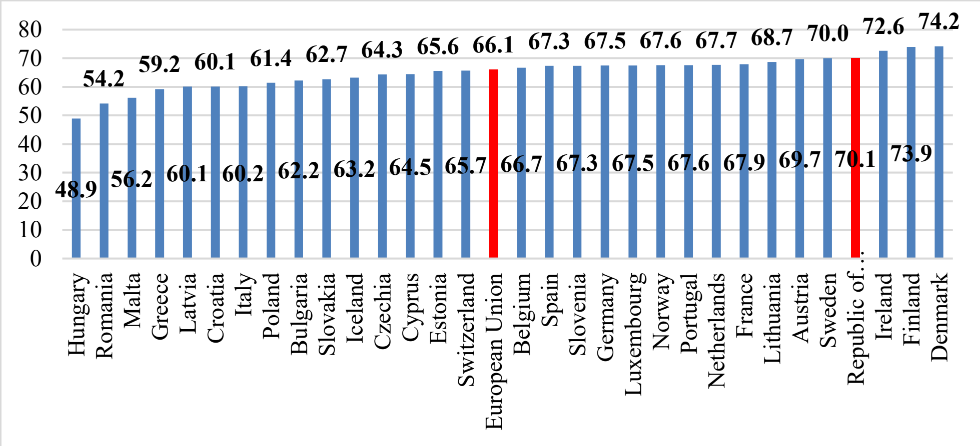

Figure 6. Share of socio-cultural expenditures in EU member states compared to the Republic of Moldova in 2023

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_EXP) and the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

In the Republic of Moldova, the share of socio-cultural expenditures (expenditures on social protection, healthcare, education, culture, sports, youth, religions and recreation) in 2023 was 70.1%, which is more than in most EU countries, except for Ireland (72.6%), Finland (73.9%) and Denmark (74.2%).

In recent decades, the focus has shifted from strictly economic indicators to assessing the quality of life. Fiscal policy should not only be technically efficient, but also contribute to creating a society in which people feel fulfilled and protected. Fiscal strategies should include explicit objectives related to the well-being of citizens, such as reducing economic stress or improving access to social services.

Based on the Human Development Index (HDI) for 2023 (Annex 1), EU member states can rightly be considered examples from which to learn. Thus, in 2023, the first 6 positions in the world were occupied by EU member states, namely Iceland, which recorded the highest level of the index in the world, 0.972, closely followed by – Norway and Switzerland, with an index of 0.970, Denmark – 0.962, Germany and Sweden – 0.959. It should also be noted that in 2023, according to the HDI size, all EU member states were included in the category of states with very high human development. In this ranking, the Republic of Moldova occupied 86th position in the world, being included in the category of countries with high human development, recording an index of 0.785.

The analysis of the correlation between indicators of living standards, such as HDI, and indicators of income distribution inequality (Gini coefficient) on the one hand,

and the indicators characterizing fiscal policy, which were analyzed earlier, on the other hand, shows that although there is no correlation between the Gini coefficient and indicators of budgetary income and expenditure, in the case of HDI an inverse causality link is established with the share of revenues from indirect taxes (Annex 1). Thus, the higher the HDI, the lower the contribution of indirect taxes to the formation of state revenues and vice versa. Moreover, namely in countries such as Switzerland, Norway, Iceland and Ireland, where income and wealth taxes contribute in a proportion of over 50% to the formation of fiscal revenues, the highest levels of HDI are recorded.

In the EU, recent financial crises have demonstrated the importance of a flexible fiscal policy, capable of responding quickly to recessions without sacrifices from citizens, prompting a profound reassessment of fiscal and monetary policies. The Republic of Moldova has also been affected by regional and domestic crises. In previous studies, the authors found that *"the economic crisis generated by the COVID-19 pandemic, as well as the war in Ukraine, directly and significantly affected the budget balance of the BPN, with a budget deficit of 5.64% of GDP recorded in 2020, and in 2023 the level of this indicator reached a record level of 6.94% of GDP"* and regarding public debt, expressed as a share of GDP, it recorded an increase *"from 28.1% in 2019 to 35.90% in 2023",* with a trend of *"increasing risks associated with state debt in the Republic of Moldova"* (Ulian et. al., 2024, pp. 353-354).

Fiscal policies must have a countercyclical function, that is, to mitigate the effects of crises, not amplify them, so that risk management is carried out. Sustainable well-being requires flexible fiscal policies, capable of supporting domestic demand and social investments even in difficult times. In addition, fiscal policy must be coordinated with monetary policy to maximize the positive impact on the economy. Financial crises show that structural deviations must be addressed in periods of growth, not only in crisis ones. Thus, as highlighted by a series of studies (Cassette et al., 2013; Glushenkova & Zachariadis, 2020; Vines, 2016), in order to guarantee the well-being of citizens, the Republic of Moldova needs a mature, stable and sensitive budgetary-fiscal strategy to economic cycles

Comparing the evolution of public finance sustainability indicators in EU member states, it is found that the worsening of the situation in the Republic of Moldova falls within the similar trend recorded within the EU, where the share of government debt, expressed as a share of GDP, decreased in the period 2016-2019, by 6.6 p.p., respectively, from 84% to 77.4% (Annex 2), compared to the decrease of 9.2 p.p., recorded in the Republic of Moldova (Annex 3). In 2020, both in the EU and in the Republic of Moldova, public debts increase sharply, by 12.1 p.p., and by 8.3 p.p., respectively. As it can be noticed from data in Annex 3, the raise of debt in the Republic of Moldova was caused by the raise of the amount of state debt.

Similarly to the previously analyzed indicators, the situation of budget deficit and public debt presents significant heterogeneity between the member states of the EU. At the end of 2023, the highest levels of public debt were recorded in Greece (163.9%), Italy (134.8%), France (110.0%), Spain (105.1%) and Belgium (103.1%), in contrast to the lowest values recorded in Estonia (20.2%), Bulgaria (22.9%) and Luxembourg (25.6%). In the same year, the public debt of the Republic of Moldova stood at 35.9% of GDP, significantly below the average of 80.8% of GDP recorded by EU member states.

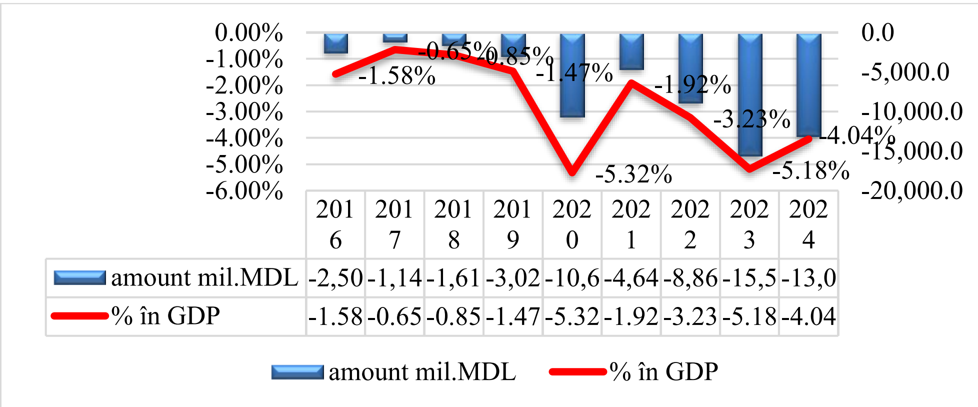

Figure 7. National public budget deficit in the Republic of Moldova

Source: Prepared by the authors based on the data from the Ministry of Finance of the Republic of Moldova (https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024)

Regarding the budget deficit, the situation presents a distinct configuration. Analyzing the evolution of this indicator, a more significant impact of the economic crisis in 2020 on the economies of EU member states is observed, where the budget deficit level reached 7.0% of GDP, compared to 5.3% of GDP recorded in the Republic of Moldova. Subsequently, in 2023, the Republic of Moldova recorded higher budget deficits, of 5.2% of GDP, in contrast to the value of 3.5% of GDP recorded in EU member states (Annex 4 and Figure 7).

Poverty is perceived as not only an economic phenomenon, but also a political and administrative one, directly influenced by the efficiency of governance and the territorial distribution of income (Baccelli & Morino, 2020; Swianiewicz & Mielczarek, 2010). In the EU, fiscal decentralization policies have been implemented precisely to allow local administrations to respond more effectively to specific social needs, thus reducing regional disparities. In the Republic of Moldova, fiscal decentralization is a process that has begun but is insufficiently implemented, with great challenges related to administrative capacity and corruption. Decentralization, without effective anti-corruption measures, can worsen inequalities instead of reducing them. If governance is weak or corrupt, decentralized funds will not reach the communities that need them most. For the Republic of Moldova, where the differences between urban and rural areas are very pronounced, the implementation of a European model of fiscal decentralization oriented towards equity is very important. Cities are seen as key actors in the process of poverty reduction through adapted local policies. However, the "quality" of local government determines whether these policies have positive effects or not. The experience of Andalusia - a Spanish region that has undergone extensive reforms, and where decentralization has been used to combat regional poverty - is noteworthy in this regard (Tselios & Rodriguez-Pose, 2024).

5. Conclusions

Based on the above, it was empirically established, through the experience of EU countries, that in order to ensure the well-being of citizens through fiscal policy, it is necessary to meet two conditions: the first would be that the collection of revenues at the disposal of the state should be done from the account of direct taxes, and the second would be that the state should invest in human capital and financially support citizens, through priority financing of social and cultural expenses. In the case of the first condition in the situation of the Republic of Moldova, this would not necessarily be translated into an increase in the degree of fiscal pressure of direct taxes, but into the financial education of citizens for voluntary tax compliance. It is illusory to expect the state to increase the level of well-being, without each citizen, especially those who have a tax base, not contributing to this well-being by paying taxes.

In the Republic of Moldova, the increased share of indirect taxes in the formation of budget revenues is due, on the one hand, to the fact that the country's economy is based on consumption, but also to the fact that in the case of indirect taxes there are fewer possibilities for tax evasion, as in the case of direct taxes. In the Republic of Moldova, where trust in public institutions is low, these efforts must be accompanied by communication campaigns and public consultation. Fiscal policies must be accompanied by efforts to increase transparency and effective communication with citizens. Public authorities should continue their efforts to achieve voluntary tax compliance of taxpayers, but also to reduce the size of the shadow economy.

Thus, the success of fiscal policy in guaranteeing the well-being of citizens does not depend only on traditional economic parameters, but requires a deeply integrated, multidimensional approach and oriented towards social equity, sustainable development and democratic governance. Modern fiscal and budgetary policies must primarily aim at reducing economic inequalities, strengthening financial governance, equitable decentralization of resources and building a solid welfare state. These policies must respond to social expectations and be closely correlated with the objectives of regional development and social cohesion, in order to support the process of European integration and the sustainable increase in the quality of life of citizens.

In the case of the Republic of Moldova, in order to synchronize with European directions, the emphasis in fiscal policy must migrate from an exclusively accounting vision of public revenues and expenditures, towards the integration of social objectives, territorial cohesion and poverty reduction, as well as towards the promotion of responsible fiscal decentralization and the quality of local public administration. At the same time, the Republic of Moldova must anticipate that future European standards will also include dimensions such as happiness, quality of life and sustainable social protection, trends that must be internalized if it wants to build a public financial system compatible with EU standards.

The Republic of Moldova, which aspires to European integration, must develop fiscal policies that are clearly redistributive, but also rigorously evaluate them through standardized indicators, comparable to European ones. Without a continuous impact assessment, policies may become ineffective or even counterproductive.

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Annex 1. Correlation between living standards indicators and public finance indicators

Country	HDI Index	Gini coefficient of equivalised disposable income	The share of tax revenues in GDP, %	The share of indirect tax revenues in total tax revenues, %	The share of social and cultural expenditures in total expenditures, %
Republic of Moldova	0.785	33.6	30.6	47.3	70.1
Bulgaria	0.845	37.2	29.9	41.8	62.2
Romania	0.845	31.0	27.3	33.3	54.2
Hungary	0.870	29.0	35.1	32.5	48.9
Slovakia	0.880	21.6	35.2	29.8	62.7
Croatia	0.889	29.7	37.3	46.1	60.1
Latvia	0.889	34.0	33.2	38.2	60.1
Portugal	0.890	33.7	37.6	29.6	67.6
Lithuania	0.895	35.7	32.4	32.5	68.7
Estonia	0.905	31.8	34.0	35.5	65.6
Poland	0.906	27.0	36.0	29.4	61.4
Greece	0.908	31.8	40.7	30.5	59.2
Cyprus	0.913	29.6	38.8	29.3	64.5
Czechia	0.915	24.4	34.1	28.7	64.3
Italy	0.915	31.5	41.7	20.6	60.2
Spain	0.918	31.5	37.0	22.1	67.3
France	0.920	29.7	45.6	20.4	67.9
Luxembourg	0.922	30.6	41.9	21.2	67.5
Malta	0.924	33.0	27.1	28.1	56.2
Austria	0.930	28.1	43.5	22.6	69.7
Slovenia	0.931	23.4	36.9	29.2	67.3
Finland	0.948	26.6	42.7	28.1	73.9
Ireland	0.949	27.4	22.7	21.5	72.6
Belgium	0.951	24.2	44.8	19.5	66.7
Netherlands	0.955	26.5	39.1	22.2	67.7
Germany	0.959	29.4	40.3	21.2	67.5
Sweden	0.959	29.5	42.1	25.1	70.0
Denmark	0.962	28.2	44.1	26.0	74.2
Norway	0.970	24.7	41.8	20.9	67.6
Switzerland	0.970	31.5	26.9	15.8	65.7
Iceland	0.972	-	35.9	27.8	63.2

Source: Prepared by the authors based on Eurostat data (https://doi.org/10.2908/GOV_10A_TAXAG, https://doi.org/10.2908/ILC_DI12,), data from the Ministry of Finance of the Republic of Moldova *(https://mf.gov.md/ro/content/catalogul-de-date-deschise-al-mf-pentru-anul-2024) and Human Development Reports (https://hdr.undp.org/data-center/human-development-index#/indicies/HDI).*

Annex 2. Government debt in EU member countries, % of GDP

	2016	2017	2018	2019	2020	2021	2022	2023
EU	84.0	81.5	79.5	77.4	89.5	86.7	82.5	80.8
Euro Zone - 19 states	90.0	87.5	85.6	83.7	96.5	93.9	89.6	87.5
1. Estonia	10.2	9.4	8.5	9.0	19.1	18.4	19.1	20.2
2. Bulgaria	29.1	25.1	22.1	20.1	24.4	23.8	22.5	22.9
3. Luxembourg	19.6	21.8	20.9	22.3	24.5	24.4	24.6	25.6
4. Sweden	42.8	41.6	39.8	35.7	40.1	36.7	33.6	31.4
5. Denmark	41.7	40.2	38.5	38.3	46.3	40.5	34.1	33.6
6. Lithuania	39.8	39.1	33.3	35.6	45.9	43.3	38.1	37.3
7. Czech Republic	36.2	33.8	31.7	29.6	36.9	40.7	42.5	42.4
8. Ireland	72.6	65.2	61.5	55.9	57.0	52.6	43.1	43.3
9. Latvia	41.7	40.3	38.3	37.9	44.0	45.9	44.4	45.0
10. Netherlands	60.9	56.0	51.6	47.7	53.4	50.5	48.4	45.2
11. Malta	53.1	45.6	41.4	39.2	48.6	49.6	49.3	47.7
12. Romania	37.8	35.3	34.4	35.0	46.6	48.3	47.9	48.9
13. Poland	54.1	50.4	48.2	45.2	56.6	53.0	48.8	49.7
14. Slovakia	52.1	51.4	49.3	48.0	58.4	60.2	57.7	56.1
15. Croatia	79.3	76.2	72.8	70.9	86.5	78.2	68.5	61.8
16. Germany	68.3	64.0	60.8	58.7	68.0	68.1	65.0	62.9
17. Slovenia	79.4	74.9	71.0	66.0	80.2	74.8	72.7	68.4
18. Hungary	74.6	72.0	68.8	65.0	78.7	76.2	73.8	73.4
19. Cyprus	106.9	96.5	100.7	92.3	113.6	96.5	81.0	73.6
20. Finland	68.6	66.6	65.4	65.3	75.2	73.1	74.0	77.3
21. Austria	83.4	79.1	74.6	71.0	83.2	82.4	78.4	78.6
22. Portugal	131.2	126.0	121.1	116.1	134.1	123.9	111.2	97.9
23. Belgium	105.4	102.5	100.0	97.5	111.2	108.4	102.6	103.1
24. Spain	102.0	101.2	99.8	97.7	119.3	115.7	109.5	105.1
25. France	98.2	98.8	98.6	98.2	114.9	112.8	111.3	110.0
26. Italy	134.2	133.7	134.1	133.8	154.3	145.7	138.3	134.8
27. Greece	183.1	182.1	189.0	183.2	209.4	197.3	177.0	163.9

Source: Prepared by the authors based on Eurostat data (https://ec.europa.eu/eurostat/databrowser/view/GOV_10Q_GGDEBT__custom_159473/bookmark/table?lang=en&bookmarkId=fb4f5a54-7857-4e10-970b-8dc0e5350384)

Annex 3. Public debt in the Republic of Moldova

Debt balance	M. U.	2016	2017	2018	2019	2020	2021	2022	2023	2024
State debt	Mil. MDL	50785.8	51660.3	52012.5	52822.0	67820.7	77752.7	94660.0	104003.1	121394.0
	% in GDP	31.9	29.4	27.5	25.6	34.0	32.1	34.5	34.6	37.49
	% în total	84.64	88.38	89.86	91.17	93.37	95.02	95.62	95.98	96.68
National Bank of Moldova debt	Mil. MDL	5839.9	4519.4	3733.7	3106.5	2429.2	1639.5	1229.1	1038.4	880.7
	% în PIB	3.7	2.6	2.0	1.5	1.2	0.7	0.4	0.3	0.3
Debt of public sector enterprises	Mil. MDL	3317.3	3048.8	3299.1	3362.1	3961.7	3404.0	7 387.2	5662.7	8053.1
	% în PIB	2.1	1.7	1.7	1.6	2.0	1.4	2.5	1.7	2.5
Debt of TAU	Mil. MDL	1551.4	1106.6	1013.9	951.2	1245.6	1675.1	1943.6	2399.8	2390.6
	% în PIB	1.0	0.6	0.5	0.5	0.6	0.7	0.7	0.8	0.7
	Mil.	59303.0	58451.5	57881.3	57932.5	72639.4	81828.3	98992.7	108355.9	125567.0

Total public debt	MDL									
	% în PIB	**37.3**	**33.2**	**30.6**	**28.1**	**36.4**	**33.8**	**35.9**	**35.9**	**38.8**

Source: Prepared by the authors based on data from the Annual Reports on the situation in the field of public debt, state guarantees and state refinancing for the years 2016-2024 (https://mf.gov.md/ro/categoria-documentului/rapoarte-privind-datoria).

Annex 4. Budget deficit in EU member countries, % of GDP

	2016	2017	2018	2019	2020	2021	2022	2023
EU	**-1.4**	**-0.9**	**-0.4**	**-0.5**	**-6.7**	**-4.6**	**-3.2**	**-3.5**
Euro Zone - 19 states	**-1.5**	**-1.0**	**-0.4**	**-0.5**	**-7.0**	**-5.1**	**-3.5**	**-3.6**
1. Denmark	0.3	1.7	0.8	4.3	0.4	4.1	3.4	3.3
2. Cyprus	0.5	2.1	-3.4	1.0	-5.6	-1.6	2.6	2.0
3. Ireland	-0.8	-0.3	0.1	0.4	-4.9	-1.4	1.7	1.5
4. Portugal	-1.9	-3.0	-0.4	0.1	-5.8	-2.8	-0.3	1.2
5. Netherlands	0.2	1.3	1.5	1.8	-3.6	-2.2	0.0	-0.4
6. Sweden	0.9	1.3	0.7	0.4	-3.2	-0.1	1.0	-0.6
7. Lithuania	0.0	0.4	0.6	0.5	-6.3	-1.1	-0.7	-0.7
8. Luxembourg	1.9	1.4	3.2	2.7	-3.1	1.0	0.2	-0.7
9. Croatia	-1.0	0.5	0.0	0.2	-7.2	-2.6	0.1	-0.9
10. Greece	0.2	0.7	0.9	0.8	-9.6	-6.9	-2.5	-1.3
11. Bulgaria	0.3	1.6	1.7	2.2	-3.8	-3.9	-2.9	-2.0
12. Latvia	0.0	-0.3	-1.4	-0.2	-4.1	-7.2	-4.9	-2.4
13. Germany	1.1	1.3	1.9	1.3	-4.4	-3.2	-2.1	-2.6
14. Austria	-1.5	-0.8	0.2	0.5	-8.2	-5.7	-3.3	-2.6
15. Slovenia	-2.0	0.1	0.9	0.7	-7.7	-4.6	-3.0	-2.6
16. Estonia	-0.1	-0.5	-0.6	-0.1	-5.4	-2.6	-1.1	-2.8
17. Finland	-1.7	-0.6	-0.9	-0.9	-5.5	-2.7	-0.2	-3.0
18. Spain	-4.2	-3.1	-2.6	-3.1	-9.9	-6.7	-4.6	-3.5
19. Czech Republic	0.7	1.5	0.9	0.3	-5.6	-5.0	-3.1	-3.8
20. Belgium	-2.4	-0.8	-1.0	-2.0	-9.0	-5.4	-3.6	-4.2
21. Malta	1.1	3.4	1.9	0.7	-8.7	-7.0	-5.2	-4.5
22. Slovakia	-2.6	-1.0	-1.0	-1.2	-5.3	-5.1	-1.7	-5.2
23. Poland	-2.4	-1.5	-0.2	-0.7	-6.9	-1.7	-3.4	-5.3
24. France	-3.8	-3.4	-2.3	-2.4	-8.9	-6.6	-4.7	-5.5
25. Romania	-2.5	-2.5	-2.8	-4.3	-9.2	-7.1	-6.4	-6.5
26. Hungary	-1.8	-2.5	-2.0	-2.0	-7.5	-7.1	-6.2	-6.7
27. Italy	-2.4	-2.5	-2.2	-1.5	-9.4	-8.9	-8.1	-7.2

Source: Prepared by the authors based on Eurostat data (https://ec.europa.eu/eurostat/databrowser/view/gov_10dd_edpt1/default/table?lang=en)