

# SUSTAINABILITY OF ROMANIA'S SOVEREIGN DEBT SERVICE – BETWEEN THE PRINCIPLE OF FISCAL PRUDENCE AND THE ETHICS OF GOVERNMENTAL RESPONSIBILITY

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## Abstract:

*This research analyzes the sustainability of Romania's sovereign public debt through an integrated approach that combines macro-financial assessment with the ethical dimension of fiscal governance. The main objective is to examine whether the evolution of public debt is compatible with medium- and long-term fiscal stability, while also highlighting the economic and moral implications of borrowing policies implemented during the period 2018–2024. The analysis focuses on relevant indicators such as the public debt-to-GDP ratio, debt service as a share of budgetary revenues, the maturity and currency structure of debt, and the weighted average cost of financing.*

*The research methodology is predominantly quantitative, based on the analysis of macro-financial indicators commonly used in the academic literature and by international institutions, complemented by a qualitative interpretation of the conceptual and ethical implications. Empirical data are drawn from official statistical sources and are examined through graphical trends relevant to fiscal sustainability.*

*The results indicate a gradual deterioration in the sustainability of sovereign debt, reflected in the rising debt-to-GDP ratio, increasing interest payment pressures on the public budget, and a higher cost of financing. Although the maturity structure mitigates the immediate refinancing risk, foreign currency exposure remains a significant vulnerability.*

*The theoretical implications emphasize the link between fiscal sustainability and intergenerational ethical responsibility, while the practical implications highlight the need for fiscal consolidation, the efficient use of borrowed funds, and the grounding of debt policies in criteria of public value.*

**Key words:** sovereign debt, fiscal sustainability, public debt service, budgetary prudence, ethics of governmental responsibility

**JEL Classification:** H63

## 1. INTRODUCTION

The sustainability of sovereign debt servicing represents one of the most sensitive and decisive components of a modern state's fiscal and budgetary policy, with direct implications for macro-financial stability, the credibility of the state on financial markets, and intergenerational equity. In recent years, marked by successive crises — pandemic-related, energy-driven, and geopolitical — the level of public indebtedness has increased at an accelerated pace, while the costs associated with debt servicing have become an increasingly visible budgetary constraint. In Romania's case, this evolution raises structural concerns regarding the state's capacity to finance deficits in a sustainable manner and to manage the mounting pressures on the public budget.

The research problem addressed in this paper consists of assessing Romania's ability to sustain sovereign debt service over the medium term, under conditions of a rapidly growing debt stock, rising financing costs, and a relatively rigid fiscal base. The question arises as to whether the current debt trajectory is compatible with fiscal stability and the principles of budgetary prudence, or whether it instead generates systemic risks and social costs transferred to future generations.

The general objective of the research is to evaluate the degree of sustainability of Romania's sovereign debt service.

The specific objectives are:

- to analyze the evolution of the main budgetary and macro-financial indicators relevant to debt servicing;
- to identify fiscal risks associated with rising financing costs;

- to assess borrowing policies from the perspective of fiscal prudence;
- to integrate an ethical perspective regarding governmental responsibility and intergenerational equity.

The research is guided by the following questions:

- To what extent is Romania's sovereign debt service sustainable in the current macroeconomic context?
- What are the main factors influencing the pressure of debt servicing on the public budget?
- Is there a risk of structural deterioration in fiscal sustainability in the absence of budgetary consolidation?

The main hypothesis of the study is that, although Romania's sovereign debt remains technically manageable, the current dynamics of costs and budget deficits indicate a progressive deterioration of debt service sustainability.

The importance of the study stems both from its economic relevance and from its institutional and moral dimension. The analysis of debt service sustainability contributes to understanding the real limits of fiscal policy and provides a useful framework for supporting public decision-making. From a professional perspective, the research capitalizes on practical experience in the field of public finance, facilitating the correlation between theoretical analysis and the administrative realities of budget execution.

The paper focuses on the recent period 2018–2024 and employs standard macro-financial indicators to evaluate the sustainability of sovereign debt service. The analysis does not include complex econometric modeling or stochastic scenarios, being limited instead to the interpretation of empirical and conceptual developments. Moreover, the study does not pursue detailed international comparisons, but focuses exclusively on the case of Romania, with the aim of providing an in-depth and contextualized analysis.

## 2. LITERATURE REVIEW

The economic literature on public debt and the sustainability of sovereign debt service highlights the fact that indebtedness is not inherently problematic, but becomes a concern when debt dynamics exceed the state's capacity to meet its obligations without costly fiscal adjustments (Escolano, 2010; IMF, 2022). Classical analyses are grounded in the principle of intertemporal solvency, according to which debt is sustainable if the government can generate future primary surpluses sufficient to cover debt service (Reinhart & Rogoff, 2010).

An important theoretical direction addresses the relationship between the interest rate and the economic growth rate. According to this approach, sustainability can be maintained even under persistent deficits, as long as the growth rate of GDP exceeds the cost of debt financing (Blanchard, 2019). Recent literature, however, warns that this relationship is unstable in emerging economies, where macroeconomic volatility and external shocks can rapidly amplify fiscal risks (Wyplosz, 2020).

Another relevant strand of research focuses on the structure of public debt. Studies show that a high share of foreign currency-denominated debt and a concentration of short-term maturities increase budgetary vulnerability and refinancing risk (Panizza & Presbitero, 2014; OECD, 2023). At the same time, contemporary literature increasingly integrates the ethical and institutional dimension of indebtedness, emphasizing the role of governmental responsibility and intergenerational equity in evaluating fiscal sustainability (Stiglitz, 2020).

Although the literature provides extensive analyses of public debt sustainability, most studies focus on the overall debt level or on the debt–growth relationship, paying limited attention to debt service as a distinct budgetary pressure. In Romania's case, existing research remains fragmented and primarily targets the debt stock, without systematically examining financing costs, interest rate dynamics, and their impact on fiscal space, particularly in the post-pandemic context.

The present paper addresses this gap through an integrated analysis of Romania's sovereign debt service sustainability, linking macro-financial indicators with the principles of fiscal prudence and governmental responsibility.

### **3. RESEARCH METHODOLOGY**

#### **Research Design**

The research follows a descriptive–analytical design, combining quantitative and qualitative components, and is aimed at evaluating the sustainability of Romania's sovereign debt service over the period 2018–2024.

#### **Data Sources**

Empirical data are drawn from official national and international sources (Ministry of Finance, National Bank of Romania, National Institute of Statistics, and international organizations). These data are used to compute the relevant fiscal and budgetary indicators.

#### **Indicators Analyzed**

The study focuses on the following key indicators:

- the public debt-to-GDP ratio;
- debt service as a percentage of budgetary revenues;
- the maturity and currency structure of public debt;
- the weighted average cost of financing.

#### **Methods of Analysis**

The quantitative analysis relies on descriptive techniques, time-based comparative analysis, and the interpretation of graphical trends in the selected indicators. The qualitative component includes the interpretation of results within a theoretical and normative framework, correlated with the principles of fiscal prudence and governmental responsibility.

#### **Reference Period**

The period 2018–2024 is selected in order to capture recent developments and medium-term trends in debt sustainability.

#### **Limitations**

The study does not incorporate complex econometric modeling and focuses exclusively on the case of Romania. While this limits the generalizability of the results, it allows for a detailed and contextualized assessment.

## **CHAPTER I. THEORETICAL AND CONCEPTUAL FRAMEWORK OF SOVEREIGN DEBT ANALYSIS**

### **1.1. CONCEPTUALIZATION OF SOVEREIGN PUBLIC DEBT**

Public debt represents the total financial obligations contracted by the state to finance the budget deficit or to support strategic economic and social objectives. In the specialized literature, public debt is associated with the idea of intertemporal resource transfer, meaning that current financing needs may be covered through future resources derived from the tax revenues of subsequent generations.

Sovereign debt, the central component of this analysis, refers to financial obligations guaranteed by the state and undertaken in its own name, toward both domestic and foreign creditors. It implies a contractual relationship between the state, as debtor, and financial institutions, private investors, or international organizations that hold government debt instruments. The particularity of sovereign debt lies in the fact that the state cannot be subjected to a bankruptcy regime similar to that

of private entities, which grants sovereign debt a distinct legal and economic status, influenced by fiscal credibility and country rating.

## 1.2. SUSTAINABILITY OF PUBLIC DEBT

The concept of fiscal sustainability reflects the ability of a state to meet long-term debt obligations without requiring excessive fiscal adjustments and without compromising economic stability. Debt is considered sustainable when its servicing can be funded from stable fiscal revenues and predictable economic policies, ensuring that debt dynamics remain compatible with the rate of GDP growth (Barro, 2019; Blanchard, 2021).

Two major theoretical approaches regarding public debt sustainability emerge in financial literature:

The macroeconomic solvency perspective, which states that debt remains sustainable if the government can generate sufficient primary surpluses to cover future obligations (Reinhart & Rogoff, 2010; Panizza & Presbitero, 2014). In this view, fiscal discipline and the state's capacity to generate revenue are essential to avoiding a credibility crisis.

The dynamic equilibrium perspective, which asserts that sustainability is ensured when the interest rate remains below the long-term economic growth rate (Blanchard, 2019; Wyplosz, 2020). Under these conditions, the economy expands fast enough to absorb existing debt without entering a potentially explosive accumulation cycle.

In practice, fiscal sustainability results from a complex interaction of multiple interdependent factors: the maturity structure of the debt portfolio, the share of foreign-currency-denominated debt, real interest rate evolution, investor confidence, fiscal discipline, geopolitical pressures, and the degree of institutional transparency and accountability (Escolano, 2010; Stiglitz, 2020; OECD, 2023). The interplay of these variables determines whether debt remains manageable and socially acceptable or becomes a persistent burden on the public budget and future generations.

## 1.3. INDICATORS FOR ASSESSING PUBLIC DEBT SUSTAINABILITY

Macroeconomic analysis uses a series of quantitative indicators to evaluate risk and budgetary pressures associated with public debt:

- Gross public debt as a share of GDP – a benchmark indicator for international comparison
- Debt service as a percentage of budget revenues – reflects fiscal resource strain
- Maturity structure and repayment schedule – relevant for refinancing risk
- Share of foreign-currency-denominated debt – reflects exchange rate vulnerability
- Weighted average cost of debt financing – influenced by monetary policy and country rating

These indicators allow the construction of a sustainability diagnostic by correlating historical trends with prospective macro-financial risk scenarios.

## 1.4. FISCAL PRUDENCE – A CONCEPTUAL FOUNDATION

Fiscal prudence expresses the obligation of the state to manage public finances in a balanced manner, avoiding excessive debt accumulation and preserving the capacity to respond economically in times of crisis. The principle of prudence is reflected through three essential dimensions:

1. limiting the budget deficit relative to fiscal potential;
2. using borrowed funds efficiently and exclusively for purposes that generate public value;
3. ensuring transparency regarding future debt-servicing costs.

In the absence of fiscal prudence, public debt can become a persistent burden, negatively affecting investment levels, credit ratings, and macro-financial stability.

### **1.5. THE ETHICAL DIMENSION OF PUBLIC DEBT**

Sovereign debt management is not only a financial process but also a moral one. Borrowing decisions made today are repaid from the future income of citizens, raising questions of intergenerational equity. The principle of governmental responsibility implies justifying the necessity of debt, ensuring transparency in the use of borrowed funds, and grounding decisions in criteria of public interest.

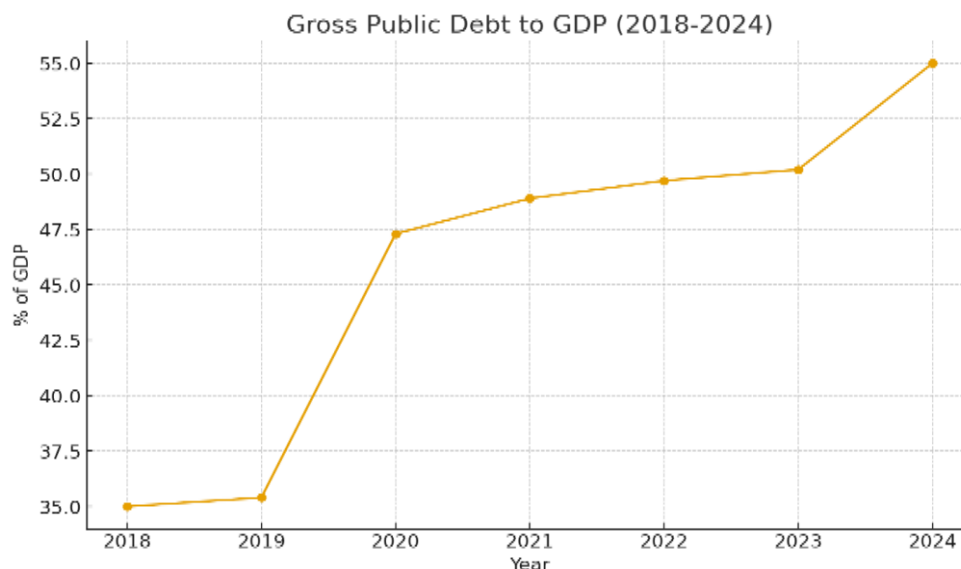
Fiscal ethics requires government authorities to avoid excessive indebtedness, protect macro-financial stability, and ensure that the benefits of borrowing exceed the long-term costs passed on to future generations. Thus, debt sustainability becomes not only a technical issue but also one of social legitimacy.

## **CHAPTER II. EMPIRICAL ANALYSIS OF ROMANIA'S SOVEREIGN DEBT SUSTAINABILITY INDICATORS**

From an empirical perspective, the sustainability of Romania's sovereign debt can be examined through the evolution of key macro-financial indicators: the public debt-to-GDP ratio, the pressure generated by debt service on budget revenues, the maturity structure of the debt portfolio, and its currency composition.

The structure of the debt portfolio represents another relevant dimension for sustainability assessment. According to reports published by the Ministry of Finance and analyses developed by international financial institutions, a significant share of Romania's public debt is denominated in foreign currency—primarily in euro—reaching or slightly exceeding 40% of the total debt stock. This composition increases exposure to exchange rate fluctuations and external financing conditions. Conversely, public debt management strategy documents indicate that the average maturity of the portfolio remained within target intervals, avoiding excessive short-term concentration, which helps mitigate refinancing risk. The issuance of Eurobonds on international markets, including “green bonds,” along with access to concessionary sources such as European financing instruments, contributes to funding diversification but simultaneously reinforces external dependence.

Overall, the empirical assessment highlights an upward trajectory of the public debt-to-GDP ratio and a visible increase in interest payment obligations, alongside a relatively balanced maturity structure, yet with a considerable degree of foreign-currency exposure. From a technical standpoint, Romania's sovereign debt remains manageable; however, in the absence of credible fiscal consolidation, current developments indicate a potential deterioration in sustainability indicators in the medium term.

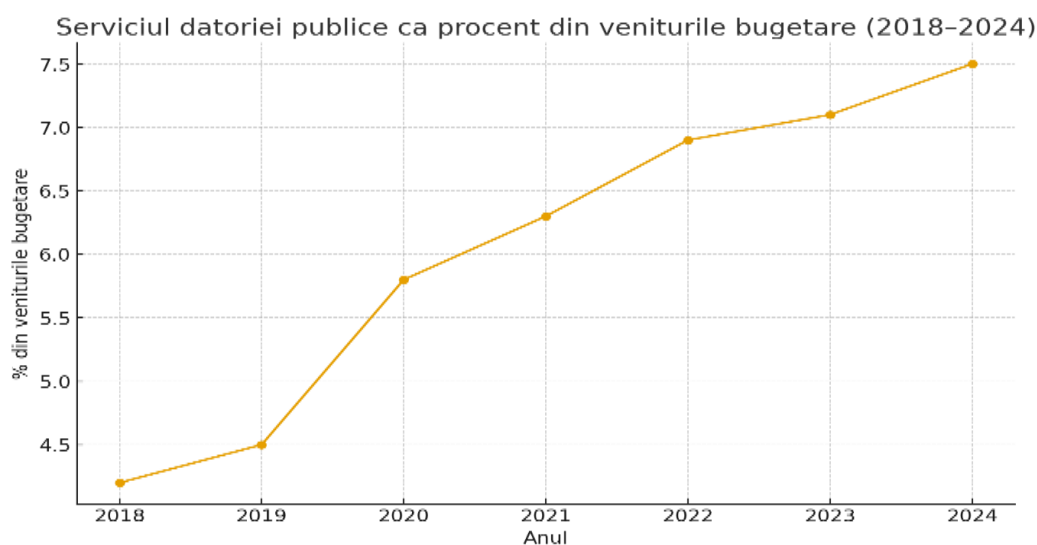


**Figure No. 1 – Romania’s public debt-to-gdp ratio (2018–2024).**

Data Source: mfinante.ro

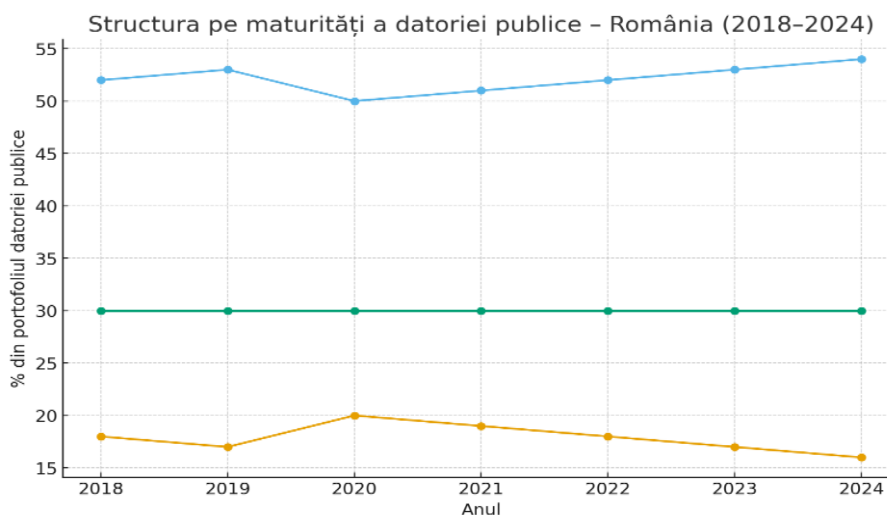
The chart highlights an accelerated increase in public debt as a share of GDP, with a major jump in 2020 driven by the pandemic crisis and the widening budget deficit. Subsequently, the upward trend remains persistent, exceeding 50% in 2023 and rising toward approximately 55% in 2024. This evolution indicates a progressive deterioration of fiscal sustainability, as the growth rate of public debt outpaces that of GDP, thereby reducing fiscal space and increasing vulnerability to macroeconomic shocks.

The next figure, Chart No. 2 — which refers to public debt service as a share of budget revenues — shows a continuous rise in the proportion of interest payments within total public revenues, moving from approximately 4–5% before the pandemic to over 7% in 2024. This trend reflects increasing pressure on the budget, as a growing share of fiscal income is redirected toward interest payments, reducing the resources available for investment, education, healthcare, and infrastructure. The evolution confirms a weakening of public financing capacity and a rising opportunity cost in fiscal policy.



**Figure No. 2 – Public debt service as a share of budget revenues (2018–2024).**

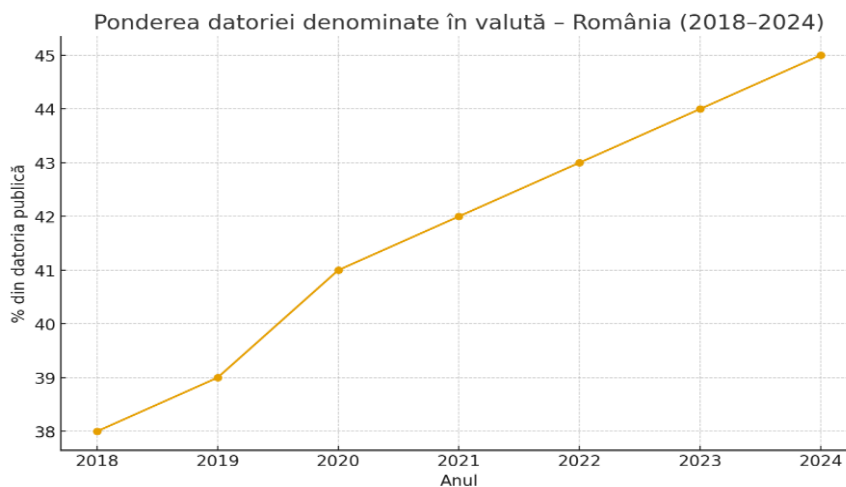
Data Source: mfinante.ro



**Figure No. 3. Maturity structure of public debt 2018-2024.**

Data Source:mfinante.ro

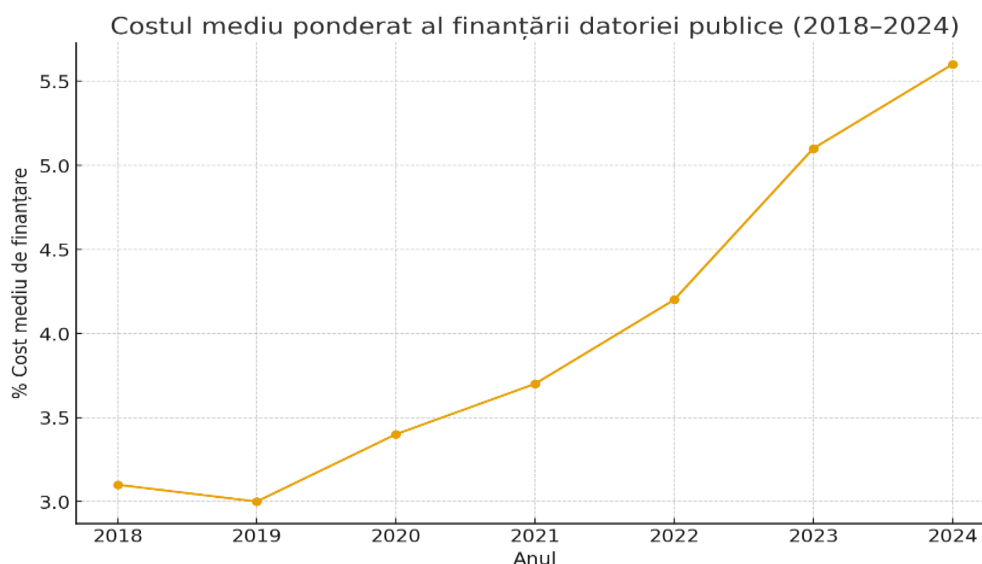
The maturity structure shows a relatively balanced distribution, with medium-term maturities dominating ( $\approx 50\text{--}54\%$ ) and a stable share of long-term debt ( $\approx 30\%$ ). Short-term obligations gradually decrease toward 16% in 2024, which reduces immediate refinancing risk. This structure is favorable from a sustainability perspective, as it limits vulnerability to rapid financial market fluctuations and provides greater stability to medium-term borrowing costs.



**Figure No.4. Share of foreign-currency-denominated debt 2018-2024.**

Data Source:mfinante.ro

The chart shows a continuous increase in the share of foreign-currency-denominated public debt, from approximately 38% in 2018 to around 45% in 2024. The expansion of external financing improves access to capital and diversifies borrowing sources, but at the same time increases vulnerability to exchange-rate fluctuations and international financing costs. In the medium term, this trend represents a systemic risk: depreciation of the leu or an increase in global interest rates translates directly into higher budgetary costs.



**Figure No.5. The price average cost of public debt 2018-2024.**

Data Source:mfinante.ro

The weighted average cost of public debt financing (WACD – The Price Average Cost of Debt) is not merely an interest rate, but an average adjusted according to the share of each debt instrument within the total public debt stock.

In other words, the interest rates associated with short-, medium-, and long-term securities, as well as other instruments (external loans, Eurobonds, etc.), do not carry the same weight. Each category contributes to the total cost proportionally to its share in the overall debt structure.

$$\text{Cost mediu ponderat} = \sum_{i=1}^n \left( r_i \cdot \frac{D_i}{\sum D} \right)$$

where:

$r_{i,i}$	the average interest rate for instrument $i$
$D_{i,i}$	the value of debt type $i$
$\sum D$	the total public debt
$\frac{D_i}{\sum D}$	the share (or weight) of debt type $i$ in the total

In budgetary practice, the weighting is carried out using:

1. **The weighting of instruments within the total debt stock** (short-, medium-, and long-term securities, Eurobonds, unilateral loans);
2. **The currency of issuance** – the cost of Eurobonds differs from the cost of instruments issued in lei;
3. **Maturity** – short-term securities tend to have more volatile rates, therefore they carry a more sensitive weighting;
4. **Type of financing** – domestic versus external, fixed versus variable (ROBOR/ROBID, EURIBOR).

In Romania, the calculation structure most frequently used is:

$$WACD = r_{int} \cdot w_{int} + r_{ext} \cdot w_{ext}$$

meaning that interest rates are weighted according to the share of debt by currency / maturity / instrument.

where:

$r_{intr}$	the average interest rate on domestic debt
$r_{extr}$	the average interest rate on external debt
$W_{int} = D_{int} \setminus D_{tot}$	the share (or weight) of domestic debt in total debt
$W_{ext} = D_{ext} \setminus D_{tot}$	the share of external debt in total debt

Figure No. 5 illustrates the evolution of the weighted average cost of public debt financing, an indicator that reflects how much the state effectively pays for each unit of borrowed currency, depending on the structure of its financing instruments. The trend is clearly upward.

The sharp increase observed after 2022 indicates both the rise in interest rates on international and domestic financial markets and the deterioration of Romania's perceived fiscal risk, amplified by large budget deficits and a growing borrowing requirement. This escalation shows that the state is financing its debt at an increasingly higher cost, which transmits directly into the public budget by increasing interest expenditure and reducing the fiscal space available for investment.

In terms of financial sustainability, the indicator signals a potential spiral effect: rising debt leads to higher interest rates, which in turn further increase future financing pressure.

### **CHAPTER III. ETHICAL EVALUATION AND IMPLICATIONS FOR FISCAL GOVERNANCE**

#### **III.1. SYNTHETIC ASSESSMENT OF FISCAL SUSTAINABILITY BASED ON THE ANALYZED INDICATORS**

The analysis of the budgetary and macro-financial indicators presented in the five charts outlines a complex picture of Romania's fiscal sustainability during the period 2018–2024. The upward trajectory of public debt relative to GDP, accompanied by the increase in debt service costs as a share of budget revenues, indicates a gradual deterioration of fiscal fundamentals. The state allocates a growing proportion of its resources annually to interest payments, a trend that restricts the fiscal space available for productive investment and limits the government's ability to respond to potential economic shocks.

In parallel, the maturity structure of public debt reflects an element of stability: the reduction in short-term obligations and the maintenance of medium- and long-term maturities at balanced levels decrease immediate refinancing risk and delay aggressive repayment pressure.

However, the most concerning signal arises from the evolution of the weighted average cost of financing, which has almost doubled over the analyzed period. This trend confirms that the state is financing its debt at increasingly higher costs, reflecting both global macroeconomic conditions and the perception of domestic fiscal risk.

By aggregating all indicators, it can be stated that Romania's fiscal sustainability lies within a controlled yet vulnerable zone, with a clear tendency toward weakening. There are positive aspects in the maturity profile, but the rising debt trend, elevated financing costs, and growing interest burden on the budget require fiscal consolidation measures, diversification of funding sources, and increased efficiency in public expenditure management.

### **III.2. THE ETHICS OF GOVERNMENTAL RESPONSIBILITY – REFLECTIONS BASED ON THE ANALYZED BUDGETARY INDICATORS**

The assessment of public debt dynamics, the budgetary effort required to service it, the maturity profile, the share of foreign-currency-denominated debt, and the weighted average cost of borrowing inevitably leads to a dimension that extends beyond technical analysis: the moral responsibility of government in the use of collective financial resources.

The increase in public debt as a share of GDP and the intensifying burden of interest payments on budget revenues represent not only macroeconomic vulnerabilities but also ethical dilemmas. Each additional percentage point in debt servicing costs translates into fewer resources available for healthcare, education, infrastructure, social programs, or competitive development. From this perspective, borrowing policy cannot be evaluated solely in terms of access to financing, but also through the lens of intergenerational equity: what portion of today's financial burden is being transferred onto future taxpayers?

The maturity structure of public debt reveals a relatively prudent strategy that limits short-term refinancing risks. However, this technical stability cannot fully offset the rising exposure to foreign-currency debt, as a state that finances nearly half of its obligations in external currency faces an additional moral risk: external volatility may penalize domestic public finances even when citizens have not directly or proportionally benefited from such borrowing.

The strongest ethical argument stems from the sharp increase in the weighted average cost of financing, which has almost doubled over the analyzed period. This rise suggests that present fiscal decisions compound negatively over time, and inefficient debt management may generate a persistent and increasingly expensive borrowing cycle, gradually eroding the foundation of financial solidarity between the state and its citizens. In this context, public responsibility ethics requires authorities to justify every loan through measurable social utility and long-term impact.

Thus, beyond economic calculations, the charts make it evident that governmental responsibility is not merely financial — it is moral. The state has the obligation to balance the present with the future, immediate needs with the right of future generations to fiscal stability, development, and opportunity. A sustainable borrowing policy is, at its core, an ethical policy built on transparency, prudence, investment efficiency, and the prioritization of real public value over short-term gains.

## **4. RESULTS AND DISCUSSION**

The analysis of macro-financial indicators for the period 2018–2024 reveals a gradual deterioration in the sustainability of Romania's sovereign debt service. The public debt-to-GDP ratio recorded a significant increase, particularly after 2020, driven by the expansion of the budget deficit and successive economic shocks, which led to a reduction in fiscal space.

A key finding is the rising share of interest expenditures in budgetary revenues, indicating an increasingly structural pressure on the public budget. This evolution reflects both higher financing costs and a worsening perception of fiscal risk, with direct effects on the state's capacity to sustain productive public spending.

The maturity structure of public debt remains relatively balanced, with a decline in the share of short-term maturities, which limits immediate refinancing risk. However, the growing proportion of foreign currency-denominated debt increases vulnerability to exchange rate risk and external financial conditions.

The rise in the weighted average cost of financing represents the main warning signal of the analysis, suggesting the risk of a negative cumulative mechanism between debt levels and future borrowing costs. Overall, the results confirm that Romania's sovereign debt remains technically manageable, but is situated within an area of increasing vulnerability, requiring fiscal consolidation and a more prudent management of public borrowing.

## 5. CONCLUSIONS

This paper aimed to assess the sustainability of Romania's sovereign debt service through an integrated analysis of key macro-financial indicators and the ethical dimension of fiscal policy.

The results highlight a gradual deterioration of fiscal sustainability, reflected in the rising public debt-to-GDP ratio, the increasing pressure of interest payments on budgetary revenues, and the growing weighted average cost of financing. Although the debt maturity structure remains relatively balanced, elevated foreign currency exposure constitutes a significant vulnerability.

From a theoretical perspective, the study supports approaches that extend debt sustainability analysis beyond strictly quantitative criteria, incorporating governmental responsibility and intergenerational equity. At a practical level, the findings emphasize the need for fiscal consolidation, the efficient use of public borrowing, and a prudent debt management strategy.

The main limitations of the research lie in the descriptive nature of the analysis and the absence of econometric modeling, as well as in its exclusive focus on the Romanian case. Future research may expand the analysis through dynamic models, international comparisons, and an evaluation of the institutional impact of fiscal rules on long-term debt sustainability.

## FINAL NOTES

1. Barro, R. J. (2019/2023) – *Macroeconomics and Public Debt Policies*, Harvard University Press. Lucrare fundamentală privind relația datorie–creștere economică și cadrul de analiză al sustenabilității fiscale.
2. Blanchard, O. (2019) – *Public Debt and Low Interest Rates*, American Economic Review. Unul dintre cele mai influente articole moderne privind condiția  $r < g$  ca premisă pentru stabilitatea datoriei publice.
3. Blanchard, O. (2021) – *Fiscal Policy under Low Rates*, Peterson Institute for International Economics. Extinde modelul sustenabilității datoriei în condiții de dobânzi reduse și creștere moderată.
4. Reinhart, C. & Rogoff, K. (2010) – *Growth in a Time of Debt*, American Economic Review. Studiu de referință ce analizează empiric impactul datoriei publice asupra creșterii economice.
5. Panizza, U. & Presbitero, A. (2014) – *Public Debt and Economic Growth: Is There a Causal Link?*, Journal of Macroeconomics. Lucrare econometrică ce examinează legătura cauzală dintre îndatorare și creștere economică.
6. Wyplosz, C. (2020) – *The Failure of Fiscal Rules*, CEPR Policy Paper. Analiză critică a regulilor fiscale europene și a limitelor mecanismelor de disciplină bugetară.
7. Escolano, J. (2010) – *A Practical Guide to Public Debt Dynamics, Fiscal Sustainability, and Cyclical Adjustment*, IMF Technical Notes. Ghid tehnic de calcul al dinamicii datoriei, utilizat pe scară largă în analiza fiscală.
8. Stiglitz, J. (2020) – *Economics of the Public Sector* (ediție revizuită), W.W. Norton & Co. Manual major de economie publică, cu accent pe rolul statului și eficiența fiscală.
9. OECD (2023) – *Government at a Glance – Fiscal Sustainability Indicators*, OECD Publishing. Sursă internațională actualizată privind indicatori fiscali comparativi și evaluarea sustenabilității.

## REFERENCES

### Scientific Works, Academic Articles, and Economic Studies

1. Barro, R. J. (2019/2023). *Macroeconomics and Public Debt Policies*. Harvard University Press.  
A fundamental work on the relationship between public debt and economic growth.
2. Blanchard, O. (2021). *Fiscal Policy under Low Rates*. Peterson Institute for International Economics.  
Extends sustainability models in an environment of low interest rates.
3. Blanchard, O., & Leigh, D. (2019). Public Debt and Low Interest Rates. *American Economic Review*.  
Examines the implications of low interest rates for sovereign debt dynamics.
4. Ciaffi, G., Deleidi, M., & Di Domenico, L. (2024). Fiscal policy and public debt: Government investment is most effective to promote sustainability. *Journal of Policy Modeling*, 46(6), 1186–1209.  
Analyzes the role of public investment in promoting debt sustainability.
5. El-Naser, A., Dincă, G., & Dincă, M. S. (2025). Investigating the determinants of public debt sustainability for European Union countries. *Scientific Annals of Economics and Business*, 72(1), 21–40.  
Provides a recent empirical analysis of sustainability determinants within the EU.
6. Rafie, F. E. (2024). Public external debt sustainability assessment using cointegration and machine-learning methods. *Cogent Economics & Finance*.  
Offers a modern methodological approach to assessing sovereign external debt sustainability.
7. Seghini, C. (2024). Climate and sovereign debt sustainability: A literature review. *SSRN*.  
A recent review integrating climate change into sovereign debt sustainability analysis.
8. Wyplosz, C. (2019). *The Failure of Fiscal Rules*. CEPR Policy Papers.  
Discusses the structural limitations and challenges of fiscal rules.

### Institutional Sources, Statistics, and Official Reports

10. World Bank – *World Development Indicators*, Public Debt Data.
11. International Monetary Fund (IMF) – *Global Fiscal Monitor*, Fiscal Stability Reports.
12. OECD – *Government at a Glance & Public Finance Database*.
13. Eurostat – *General Government Statistics, Deficit and Debt Database*.
14. European Commission – *Country Report Romania*, Fiscal Sustainability Report.
15. Romanian Ministry of Public Finance – *Public Debt Management Strategy 2018–2024*.
16. Ministry of Finance – *Consolidated General Budget*, annual data series.
17. National Bank of Romania – *Annual Report & Financial Stability Report*.
18. Romanian Fiscal Council – *Analyses and opinions on public debt sustainability*.

### Relevant Legislation and Normative Documents

19. Law No. 500/2002 on Public Finance.
20. Fiscal Responsibility Law No. 69/2010.
21. Council Regulation (EU) No. 1466/1997 on the coordination of budgetary policies.
22. The Maastricht Treaty – fiscal discipline criteria.
23. EU Regulation on the Excessive Deficit Procedure (EDP).