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# PUBLIC DEBT MANAGEMENT IN ARMENIA: ASSESSING INSTITUTIONAL FRAMEWORKS AND STRATEGIC INTERVENTIONSS

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A B S T R A C T

*Over the past several years, Armenia has faced notable changes in its public debt trends, influenced by the consequences of the COVID-19 crisis, regional geopolitical tensions, and global economic disturbances. The level of government debt rose to over 63% of GDP during 2020–2021, subsequently falling to approximately 50% by 2023, primarily due to a robust economic recovery. The management of public debt in Armenia is carried out within an institutional setup that involves the Ministry of Finance, the Central Bank, and parliamentary supervision, though the country still does not have an autonomous debt management authority. External loans continue to constitute the largest share of Armenia's debt portfolio, which increases exposure to currency fluctuations and reliance on foreign lenders. To ensure debt sustainability, it is essential to adopt a medium-term debt strategy, broaden the domestic government securities market, and implement advanced tools for risk assessment and control. Enhancing the institutional system and harmonizing national practices with international standards will be vital for transforming the state debt policy into a framework that promotes long-term macroeconomic resilience and development.*



## 1. INTRODUCTION

Managing sovereign debt has become one of the key macroeconomic priorities for governments worldwide, particularly for small, open economies such as the Republic of Armenia that are highly sensitive to external and regional shocks (Gevorkyan, 2023). The COVID-19 outbreak, accompanied by geopolitical instability and fluctuations in global markets, placed considerable pressure on Armenia's public finances, resulting in a marked increase in state borrowing. During 2020–2021, the public debt ratio rose beyond 63% of GDP, raising concerns over fiscal resilience and sustainability. Nevertheless, the robust post-pandemic recovery of 2022–2023 enabled a decline in the indicator to roughly 50%, reflecting how economic growth performance and institutional strength jointly shape the trajectory of public debt.

The national debt framework is regulated through the Law on Public Debt and the State Budget Law, distributing the main responsibilities among the Ministry of Finance, the Central Bank of Armenia, and the National Assembly (Harutyunyan, 2016). Despite ensuring a formal structure for transparency and accountability, the system still falls short of international benchmarks, largely due to the absence of a specialized and autonomous debt-management agency (Wheeler, G. 2004). Furthermore, Armenia's debt profile remains heavily concentrated in foreign obligations, which heightens exchange-rate vulnerability and dependence on external financial institutions (Gevorkya, 2017).

In light of these issues, this research seeks to examine the institutional setup governing Armenia's debt policy,

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assess its recent outcomes, and offer practical recommendations for enhancing long-term sustainability. Aligning national practices with global standards, expanding the domestic bond market, and applying advanced analytical tools for risk evaluation could enable the formation of a resilient and forward-looking debt management system that strengthens macroeconomic stability and sustainable development prospects.

Over the past few years, debt governance has remained a central concern for Armenia's economic policymakers, particularly in the context of pandemic-related shocks and regional uncertainty (Matevosyan & Grigoryan, 2021; Grigoryan, 2021). During 2020–2021, the debt-to-GDP ratio climbed above 63%, intensifying discussions on fiscal prudence and policy credibility (Matevosyan et al., 2021; 2024c). Subsequent economic expansion in 2022–2023 contributed to a gradual moderation of this figure, reaffirming the strong linkage between macroeconomic conditions and public debt dynamics (Asian Development Bank [ADB], 2024; World Bank, 2024).

The institutional configuration for debt operations, comprising the Ministry of Finance, the Central Bank, and parliamentary control mechanisms, functions effectively within its current mandate. However, the lack of an independent coordinating body continues to constrain policy coherence and efficiency (Matevosyan & Grigoryan, 2024a; Matevosyan et al., 2025). Scholars emphasize the urgency of institutional modernization, including the adoption of quantitative risk-assessment methodologies and performance-based management systems, as essential steps toward building a sustainable and transparent public debt framework (Matevosyan et al., 2024b; Grigoryan, 2025).

## 2. LITERATURE REVIEW

Grigoryan (2021) explores the issue of Armenia's debt stability within the broader context of the Artsakh conflict, illustrating how political and military shocks can severely undermine the sustainability of public debt. The research underscores the importance of strategic forecasting and preventive management instruments to mitigate such fiscal vulnerabilities.

In their joint study, Matevosyan and Grigoryan (2021) apply the IMF MAC DSA methodology to assess Armenia's debt sustainability. Their findings indicate that the effectiveness of debt management depends not only on the quantitative size of public debt but also on the strength of macroeconomic fundamentals and the institutional quality of fiscal governance. The authors also highlight the importance of standardized reporting systems and continuous debt monitoring.

In "The Philosophy of External Public Debt Management," Matevosyan and Grigoryan (2022) present a conceptual framework for long-term strategic planning in managing external liabilities. The research argues that maintaining a balance between debt sustainability and economic expansion requires a system of coordinated and transparent governance mechanisms.

The study titled "Proposed Board of Public Debt Burden Assessment" introduces the idea of creating an independent body dedicated to evaluating the nation's debt burden. Such an institution, according to the authors, would enhance public accountability and policy transparency (Matevosyan & Grigoryan, 2023c).

In another work, "RA State Debt Servicing Capacity in Collapse Situations," the same authors examine the resilience of Armenia's fiscal system during financial or geopolitical crises. They stress the need to maintain liquidity reserves and implement risk evaluation models to safeguard debt servicing capabilities amid market instability (Matevosyan & Grigoryan, 2023d).

A separate investigation titled "Interaction between External Public Debt and Macroeconomic Indicators in Armenia" utilizes Spearman rank correlation analysis to explore the statistical relationship between macroeconomic performance and debt sustainability, confirming that stable economic growth is a key determinant of debt viability (Matevosyan & Grigoryan, 2023b).

In "Features of Location of State Debt Management Agency Institute in the Republic of Armenia," Matevosyan and Grigoryan (2024a) focus on the organizational architecture of debt management. They advocate for a centralized institutional model that consolidates oversight and operational efficiency in public debt administration.

The paper "Approach to Improving the Management of the External Public Debt of the Republic of Armenia According to the Shapiro-Wilk Test" offers a quantitative risk analysis based on Spearman correlation and the Shapiro-Wilk statistical test, providing an empirical foundation for evaluating external debt risks (Matevosyan et al., 2024b).

In "Public Debt as an Indicator of Economic Security," Matevosyan, Matevosyan, and Grigoryan (2024c) conceptualize public debt as a proxy for national economic security, recommending the integration of analytical forecasting tools to strengthen debt sustainability assessments.

The monograph "The Philosophy of External Public Debt Management" (Grigoryan, 2025) further advances a strategic and philosophical approach to debt governance, emphasizing comprehensive institutional reforms and a long-term sustainability mindset.

Finally, the research "Economics Institutional Framework and Proposed Solutions Regarding Debt Policy: Evidence from Armenia and Georgia" offers a comparative institutional analysis of both countries' debt policies, proposing policy adjustments grounded in international best practices (Matevosyan et al., 2025).

## 3. METHODOLOGY

This research applies a mixed-methods design, integrating quantitative and qualitative techniques to evaluate Armenia's public debt management framework, institutional mechanisms, and proposed policy improvements. The methodological structure consists of three main stages, ensuring both analytical depth and empirical reliability.

### 3.1 Data Collection

The analysis relies on primary and secondary data sources.

- Secondary data include macroeconomic and fiscal indicators retrieved from the Ministry of Finance of the Republic of Armenia (2023), the World Bank (2022, 2024), and the Asian Development Bank [ADB] (2024). The dataset includes figures on government debt, servicing ratios, GDP dynamics, inflation, and foreign debt levels for the period 2015–2024 (IMF, 2021, 2023; World Bank, 2022).
- Academic literature is used to provide a theoretical foundation. Peer-reviewed research published between 2021 and 2025 was analyzed. The reviewed works address institutional structures, risk evaluation tools, and advanced practices in public debt management (Grigoryan, 2021, 2025; Matevosyan et al., 2021, 2022, 2023a, 2023b, 2023c, 2023d, 2024a, 2024b, 2025).

### 3.2 Analytical Procedures

A set of statistical and qualitative instruments was employed to assess debt sustainability and institutional efficiency:

- Descriptive analysis: Indicators such as the debt-to-GDP ratio, servicing costs, and growth trends were computed to reveal the dynamics of Armenia's debt position over time (Matevosyan et al., 2021, 2023b).
- Correlation analysis: The Spearman rank correlation coefficient was used to identify the relationship between macroeconomic variables: GDP, inflation, economic growth, and external debt levels (Matevosyan et al., 2023b, 2024b).
- Normality testing: The Shapiro-Wilk test was applied to verify the distribution of the data and confirm the robustness of the correlation results (Matevosyan et al., 2024b).
- Comparative institutional review: The institutional setting of Armenia was benchmarked against Georgia's debt management model to identify strengths, weaknesses, and potential reform directions (Matevosyan et al., 2025).

### 3.3 Risk Evaluation and Scenario Modelling

- Stress testing: Alternative macroeconomic scenarios (e.g., external shocks and currency volatility) were simulated to assess Armenia's capacity to withstand debt-related pressures (Grigoryan, 2021; Matevosyan et al., 2023d).
- Policy simulation: Hypothetical implementation of institutional reforms, particularly the creation of a centralized Debt Management Agency, was modeled to forecast its potential influence on transparency, efficiency, and sustainability (Matevosyan et al., 2023c, 2024a, 2025).

### 3.4 Methodological Justification

The integration of empirical data, statistical modeling, and institutional comparison ensures a comprehensive approach to evaluating Armenia's debt governance. Quantitative analysis provides objectivity and precision, while qualitative insights from comparative frameworks support practical policy recommendations (Grigoryan, 2025; Matevosyan & Grigoryan, 2022).

## 4. RESULTS AND DISCUSSION

In 2015–2024, Armenia's total government debt rose from approximately 40% of GDP to a peak of 63% in 2021, primarily due to emergency fiscal interventions amid the COVID-19 pandemic and regional instability (Matevosyan et al., 2021; Ministry of Finance of the Republic of Armenia, 2023). By 2024, the ratio declined to roughly 50%, reflecting the effects of economic recovery and enhanced fiscal management (World Bank, 2024; ADB, 2024).

The upward trend until 2021 largely resulted from crisis-related borrowing, whereas the subsequent reduction illustrates post-pandemic stabilization, improved budgetary discipline, and more strategic debt operations (Table 1) (Matevosyan & Grigoryan, 2023a).

**Table 1.** Armenia's public debt trends (2015–2024)

| Year | Public debt ($ billion) | Debt-to-GDP (%) | Debt Service (% of Revenues) |
|---|---|---|---|
| 2015 | 6.5 | 40 | 18 |
| 2018 | 8.1 | 44 | 20 |
| 2020 | 11.0 | 58 | 25 |
| 2021 | 12.5 | 63 | 28 |
| 2024 | 10.8 | 50 | 22 |

*Source:* Compiled by the author based on the Ministry of Finance of the Republic of Armenia (2023), the World Bank (2024), and the ADB (2024).

### 4.1 Correlation Analysis

The Spearman rank correlation method was employed to assess the relationships between key macroeconomic indicators and Armenia's external public debt. The analysis revealed a strong positive association between GDP growth and debt sustainability measures ($\rho = 0.76$, $p < 0.05$), whereas inflation exhibited a weaker, negative relationship with debt stability ($\rho = -0.42$, $p > 0.05$) (Matevosyan et al., 2023b, 2024b).

These findings indicate that sustained economic growth plays a crucial role in keeping debt levels manageable, reinforcing the theoretical propositions and empirical models discussed in prior studies (Matevosyan et al., 2024c; Grigoryan, 2025).

### 4.2 Stress Testing and Scenario Modeling

Three hypothetical macroeconomic scenarios were developed to evaluate potential impacts on Armenia's debt position:

- Baseline scenario assumes moderate and stable GDP growth of 4%–5%, under which debt remains within sustainable levels;
- Adverse shock scenario simulates a 5% contraction in GDP accompanied by a 15% currency depreciation, causing the debt-to-GDP ratio to exceed 65% and significantly increasing the debt servicing burden (Grigoryan, 2021; Matevosyan et al., 2023d);
- Policy reform scenario incorporates the establishment of a centralized Debt Management Agency, which enhances fiscal transparency, lowers interest costs, and stabilizes the debt service ratio even under adverse macroeconomic conditions (Matevosyan et al., 2023c, 2024a, 2025).

This approach allows for a comprehensive assessment of debt resilience under varying economic circumstances and demonstrates how institutional reforms can mitigate risks while supporting sustainable public debt management (Table 2).

**Table 2.** Debt-to-GDP under different scenarios (2024–2026)

| Scenario | 2024 | 2025 | 2026 |
|---|---|---|---|
| Baseline | 50% | 49% | 48% |
| Adverse | 50% | 60% | 65% |
| Policy reform | 50% | 48% | 47% |

*Source:* Compiled by the author based on the Ministry of Finance of the Republic of Armenia (2023)

These simulation exercises illustrate that enhancing institutional arrangements and strengthening debt governance mechanisms can markedly decrease the economy's susceptibility to external shocks.

The findings suggest that the sustainability of Armenia's public debt is highly dependent on economic performance and the capacity of institutional frameworks. Quantitative results indicate that robust GDP growth contributes positively to debt management, whereas negative economic disturbances can rapidly undermine fiscal stability (Matevosyan et al., 2023b, 2024b).

Comparative analysis with Georgia's institutional structure reveals that centralized debt management systems improve transparency and accountability, consistent with recommendations derived from international best practices (Matevosyan et al., 2025).

Moreover, stress-testing scenarios underscore the critical importance of proactive policy interventions, including the establishment of independent debt management agencies and the refinement of risk evaluation frameworks. These results reinforce prior studies emphasizing that sustainable debt management relies on a holistic integration of economic, institutional, and strategic considerations (Grigoryan, 2025; Matevosyan et al., 2022).

## 5. CONCLUSION

This research investigated Armenia's public debt management system, its underlying institutional structures, and potential strategies to enhance debt sustainability. The conducted analysis yields the following key insights:

- During 2020–2021, Armenia experienced a significant rise in public debt due to COVID-19-related fiscal measures and regional instability, followed by a gradual reduction by 2024 as the economy recovered;
- Quantitative evaluations, including correlation analysis and the Shapiro–Wilk test, suggest that sustained GDP growth facilitates manageable debt levels, whereas adverse economic shocks can swiftly elevate the debt-to-GDP ratio;
- Comparative institutional assessment indicates that centralized debt management frameworks, similar to those observed in Georgia, enhance transparency, accountability, and overall policy effectiveness;
- Stress testing and scenario simulations underscore the importance of forward-looking policy measures, such as advanced risk assessment tools and institutional reforms, to mitigate vulnerability to both external and domestic shocks.

The findings collectively highlight that Armenia's debt sustainability is influenced not only by macroeconomic performance but also by the strength and effectiveness of institutional mechanisms and strategic policy planning.

Based on these results, the following policy recommendations are proposed to improve the efficiency and resilience of Armenia's public debt management:

1. Establish a centralized debt management agency: Develop an independent institution tasked with monitoring, evaluating, and reporting on public debt to increase transparency and reduce inefficiencies;
2. Enhance risk assessment tools: Apply advanced statistical and econometric techniques, including Spearman rank correlation and stress testing, to identify and anticipate debt vulnerabilities;
3. Integrate macroeconomic planning: Coordinate debt issuance strategies with GDP growth, inflation trends, and foreign exchange forecasts to maintain sustainable debt levels;
4. Promote institutional reforms: Strengthen coordination among the Ministry of Finance, Central Bank, and parliamentary oversight bodies to improve policy implementation and governance quality;
5. Develop contingency plans: Formulate scenario-based debt management strategies to reduce the impact of adverse events, including global financial shocks or geopolitical tensions.

Implementing these measures would enable Armenia to sustain public debt at manageable levels, enhance fiscal resilience, and bolster overall economic security.

**References:**

Afanasyev, A. A., Borovskaya, M. A., Kolesnikov, Yu. A., & Fedosova, T. V. (Eds.). (2023). *Intellectual property management in the knowledge economy: Legal regulation and commercialization.* Rostov-on-Don, Taganrog, Russia: Southern Federal University Press. DOI: 10.18522/801300100

Asian Development Bank (ADB). (2024). *Armenia 2024: Asian Development Outlook.* Retrieved October 14, 2025, from https://www.adb.org/sites/default/files/publication/27749/arm-2024.pdf.

Gevorkyan, A. V. (2017). The foreign exchange regime in a small open economy: Armenia and beyond. *Journal of Economic Studies*, *44*(5), 781-800.

Gevorkyan, A. V. (2023). Foreign exchange constraint and select developing economies: insights from the Caucasus and Central Asia. In *Foreign Exchange Constraint and Developing Economies* (pp. 2-27). Edward Elgar Publishing.

Grigoryan, A. Z. (2021). Economic debt security problems of the Republic of Armenia in the context of the Artsakh war. *Scientific Artsakh*, *1*(8), 181-188. Retrieved October 14, 2025, from https://cyberleninka.ru/article/n/economic-debt-security-problems-of-the-republic-of-armenia-in-the-context-of-the-artsakh-war.

Grigoryan, A. Z. (2025). *The philosophy of external public debt management.* Generis Publishing.

Harutyunyan, L. (2016). *The economic development and the budgetary situation in Armenia in post-independence period: an economic dilemma* (Doctoral dissertation).

International Monetary Fund (IMF). (2021). Republic of Armenia: 2021 Article IV Consultation. Retrieved October 14, 2025, from https://www.elibrary.imf.org/downloadpdf/view/journals/002/2021/273/article-A001-en.pdf.

International Monetary Fund (IMF). (2023). Republic of Armenia: 2023 Article IV Consultation and Second Review Under the Extended Fund Facility Arrangement. Retrieved October 14, 2025, from https://www.elibrary.imf.org/downloadpdf/view/journals/002/2023/416/002.2023.issue-416-en.pdf.

Matevosyan, A., & Grigoryan, A. (2021). Assessment of the analysis of the sustainability of the RA public debt according to the MAC DSA methodology of the International Monetary Fund. *Advance Research Journal of Multidisciplinary Discoveries*, *68*(1), 1. DOI: 10.5281/zenodo.6237359

Matevosyan, A., & Grigoryan, A. (2022). The philosophy of external public debt management. *Wisdom*, *24*(4), 91-101. DOI: 10.24234/wisdom.v24i4.945

Matevosyan, A., & Grigoryan, A. (2023a). Approaches to assessing the impact of economic activity growth and currency fluctuations on the external debt of the Republic of Armenia. In *Problems of competitive education and science in a changing world: International conference collection of scientific articles* (pp. 327-347). Yerevan, Armenia: International Scientific-Educational Center. Retrieved October 14, 2025, from https://www.isec.am/images/gitakan_hraparakumner/Gitajoxov_2023.pdf.

Matevosyan, A., & Grigoryan, A. (2023b). Approaches to assessment of RA foreign state debt. *European University*, *14*(01), 11–26. DOI: 10.59982/18294359-23.14-ha-02

Matevosyan, A., & Grigoryan, A. (2023c). Proposed board of public debt burden assessment. *Alternative Scientific Journal*, *1*. DOI: 10.55528/18292828-2023.1-95

Matevosyan, A., & Grigoryan, A. (2023d). RA state debt servicing capacity in collapse situations. *Katchar Scientific Periodical*, *1*, 50-62. DOI: 10.54503/2579-2903-2023.1-50

Matevosyan, A., & Grigoryan, A. (2024a). Features of location of State Debt Management Agency Institute in RA. *Region and the World*, *6*, 128-131. DOI: 10.58587/18292437-2023.6-128

Matevosyan, A., & Grigoryan, A. (2024b). The approach to the improvement of Ra external state debt management according to the Shapiro-Wilk Test. Results of Spearman's rank correlation assessment. In *Seventeenth Annual Scientific Conference of Armenian-Russian (Slavonian) University: Collection of scientific articles* (pp. 232-250). Yerevan, Armenia: Russian-Armenian University. Retrieved October 14, 2025, from https://science.rau.am/uploads/documents/1730100109.pdf.

Matevosyan, A., Matevosyan, M., & Grigoryan, A. (2024c, May 31). Public debt as an indicator of economic security. In *Current challenges and prospects for development of research education: International conference collection of scientific articles* (pp. 568-578). Yerevan, Armenia: International Scientific-Educational Center. Retrieved October 14, 2025, from https://www.isec.am/images/gitakan_hraparakumner/Gitajoghov_2024.pdf.

Matevosyan, A., Mnatsakanyan, H., Grigoryan, L., Grigoryan, A., Kirakosyan, G., & Siroyan, G. (2025). Economics institutional framework and proposed solutions regarding debt policy: Evidence from Armenia and Georgia. *Bulletin of the Georgian National Academy of Sciences*, *19*(193), 176-183. Retrieved October 14, 2025, from http://science.org.ge/bnas/vol-19-1.html

Ministry of Finance of the Republic of Armenia. (2023). *Annual report on the public debt of the Republic of Armenia (2023 Annual).* Retrieved October 14, 2025, from https://www.minfin.am/en/page/annual_reports/.

Wheeler, G. (2004). *Sound practice in government debt management*. World Bank Publications.

World Bank. (2022). *Debt Report 2022 Edition I.* Retrieved October 14, 2025, from https://openknowledge.worldbank.org/entities/publication/dabaf0d9-37b4-5f6f-89fa-289221b96844.

World Bank. (2024). *Armenia overview: Development news, research, data*. Retrieved October 14, 2025, from https://www.worldbank.org/en/country/armenia/overview.

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