

## PROPOSED BOARD OF PUBLIC DEBT BURDEN ASSESSMENT

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Key words: debt, effective debt management, economic growth, export, RA debt ratio

**Introduction.** Debt problems always have been at the core of interests and analysis of representatives of the academic world of different periods. No economy is free from the risk of progression of debt obligations. From the beginning, the concept of debt itself caused negative perceptions, but the existence of debt was not always manifested as a negative phenomenon. The global recession and the European sovereign debt crisis have stimulated an intense debate about the effectiveness of fiscal policy and the consequences of rising government debt. Some economists and commentators suggest that this is the right time to apply the lessons learned during the great depression and that countries should not shy away from expansionary fiscal policy [Krugman, 2011, DeLong and Summers, 2012]. Other economists argue that high levels of public debt hurt economic growth and that fiscal consolidation (Cochrane, 2011b) is necessary to anchor expectations and restore confidence (Panizza and Presbitero 2013). Effective debt management should include a nation's borrowing strategy, estimation and determining the official levels of borrowing, forming an appropriate structure, and purpose-oriented use of borrowed resources and control of the effectiveness of their usage [Slav'yuk and Slaviuk, 2018]. In the study, the research goal of the authors was the assessment of the dynamic approaches of the ratio of the RA's external public debt and export indicators in the context of the improvement of the RA public debt management, based on the acceptable external public debt/export volume ratio for the World Bank debt assessment, with the relevant chronological databases.

**Methodology.** The research dedicated to the assessment of the state debt burden was carried out in the Department of Finance of the State University of Economics of Armenia. In the course of the research, indicators of the state debt burden used by the World Bank were considered, the most appropriate of which was localized for the Republic of Armenia. Debt sustainability is assessed based on indicators of the debt stock or debt service relative to various measures of repayment capacity (typically GDP, exports, or government revenues) [IMF 2008]. We can use different data sets to estimate the public debt burden, each of which reflects different perspectives on the debt burden and public debt sustainability.

**Literature Review.** While earlier literature had a benign view of debt, seen to be contributing positively to growth [Modigliani, 1961; Solberg 1988], later research raised

concerns about debt overhangs. These were heightened by the debt crises of developing countries in the 1980s-90s [Moreno-Badia et al. 2020]. The literature on debt overhang has received a renewed impulse after the global financial crisis. For example, Reinhart and Rogoff (2010) and Baum, Checherita-Westphal, and Rother (2012) presented evidence that debt is associated with lower economic growth above some levels. Kumar and Woo (2010) find an inverse relationship between initial debt and subsequent growth. At the same time, while the evidence for a negative correlation between public debt and economic growth appears to be robust, the literature is still debating on whether high debt causes low economic growth [Panizza and Presbitero; 2013] and channels [Jalles and Medas; 2022]. The external debt was an important stimulator of economic growth and a way to balance the budget [Zouhaier and Fatma; 2014]. The negative effect of external debt is stronger on economic growth in comparison to domestic debt [Wani et al.; 2016]. Due to the current geopolitical challenges, the questions related to the approaches to the evaluation of public debt have become more relevant in the research and discussions of both foreign authors and international authoritative organizations, which is why the relevance of the research is determined.

**Scientific novelty.** The methodological basis for the article was the index of the ratio of the coefficients of the external debt and the annual volume of exports used by the World Bank for the classification of debtor countries [World Bank; 2002]. The mentioned coefficient allows getting an idea about the possibility of timely and full fulfillment of the obligations assumed by the debtor country. Naturally, the more developed the debtor country is, the smaller the coefficient calculated based on the mentioned indicators will be, and vice versa.

$$\text{Debt ratio} = \frac{\text{External state debt}}{\text{Annual export volume}} \times 100\%$$

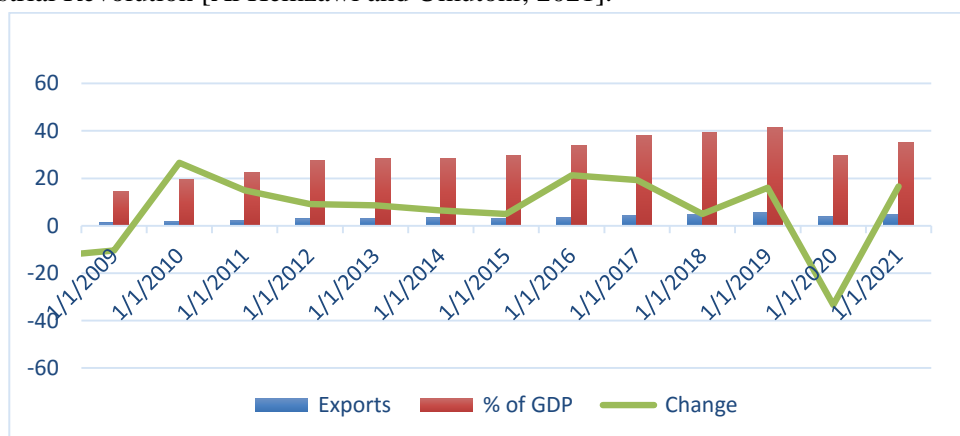
Regarding the index, the following criteria are applied to the World Bank:

- ≥ 200 – horrific
- 132-220 – acceptable
- ≤ 220 – low
- ≥ 200 – horrific
- 132-220 – acceptable
- ≤ 132 – low

The research was based on the works of various foreign authors dedicated to the assessment thresholds of the state debt, external state debt, the online data sets of the indicators of the export of goods of the RA Ministry of Finance, and the RA Statistical Committee in the considered periods.

**Analysis.** Disordered debt policy at the macro level leads to a low credit rating of the country, against which the ratings of individual economic entities are indistinguishable, which hinders their promotion in international markets [Silaeva, et al.; 2020]. Debt in foreign currency also has its risks and can lead to pressure on the exchange rate or monetary policy. Reducing the risk in which government debt portfolio will become a source of instability, and prudent management of government debt can make economies less exposed to damage and financial risk [Gaber et al., 2013]. While fiscal policy directly impacts public debt management, monetary policy can play an important supporting role [Moore & Skeete, 2010]. However, public debt management is important because its size and maturity affect future fiscal and monetary policy decisions therefore the coordination between fiscal and monetary policies becomes inevitable [Alzyadat, 2021].

During the implementation of export-oriented policies, different developing countries had varying results in GDP growth (Rodrik & Rodriguez, 2000). Each country has its present economic growth, although its growth rate has shifted from slow and irregular to a more dynamic, rapid, and continued rate, [Antunes, 2012], especially after the Industrial Revolution [Al Hemzawi and Umutoni; 2021].



**Figure 1.** RA external state debt / Exports

In general, the ratio of public debt/export volumes reflects the ratio of outstanding debt at the end of the year to the indicators of exports of goods and services. The obtained coefficient can be one of the criteria characterizing debt sustainability, allowing policymakers to initiate the necessary interventions aimed at solving problems related to the fulfillment of debt obligations. Involved external borrowing funds, which form debt reserves, will not be an additional burden for the state if they are generated in the direction of effective investments, because real investments in the economy contribute to the increase in the volume of goods and services. More generally, this also highlights the

need to monitor debt indicators in medium-term scenarios to overcome the limitations of a “snapshot” (IMF 2003). In the studied period, the online data of the Statistical Committee of the Republic of Armenia on the indicators of the volume of exports of goods and services and the size of the foreign debt were used to make estimates on the stability of the debt of the Republic of Armenia, applying the coefficient characterizing the stability of the debt of the World Bank, which is the research basis. Data are presented in US dollars. The sharp decline recorded since 2009 was due to the negative consequences of the global financial crisis, which the Armenian economy, which has not yet overcome, faced the humanitarian, severe socio-economic problems caused by the 2nd Artsakh conflict of 2020, as well as the negative challenges of the coronavirus pandemic.

Based on the WB criteria: ( $\geq 200$  – horrific;  $-132-220$  – acceptable;  $\leq 220$  – low) the results of the analysis give grounds for concluding that:

- In general, the debt ratio was in "acceptable" range in the considered periods
- In 2010, 2016, and 2021, the debt ratio was in the "horrific" range due to the already-mentioned challenges facing RA.

➤ Taking into account the fact that the official data for 2022 regarding the indicated indicators are not yet summarized and public, we consider it appropriate to add that in the first quarter of 2022, the increase in the export volume compared to the previous period was 26.9%, which we can consider as a promising indicator. We consider it necessary to emphasize. The increase in this indicator was mainly ensured due to the conflict between Russia and Ukraine and the negative effects of the sanctions applied to Russia (Figure 2).

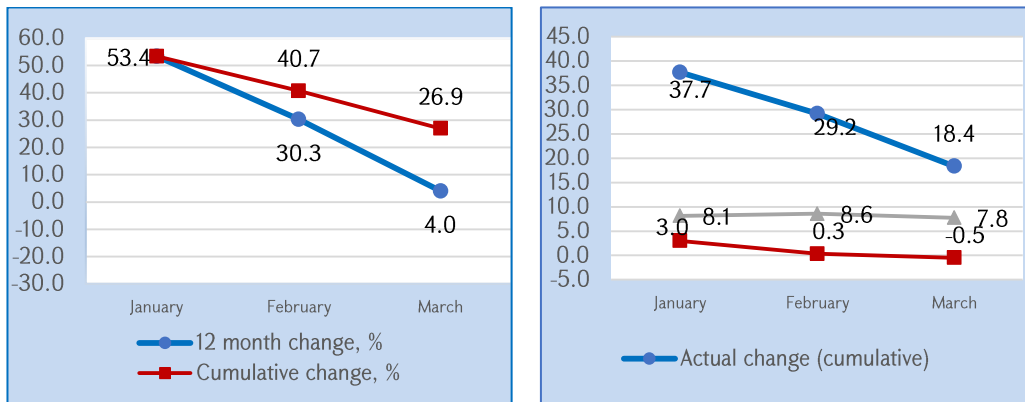


Figure 2. Export trends of goods in January-March<sup>1</sup>

**Conclusions.** The most important factor in ensuring the effectiveness of public debt management is the use of the latter in strictly capital-creating directions, which will

<sup>1</sup> Source: RA Statistical Committee, "Socio-Economic State of the Republic of Armenia" monthly reports and calculations of the Ministry of Finance of the Republic of Armenia. [www.armstat.am](http://www.armstat.am)

contribute to ensuring real economic growth, thanks to which the state will be able not only to repay the borrowed funds on time but also to successfully service them. As a result of the research, it became clear that in 2009, the RA debt ratio was in the range of "critical" measurements specified by the World Bank, which was the result of the negative effects of the global financial and economic crisis, when the RA government had to conduct an anti-cyclical fiscal policy, that is, at the expense of to generate additional funds for increasing the deficit in the real sector to counteract the negative macroeconomic effects. In 2021, the RA state debt amounted to 9 billion 226 million US dollars, compared to the previous year, the increase was 15.8%, the majority of which, 6 billion 643 million dollars, was the foreign state debt. The main emphases of the RA Government's policy aimed at reducing the state debt are about the provision of double-digit economic growth and the export-oriented policy. The rate of economic recovery growth initiated in 2021 was continuous in the first quarter of the next year. Nevertheless, as a result of the Russian-Ukrainian conflict that started at the beginning of 2022, the economic growth rate of RA has slowed down a little, because various sanctions were applied against Russia, which is the main trade partner of RA, however, at the end of the year, RA economic growth was 5.8%. The results of the research methodology used in the article allow us to record that, in general, the RA debt ratio was in the "acceptable" range, which the authors assessed as a positive trend, taking into account the economic uncertainties caused by the new geopolitical realities. In this context, the implementation of large state investments in capital-creating infrastructures aimed at ensuring economic growth by the RA Government and the implementation of stimulating measures aimed at increasing exports is important.

**References:**

1. KRUGMAN, P. (1988): "Financing vs. forgiving a debt overhang," *Journal of Development Economics*, 29(3), 253–268. (2011): "Self-defeating Austerity," *New York Times*, July 7
2. DELONG, B. J., AND L. H. SUMMERS (2012): "Fiscal Policy in a Depressed Economy," *Brookings Papers on Economic Activity*, Spring
3. COCHRANE, J. H. (2011a): "Inflation and Debt," *National Affairs*, (9), 56–78. (2011b): "Understanding policy in the great recession: Some unpleasant fiscal arithmetic," *EER*, 55(1), 2–30.
4. Panizza U., Presbitero A. F., (2013)-Public debt and economic growth in advanced economies: A survey. Working paper 78, Univ. Politecnica Marche - Dept. Economic and Social Sciences, p.17, <https://econpapers.repec.org/paper/ancwmofir/78.htm>
5. Slav'yuk, R., Slaviuk, N. (2018). Government debt management: challenges and perspectives. *Investment Management and Financial Innovations*, 15, 143-156.
6. Modigliani, F. (1961). Long-Run Implications of Alternative Fiscal Policies and the Burden of the National Debt. *The Economic Journal*, 71, 730-755.
7. Solberg, R.L. (1988). *Sovereign Rescheduling: Risk and Portfolio Management*. Routledge.

8. Moreno-Badia, Marialuz, Paulo Medas, Pranav Gupta, and Yuan Xiang. 2020. "Debt is Not Free," IMF Working Paper 20/1 (Washington: International Monetary Fund).
9. Reinhart C., Rogoff K. (2010) Growth in a time of debt. AER, pp.573–578 [www.aeaweb.org](http://www.aeaweb.org)
10. Baum, A.; Checherita-Westphal, C.; and Rother P. (2013) "Debt and Growth: New Evidence for the Euro Area." *Journal of International Money and Finance* 32: 809–21.
11. Kumar, M., & Woo, J. (2010). Public Debt and Growth. Washington DC: IMF, WP/10/174.
12. CHECHERITA-WESTPHAL C., ROTHER, P.(2012), The Impact of High Government Debt on Economic Growth and Its Channels: An Empirical Investigation for the Euro Area. EER, 56.
13. João Tovar Jalles, Medas P.(2022) Economic Growth After Debt Surges: IMF WP/22/159
14. Hadhek Zouhaier, Mrad Fatma (2014): Debt and Economic Growth International Journal of Economics and Financial Issues Vol. 4, No. 2, pp.440-448.
15. Wani, Nassir Ul Haq, and Kabir, Habib (2016) An evaluation of relationship between public debt and economic growth: A study of Afghanistan <https://mpr.ub.uni-muenchen.de/75538/1>
16. IMF 2008. External Debt Statistics, <http://tffs.org/pdf/edsg/edsgcha14.pdf> pg. 2
17. World Bank, (2002); Debt Burden Indicators and Country Classifications. Global Development Finance: Financing the Poorest Countries. Washington DC, p. 119.
18. Silaeva, A., Doronkina, I., Boboshko, (2020) - Macroeconomic Policy as A Condition for The Formation of Corporate Financial Policy N. / Vol. 9 Núm. 25: 182 -189.
19. Gaber, S., Gruevski, I., Gaber, V. (2013) Public debt management. Perspectives of Innovations, Economics & Business, (13) (2). P19 – 31 <http://dx.doi.org/10.15208/pieb.2013.07>
20. Moore, W., & Skeete, K. (2010). The implications of monetary policy shocks for government debt management in Barbados. CBB Working Paper 2010.
21. Alzyadat, J. (2021). Public Debt Management and Macroeconomics Policies Coordination: Evidence from Jordan. *Amazonia Investiga*, 9(36), 59-72. pp. 2-3.
22. Rodrik, D., Rodriguez, F. (2000). Trade Policy and Economic Growth: A Skeptic's Guide.
23. Antunes, A. J. (2012). The effects of international trade on economic growth: An empirical comparison of Portugal and the Netherlands (Doct. dissertation). [Lisbon University Institute].
24. Bashir Al Hemzawi & Natacha Umtoni (2021), Impact of exports and imports on the economic growth: A case study of Rwanda from 2006 to 2020, p.89.
25. IMF (2003) External Debt Statistics: Guide for Compilers and Users, -- Part III: Use of External Debt Statistics - Debt Sustainability: Medium-Term Scenarios and Debt Ratios, pp. 4.

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**Proposed board of public debt burden assessment**

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The financial situation of any country is highlighted by the level of its deficit. It is difficult to imagine a state that is not involved in the problem of having a deficit budget. There are various sources of financing the deficit of the state budget, but the most applicable is the involvement of foreign loans, which ultimately increases the burden of the state debt. Effective management of public debt is important in the context of financial management. In the article, the authors used the external debt/export ratio tool to evaluate the RA state debt, one of the debt evaluation coefficients used by the World Bank for the classification of borrower countries. The results of the reanalysis based on the mentioned methodology allows us to note that, in general, the debt ratio of RA was in the "acceptable" range specified by the World Bank in the considered periods, except for the "horrorific" range recorded in 2009, 2016 and 2021, the causal interpretation of which was presented in the article.