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UNDER THE LOAN: AN ANALYSIS OF ARMENIAN BANKING SECTOR AND CREDIT TRENDS

Aghasi Tavadyan

Armenian State University of Economics,
Ph.D. in Economics, Associate professor
a.tavadyan@gmail.com

Abstract: This study examines recent trends in Armenia's banking sector and export patterns, revealing underlying economic vulnerabilities despite apparent growth. Using data from the Central Bank of Armenia and official trade statistics, this paper analyzes shifts in lending patterns across various economic sectors and changes in export composition. Our findings indicate a concerning decline in industrial sector lending, coupled with a significant increase in mortgage and consumer loans. Additionally, we observe a heavy reliance on precious metal re-exports for economic growth, raising questions about the sustainability of Armenia's current economic trajectory. This research contributes to the understanding of potential risks in Armenia's financial system and highlights the need for diversification in its export base.

Keywords: banking sector, export composition, economic vulnerabilities, mortgage lending, industrial financing, Armenian economy

JEL codes: E51, F14, G21, O16

Research aims: To assess Armenia's economic vulnerabilities by analyzing banking sector trends and export patterns.

Research novelty: Integrating lending and export analysis to provide a new perspective on Armenia's economic growth sustainability.

Introduction

The Armenian economy has demonstrated remarkable growth in recent years, with official statistics indicating significant increases in GDP and export volumes. However, a closer examination of underlying economic indicators suggests that this growth may be built on unstable foundations. This study aims to investigate the apparent discrepancy between headline economic figures and the health of key sectors of the Armenian economy, with a particular focus on banking sector trends and export composition.

Armenia, a small landlocked country in the South Caucasus, has faced numerous economic challenges since gaining independence in 1991. These have included the transition from a Soviet-style planned economy to a market-based system, regional conflicts, and trade blockades (Dabrowski, 2001). Despite these obstacles, Armenia has pursued economic reforms and integration into the global economy, achieving notable success in areas such as information technology and services exports.

However, recent trends in banking sector activity and export patterns raise questions about the sustainability of Armenia's economic growth model. This study is motivated by several concerning developments:

1. A decline in foreign currency loans to the industrial sector, potentially indicating a contraction in real industry.

2. A rapid increase in mortgage and consumer lending, with mortgage loans surpassing 10% of GDP by April 2024, up from 2.5% in 2018.

3. A shift in the composition of exports, with a growing reliance on the re-export of precious metals, particularly gold (Tavadyan, 2024a).

These trends suggest that Armenia's economy may be increasingly vulnerable to external shocks and financial sector risks. The purpose of this study is to analyze these developments in detail, assess their implications for Armenia's economic stability, and propose potential policy responses.

Our research contributes to the existing literature on economic development in transition economies and small open economies. By focusing on the interplay between banking sector dynamics and export patterns, we offer insights into the challenges of achieving sustainable economic growth in a country with Armenia's unique geopolitical and economic circumstances.

The remainder of this paper is structured as follows: Section 2 reviews relevant literature on banking sector development and export-led growth in transition economies. Section 3 describes our data sources and methodology. Section 4 presents our analysis of trends in sectoral lending, mortgage and consumer loan growth, and export composition. Section 5 discusses the

implications of our findings for economic stability and offers policy recommendations. Finally, Section 6 concludes with a summary of key findings and suggestions for future research.

Literature Review

The relationship between financial sector development, export patterns, and economic growth has been extensively studied in the economic literature, particularly in the context of transition and developing economies.

Banking sector development and economic growth

The role of the banking sector in promoting economic growth has been a subject of considerable research. Bonin and Wachtel (2003) examine the evolution of banking systems in Central and Eastern Europe, emphasizing the challenges of establishing market-oriented banking practices in transition economies. In the context of Armenia, Dabla-Norris and Floerkemeier (2007) analyze the determinants of bank efficiency and market structure, highlighting the factors that influence banking spreads in the country.

Tavadyan (2022) emphasizes the importance of maintaining an optimal difference between the bank rate and inflation for economic development. He argues that a 2% real bank rate is a benchmark for effective monetary policy coordination, particularly beneficial for GDP growth, export growth, and currency stability.

Export composition and economic vulnerability

The composition of a country's exports can significantly impact its economic stability and growth prospects. Hausmann et al. (2007) introduce the concept of export sophistication and its

relationship to economic growth, arguing that countries that export more sophisticated products tend to grow faster.

Lederman and Maloney (2012) examine the "resource curse" hypothesis, challenging the notion that natural resource abundance is inherently detrimental to economic development. Their work is pertinent to Armenia's case, given the country's mining sector and its role in exports.

Mortgage markets and financial stability

The rapid growth of mortgage lending in Armenia raises questions about financial stability. Cerutti et al. (2017) provide a cross-country analysis of the relationship between housing finance and macroeconomic stability, highlighting the potential risks of rapid credit growth in the housing sector.

In the context of transition economies, Stephens (2005) examines the development of mortgage markets in Armenia, discussing the challenges and opportunities presented by the expansion of housing finance in a 'super' home-ownership state.

Economic vulnerabilities in small open economies Armenia's small, open economy is particularly susceptible to external shocks. Briguglio et al. (2009) develop a framework for assessing economic vulnerability and resilience in small states, which could be applied to understanding Armenia's economic challenges.

Feldkircher (2015) analyzes the impact of global financial shocks on emerging European economies, including Armenia, highlighting the importance of domestic financial sector development in mitigating external vulnerabilities.

Recent studies by Tavadyan (2024b, 2024c, 2024d) have highlighted several concerning trends in Armenia's economy, including capital outflow, a decline in electricity production and

exports, and a downturn in tourism and IT services. These findings underscore the need for a comprehensive analysis of Armenia's economic vulnerabilities.

This literature provides a foundation for understanding the complex interplay between banking sector developments, export patterns, and economic vulnerabilities in Armenia. Our study aims to contribute to this body of knowledge by offering a detailed analysis of recent trends and their implications for Armenia's economic stability and growth prospects.

Data and Methodology

This study employs a mixed-methods approach, combining quantitative analysis of financial and economic data with qualitative assessment of policy implications. Our primary data sources are as follows:

Data Sources

1. Central Bank of Armenia (CBA): We utilize monthly data on sectoral lending, including industrial, trade, agricultural, and construction loans, as well as mortgage and consumer loans. The data spans from January 2011 to May 2024.

2. National Statistical Committee of the Republic of Armenia (Armstat): We use quarterly GDP data and annual data on export composition from 2015 to 2024.

3. Ministry of Finance of Armenia: We source data on government debt and fiscal indicators for the period 2015-2024.

4. International Monetary Fund (IMF): We use their World Economic Outlook database for comparative macroeconomic indicators.

Methodology

Our analysis follows several steps:

1. **Trend Analysis:** We examine the trends in sectoral lending, focusing on year-over-year changes and the share of each sector in total lending. We pay particular attention to the growth of mortgage and consumer loans relative to GDP.

2. **Export Composition Analysis:** We analyze the changing composition of Armenia's exports, with a focus on the share of precious metal re-exports and their contribution to overall export growth.

3. **Correlation Analysis:** We investigate the relationships between lending patterns, export composition, and key macroeconomic indicators such as GDP growth and inflation.

4. **Comparative Analysis:** We benchmark Armenia's indicators against those of other transition economies in the region to provide context for our findings.

5. **Vulnerability Assessment:** Drawing on the framework developed by Briguglio et al. (2009), we assess Armenia's economic vulnerability based on our findings.

6. **Policy Implications:** We use the insights from our quantitative analysis to discuss potential policy responses, drawing on the literature and best practices in comparable economies.

To address potential data limitations and uncertainties, we employ the interval method proposed by Tavadyan and Tavadyan (2023) where appropriate, particularly in our analysis of export dynamics.

This methodology allows us to provide a comprehensive picture of Armenia's economic vulnerabilities, focusing on the

interplay between the banking sector and export patterns, while also considering the broader macroeconomic context.

Results and Analysis

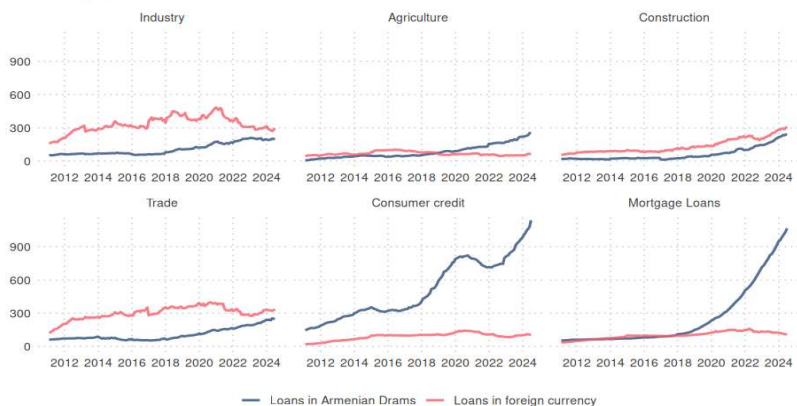
The continuous inflated growth of GDP and export indicators against the backdrop of a decline in the real economy is a cause for significant concern. Under *ceteris paribus* conditions, Armenia's exports in 2024 are expected to be around \$16-18 billion (Tavadyan, 2024a), of which re-exports, according to our methodology (Tavadyan, 2024b), will account for about 85% (net exports will be about \$2.8 billion). This is in stark contrast to 2021, when exports were \$3 billion, with re-exports estimated at only 6% using our methodology.

Exports experienced rapid growth in 2023. That year, \$5.4 billion worth of goods were exported, of which we estimate re-exports accounted for 26%. By the end of 2023, exports had reached \$8.4 billion, with estimated re-exports at 49%, nearly doubling. As mentioned, in 2024, exports are expected to reach \$16-18 billion, with re-exports accounting for about 85%. In fact, at this point, economic growth is determined solely by external stimuli from Russia, and if the re-export of gold from Russia is disrupted or there is a sharp change in the international situation, it will be difficult to ensure the growth of Armenia's overall economic indicators.

In this analysis, we will examine some indicators of monetary policy that also highlight the problems in the economy. The first figure shows loans provided by commercial banks by sector. As can be seen, foreign currency loans to the industrial sector have been declining since 2021.

Loans provided by RA commercial banks to residents by sectors

Does not include financial and insurance activities
billion AMD



Author: Aghasi Tavadyan | tvyal.com | tavadyan.com | Data Source: cba.am

Figure 1. Loans Provided by Commercial Banks by Sector

In December 2020, the industrial sector received foreign currency loans equivalent to 484 billion drams, while in April 2023, it was already 255 billion drams. The decline during this period was 47%. Loans provided to this sector in Armenian drams also show a downward trend, which began at the start of 2023. This circumstance indicates that real industry is currently declining. What's alarming is that the main growth in GDP and economic activity in recent times has been provided by the industry, most of which is officially due to gold production, which is the result of significant re-exports of precious and semi-precious stones and metals in recent months.

Foreign currency loans to the trade sector also show a downward trend, but this is compensated by loans provided in drams, which is positive. Agricultural lending, like the trade sector, also shows some positive trend; here, foreign currency

loans have decreased, while lending in Armenian drams has shown significant growth. Loans provided to the agricultural sector in drams have almost doubled since 2022. Construction lending is growing both in drams and foreign currency, which also shows a certain positive trend. Since 2020, loans provided to this sector in drams have increased more than 3 times, and in foreign currency by 1.5 times.

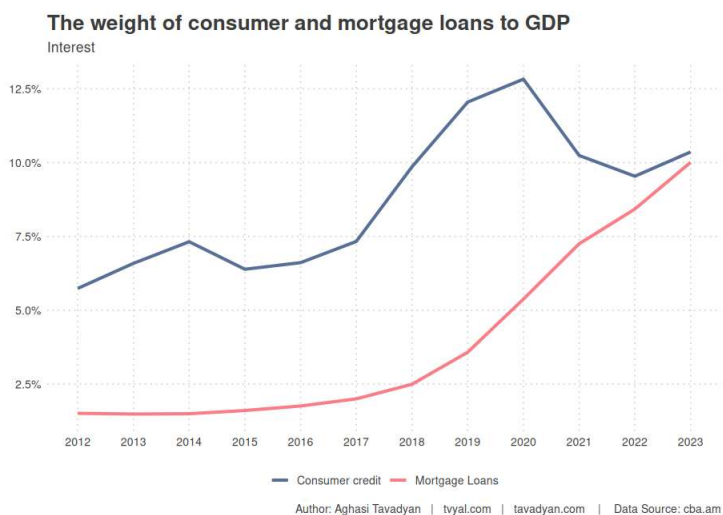


Figure 2. Mortgage and Consumer Loans to GDP Ratio

The sharp increase in mortgage and consumer loans recorded recently is causing some concern. Mortgage loans provided in Armenian drams exceeded 1 trillion drams as of April 2024. At the end of 2023, this figure was 951 million drams, while GDP was 9,505 million drams, so the mortgage loans to GDP ratio already stands at 10% and has a clear growth trend, compared to 2018 when the mortgage loans to GDP ratio was 2.5%. As shown in the figure 3, the consumer loans to GDP ratio also has a growth trend.

The next chart shows the share of bank loans by sector. In 2018, 20.3% of total loans were given to industry, 17.1% to trade. In 2023, the share of these indicators decreased to 11.8% and 13.3% respectively. Instead, the share of consumer and mortgage loans has increased. In 2018, mortgage loans accounted for 10% of total loans, while in 2023 they already accounted for 25%. These two types of loans together accounted for 37.5% of total loans in 2018, and by 2023 they had reached 50.3%.

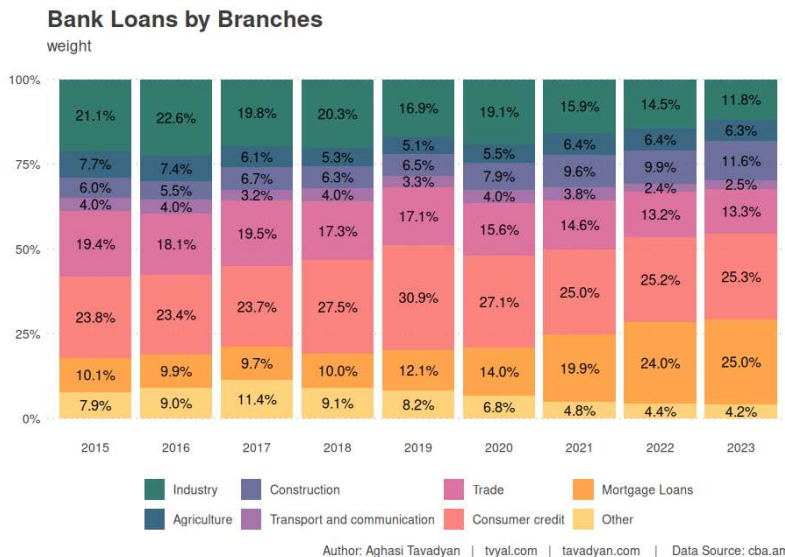


Figure 3. Share of Bank Loans by Sector

It is also interesting to examine bank lending according to GDP production, based on the Classification of Types of Economic Activity (NACE Rev. 2) (European Commission, 2008). As can be seen, at the end of 2023, total loans provided to the economy across various sectors amounted to 2.7 trillion drams, which is 11.8% more than the 2.3 trillion drams in 2022. However, as

shown in the figure 4, there is already a downward trend in lending. The last time such a downward trend was observed was from the beginning of 2021, when total loans decreased by 9.2%, which was mainly a consequence of the -7.2% economic decline in 2020. The same trend is observed from the beginning of 2024, which also indicates key problems in the economy.

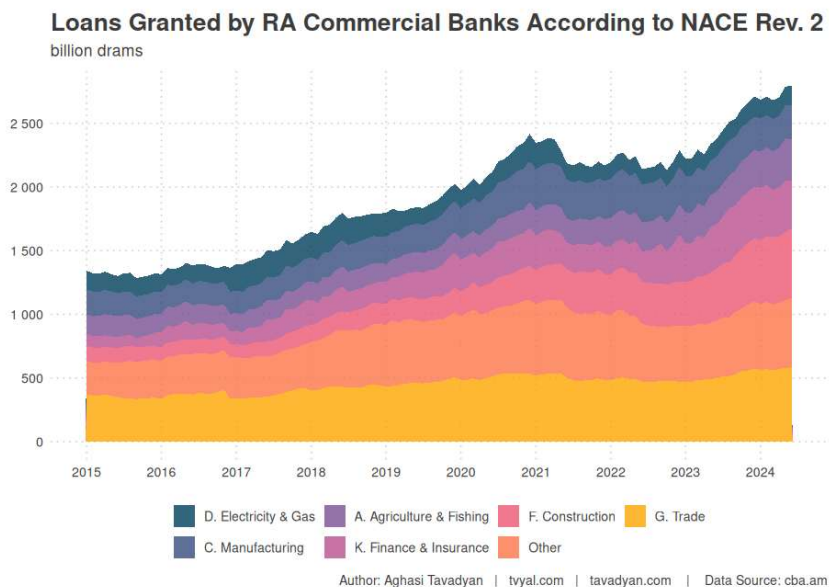


Figure 4. Total Lending by Economic Sector

The downward trend in overall lending is worrying and indicates that there is a decrease in lending in the economy, as well as trends of economic contraction. As we have shown in our previous studies, at this point, export growth is mainly driven by the re-export of gold and diamonds from Russia to the UAE and Hong Kong (almost 9-fold growth in one year), as well as to some

extent by the export of textiles and ore. In all other sectors, as well as in traditional sectors, there is a decline in exports, as well as in lending. This suggests that the 7% economic growth planned in the 2024 budget, against the backdrop of a general decline in the real economy, can be achieved mainly through the continuation of the trend of re-exporting gold from Russia, which is an external factor.

Discussion

The analysis reveals several concerning trends in Armenia's economy that warrant careful consideration:

1. Shift in lending patterns: The significant decline in industrial sector loans, coupled with the rapid growth of mortgage and consumer loans, suggests a potential misallocation of financial resources. This shift could lead to reduced productive capacity in the long term and increased vulnerability to economic shocks.

2. Over-reliance on re-exports: The dramatic increase in re-exports, particularly of gold and precious stones from Russia, presents a precarious foundation for economic growth. This dependence on external factors makes Armenia's economy highly susceptible to geopolitical shifts and changes in international trade dynamics.

3. Banking sector risks: The surge in mortgage and consumer lending relative to GDP raises concerns about potential asset bubbles and household debt sustainability. This trend could pose risks to financial stability if economic conditions deteriorate.

4. Sectoral imbalances: The decline in lending to traditional sectors like industry and trade, contrasted with the growth in

construction and agriculture lending, points to ongoing structural changes in the Armenian economy. While diversification can be positive, the rapid pace of these changes may create adjustment challenges.

5. **Economic growth sustainability:** The discrepancy between headline GDP growth figures and the observed trends in real economic activity raises questions about the quality and sustainability of Armenia's economic expansion.

Conclusion

Armenia's economy is at a critical juncture, facing both opportunities and significant risks. The analysis reveals a complex picture of an economy increasingly reliant on re-exports and consumer spending, while traditional productive sectors show signs of weakening. This situation presents several key challenges:

1. **Economic vulnerability:** The heavy dependence on re-exports, particularly from Russia, exposes Armenia to external shocks and geopolitical risks. Diversifying the export base and strengthening domestic productive capacities should be a priority.

2. **Financial stability:** The rapid growth in mortgage and consumer lending requires careful monitoring and potentially more stringent regulatory measures to prevent the build-up of systemic risks in the banking sector.

3. **Structural transformation:** While the shift in economic activity from industry to services and construction may reflect natural economic evolution, policymakers need to ensure this transition supports long-term sustainable growth.

4. **Policy coordination:** There is a clear need for coordinated fiscal, monetary, and structural policies to address the identified

vulnerabilities and support a more balanced and resilient economic growth model.

5. Data transparency: The discrepancies between headline economic figures and underlying economic realities highlight the importance of comprehensive and transparent economic data for effective policymaking and analysis.

In conclusion, while Armenia's economy shows impressive growth on paper, the underlying trends suggest significant vulnerabilities. Addressing these challenges will require careful policy calibration, focusing on diversifying the economic base, strengthening domestic industries, and ensuring financial sector stability. Future research should focus on developing more robust methodologies for assessing the true state of Armenia's economy, particularly in light of the significant role of re-exports and the informal sector.

References:

1. **Bonin, J. P., & Wachtel, P.** (2003). Financial sector development in transition economies: Lessons from the first decade. *Financial Markets, Institutions & Instruments*, 12(1), pp. 1-66.
2. **Briguglio, L., Cordina, G., Farrugia, N., & Vella, S.** (2009). Economic vulnerability and resilience: Concepts and measurements. *Oxford Development Studies*, 37(3), pp. 229-247. <https://doi.org/10.1080/13600810903089893>
3. **Cerutti, E., Dagher, J., & Dell'Ariccia, G.** (2017). Housing finance and real-estate booms: A cross-country perspective. *Journal of Housing Economics*, 38, pp. 1-13.
4. **Dabla-Norris, E., & Floerkemeier, H.** (2007). Bank efficiency and market structure: What determines banking spreads in Armenia? IMF Working Paper, WP/07/134.

5. **Dabrowski, M.** (2001). Macroeconomic and Fiscal Challenges during the EU Accession Process: an Overview. Dabrowski, M.-Rostowski, J. (a cura di): The Eastern Enlargement of the EU, Kluwer Academic Publishers, Boston/Dordrecht/London, pp. 1-33.
6. **European Commission.** (2008). NACE Rev. 2 – Statistical classification of economic activities in the European Community. Luxembourg: Office for Official Publications of the European Communities.
<https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF>
7. **Feldkircher, M.** (2015). A global macro model for emerging Europe. Journal of Comparative Economics, 43(3), pp. 706-726.
8. **Hausmann, R., Hwang, J., & Rodrik, D.** (2007). What you export matters. Journal of Economic Growth, 12, pp. 1-25.
9. **Lederman, D., & Maloney, W.** (2012). Does what you export matter? In search of empirical guidance for industrial policies. World Bank Publications.
10. **Stephens, M.** (2005). A critical analysis of housing finance reform in a 'super' home-ownership state: The case of Armenia. Urban Studies, 42(10), pp. 1795-1815.
11. **Tavadyan, A.** (2022). Uncertainty bands: A guide to predicting and regulating economic processes. Anthem Press.
12. **Tavadyan, A.** (2024a). Gold Rush 2: Gold and Diamonds are 75% of Armenia's Exports. Tvyal.com.
https://www.tvyal.com/newsletter/2024/2024_05_11
13. **Tavadyan, A.** (2024b). Capital outflow: Analysis of International Money Transfers. Tvyal.com.
https://www.tvyal.com/newsletter/2024/2024_03_01
14. **Tavadyan, A.** (2024c). Electric Armenia: Reduction in Electricity Production and Exports. Tvyal.com.
https://www.tvyal.com/newsletter/2024/2024_05_17
15. **Tavadyan, A.** (2024d). Armenia's Warm Welcome Runs Cold: Study of Export of Services. Tvyal.com.
https://www.tvyal.com/newsletter/2024/2024_04_26

16. **Tavadyan, A., & Tavadyan, Ag.** (2023). Navigating uncertainty: An interval method to uncover export dynamics – Insights from the Republic of Armenia. *International Journal of Professional Business Review*, 8(10), Article e03777.
<https://doi.org/10.26668/businessreview/2023.v8i10.3777>

ՎԱՐԿԻ ՏԱԿ. ՀԱՅԱՍՏԱՆԻ ԲԱՆԿԱՅԻՆ ՈԼՈՐՏԻ ԵՎ ՎԱՐԿԱՎՈՐՄԱՆ ՄԻՏՈՒՄՆԵՐԻ ՎԵՐԼՈՒԾՈՒԹՅՈՒՆ

Աղասի Թավադյան

Հայաստանի պետական տնտեսագիտական համալսարան,
տ.գ.թ., դոցենտ

Բանալի բառեր - բանկային հատված, արտահանման կառուցվածք, տնտեսական խոցելիություններ, հիփոթեքային վարկավորում, արդյունաբերական ֆինանսավորում, հայկական տնտեսություն

Հոդվածում ներկայացվում է Հայաստանի բանկային հատվածի և արտահանման մոդելների վերջին միտումները՝ բացահայտելով հիմնական տնտեսական խոցելիությունները՝ չնայած ակնհայտ աճին: Օգտագործելով Հայաստանի Կենտրոնական բանկի տվյալները և առևտրի պաշտոնական վիճակագրությունը՝ այս հոդվածը վերլուծում է վարկավորման մոդելների փոփոխությունները տնտեսության տարբեր ոլորտներում և արտահանման կառուցվածքի փոփոխությունները: Մեր բացահայտումները ցույց են տալիս արդյունաբերական ոլորտի վարկավորման մտահոգիչ անկում՝ զուգակցված հիփոթեքային և սպառողական վարկերի զգալի աճով: Բացի այդ, մենք նկատում ենք տնտեսական աճի

համար թանկարժեք մետաղների վերաարտահանման մեծ կախվածություն, ինչը հարցեր է առաջացնում Հայաստանի ներկայիս տնտեսական ուղու կայունության վերաբերյալ: Այս հետազոտությունը նպաստում է Հայաստանի ֆինանսական համակարգում հնարավոր ռիսկերի ըմբռնմանը և ընդգծում է արտահանման բազայի դիվերսիֆիկացման անհրաժեշտությունը:

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