# EVALUATING THE MACROECONOMIC IMPACT OF FISCAL STRUCTURAL REFORMS: THE CASE OF ARMENIA *

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*The problem of evaluating structural reforms and their economic consequences is among the most debated topics in contemporary international academic discussions. The study of structural reforms implemented in Armenia's economy during the post-independence period shows that fiscal structural reforms occupy a central place among them. Therefore, this article aims to assess the macroeconomic role and impact of fiscal structural reforms as one of the key drivers of development in the economy of the Republic of Armenia, a small open transition economy.*

*For the purpose of evaluating the impact of fiscal structural reforms on key macroeconomic indicators, this article treats them as policy shocks, thereby bringing the analysis into the field of quantitative assessment and estimating their effects on the most essential macroeconomic variables. To achieve this, tools of econometric modeling, as well as statistical, analytical, and other methods, have been applied. Specifically, using the Structural Vector Autoregression (SVAR) model, the article evaluates the effects of reform shocks on tax revenues, public investment, public debt, private sector activity, price stability, and economic growth. The estimations are carried out in four directions — through fiscal, real, monetary, and combined macroeconomic models — in order to examine and assess the different transmission channels of reforms.*

*The research results demonstrate that fiscal structural reforms generate rapid and stable positive shifts in fiscal capacity, capital, productivity, and output, while simultaneously contributing to reducing inflation and lowering debt. The findings obtained through multifactor models confirm that fiscal structural reforms have a direct and significant impact on revenue collection and the efficiency of public investments, while at the same time gradually reducing public debt. In the real sector of the economy, reforms stimulate productivity and consumption in the initial stage, though they reduce private investment. Importantly, the results indicate that fiscal structural reforms explain a considerable share of the fluctuations observed in the main macroeconomic indicators, further confirming their central role in shaping key macroeconomic variables.*

*These outcomes emphasize the importance of credibility, consistency, and institutional depth of reforms in ensuring macro-fiscal resilience. This study contributes to the formation and deepening of empirical literature on reform*

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*effectiveness by offering an applied methodology for quantifying reform shocks and their macroeconomic transmission mechanisms in small open economies.*

**Keywords:** *Structural Reforms, Small Open Economy, Fiscal Structural Reforms, Armenia, Macroeconomic Stability, Transition Economies, Public Finance Reform.*

## Introduction

Structural reforms are crucial for strengthening macroeconomic resilience and enhancing the institutional foundations of fiscal policy, particularly in transition and developing economies. Within this domain, *fiscal structural reforms* — encompassing tax policy modernization, expenditure restructuring, and the implementation of fiscal rules — are often regarded as key instruments to improve revenue mobilization, reallocate resources more efficiently, and anchor public debt sustainability. Despite their recognized importance, the dynamic macroeconomic consequences of fiscal structural reforms remain insufficiently quantified, especially in small open economies with institutional volatility and constrained policy space.

Armenia provides a relevant empirical context for examining these effects. As a post-Soviet transition economy, Armenia has undergone significant fiscal adjustments over the past two decades, supported by international institutions and national strategies. However, the aggregate macroeconomic impact of these reforms — particularly in terms of their propagation through key fiscal, real, and monetary indicators—has not been rigorously evaluated in a structural, model-based framework.

This study addresses this gap by employing a quarterly **Fiscal Structural Reform Index (FSRI)** — previously developed in related research — as a policy variable within four sectoral **Structural Vector Autoregression (SVAR)** models: fiscal, real, monetary, and combined macroeconomic systems. By treating the first-differenced FSRI (ΔFSRI) as an exogenous structural shock and identifying it using recursive Cholesky decomposition, we trace the causal effects of reform impulses on macroeconomic dynamics over a 16-quarter horizon. This identification strategy enables a detailed examination of both the direction and magnitude of reform-induced adjustments in tax revenue, public investment, consumption, inflation, productivity, and growth.

The contributions of this article are twofold. First, it provides a rare empirical quantification of the macroeconomic effects of fiscal reform shocks in a post-transition, small open economy. Second, by adopting a sectoral SVAR approach with impulse response and variance decomposition analysis, it reveals differentiated transmission mechanisms across the fiscal, real, and monetary systems. The findings demonstrate that fiscal reforms have a significant influence on key macroeconomic outcomes, including improved fiscal performance, strengthened investment responses, and moderated inflationary pressures.

These results hold substantial implications for reform sequencing, institutional anchoring, and macro-fiscal governance in developing and post-Soviet economies, where structural reforms remain politically complex but economically vital.

## Literature Review

The macroeconomic effects of fiscal structural reforms have long been a subject of empirical and theoretical interest, particularly in the context of emerging and transition economies seeking to enhance institutional quality, fiscal credibility, and long-run economic performance. Fiscal structural reforms, distinct from cyclical fiscal policy adjustments, aim to alter the underlying architecture of public finance through changes in tax design, expenditure allocation, fiscal rule adoption, and institutional modernization. These reforms are not one-off events but sustained efforts that reshape the mechanisms

of fiscal policy implementation, planning, and oversight. As such, they exert influence not only through immediate demand-side channels but, more importantly, through supply-side effects and expectations dynamics (Drazen 2000; Cottarelli 2012).

Early contributions to the literature, such as those by Alesina and Perotti (1996) and Campos and Coricelli (2002), framed structural reforms as mechanisms to reduce budgetary imbalances and crowd in private investment, especially when credibility gains outweigh short-run contractionary effects. Duval and Elmeskov (2006) emphasized the importance of political economy conditions and reform sequencing, showing that reform complementarities enhance their effectiveness. Blanchard and Leigh (2013), using post-crisis European data, found that the macroeconomic impact of fiscal policy hinges not just on size and composition but on institutional credibility, reinforcing the role of structural reforms as credibility-enhancing interventions.

In terms of methodological approaches, much of the earlier empirical literature relied on panel regressions or cross-sectional analyses to assess the long-run relationship between reform intensity and macroeconomic performance. However, these approaches often faced limitations in identifying short-term dynamic effects and causal channels. More recent studies have moved toward using structural vector autoregression (SVAR) models and dynamic panel techniques to address endogeneity and lagged transmission effects. For example, Beetsma et al. (2008) employ a structural identification strategy within a VAR framework to examine how fiscal innovations affect macroeconomic balances in the Eurozone. Bornhorst et al. (2013) show that improvements in public revenue administration in developing countries expand fiscal space and reduce borrowing needs, with dynamic effects on inflation and growth.

Empirical research increasingly underscores the need to disaggregate fiscal structural reforms into their constituent elements: Potrafke and Reischmann (2015) demonstrate how intergovernmental transfers affect fiscal sustainability when separated from own-source revenues, while Crispolti et al. (2022) show that the revenue effects of tax reforms differ systematically across instruments and between base-broadening and rate changes, highlighting the importance of analyzing reform components rather than treating fiscal reforms as monolithic.

Gupta et al. (2007) show that fiscal institutional reforms not only support consolidation but are associated with increased public investment and pro-growth spending.

Despite this progress, significant gaps remain. First, there is limited evidence on the short- and medium-term macroeconomic dynamics of fiscal structural reforms using high-frequency data. Most studies use annual datasets, which mask intra-year effects and delays in transmission. Second, there is a lack of country-specific SVAR-based research focusing on reform shocks rather than policy outcomes. While much work has been done on tax or spending shocks (Blanchard and Perotti 2002; Caldara and Kamps 2008), relatively few studies have identified reforms themselves as exogenous innovations affecting macroeconomic systems.

Armenia, as a post-Soviet small open economy, represents an illustrative case where fiscal structural reforms have been implemented in cooperation with international organizations such as the IMF, World Bank, and GIZ. These reforms include tax code revisions, digitalized tax collection, fiscal rule adoption, medium-term expenditure frameworks, and public investment management systems. While qualitative assessments by the IMF and World Bank acknowledge reform progress, no empirical study has yet systematically modeled their dynamic macroeconomic effects.

This study fills that void by employing a quarterly Fiscal Structural Reform Index (FSRI) as an exogenous shock variable in sectoral SVAR models. This enables the identification of reform-induced innovations and the measurement of their transmission to

key macroeconomic indicators such as tax revenue, public investment, government debt, inflation, productivity, and GDP growth. By distinguishing fiscal reforms from ordinary fiscal fluctuations and integrating them into a structural econometric framework, the article contributes new evidence on the role of fiscal reform in macroeconomic stabilization and growth in post-transition settings.

In doing so, the paper bridges methodological and contextual gaps in the literature. It complements cross-country regression studies with time-series identification strategies and extends the focus of SVAR applications from developed economies to transition economies with evolving institutional architectures. More broadly, it offers a replicable empirical strategy for evaluating reform impacts in other low- and middle-income countries navigating the dual challenges of structural change and fiscal sustainability.

## Methodology

To evaluate the dynamic macroeconomic consequences of fiscal structural reforms in Armenia, this study employs a sectorally disaggregated Structural Vector Autoregression (SVAR) framework. The SVAR model design reflects the economic logic of how fiscal institutional changes — captured through the first-differenced Fiscal Structural Reform Index ($\Delta$FSRI[1]) — propagate across macroeconomic systems. Rather than relying solely on statistical correlations, the model structure is informed by economic theory and policy transmission mechanisms.

The $\Delta$FSRI functions as an exogenous structural shock representing reform impulses. This specification allows the analysis to trace how innovations in reform intensity affect a suite of endogenous macroeconomic variables. The inclusion of $\Delta$FSRI as the first variable in the SVAR ordering reflects its conceptual role as a policy-driven intervention that influences, rather than responds to, macroeconomic conditions.

Separate SVAR models were constructed for the fiscal, real, monetary, and combined macroeconomic sectors. This decomposition permits an exploration of both direct and indirect transmission channels:

- The **fiscal SVAR** captures how reforms affect tax revenue, public investment, current expenditure, and debt-to-GDP dynamics.
- The **real SVAR** evaluates productivity, private investment, and consumption responses to reform shocks, in line with growth theory emphasizing capital efficiency and confidence effects.
- The **monetary SVAR** examines inflation, interest rates, and money supply, where fiscal credibility is hypothesized to reduce inflation expectations and stabilize nominal variables.
- The **combined SVAR** synthesizes sectoral dynamics to assess system-wide macroeconomic consequences.

All models are estimated using quarterly data spanning 2005–2024. Growth rates are used for flow variables, while fiscal burden indicators (e.g., debt/GDP) are maintained in ratio form. Stationarity was assessed using Augmented Dickey-Fuller tests, and lag lengths were selected using AIC and SBIC criteria.

The impulse response functions (IRFs) allow for tracing the temporal effects of a one-standard-deviation reform shock on each macroeconomic variable over a 16-quarter horizon. Meanwhile, forecast error variance decomposition (FEVD) quantifies the

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[1] The Fiscal Structural Reform Index (FSRI) is a composite indicator that captures the scope and intensity of fiscal institutional reforms, specifically in areas such as tax administration, expenditure rule implementation, fiscal transparency, and public investment efficiency. Each annual or quarterly value of the FSRI reflects the cumulative progress in reform implementation up to that point. However, in modeling the macroeconomic impact of reforms, it is not the level of institutional development that constitutes a structural shock, but rather the **change in reform effort over time**.

proportion of variation in each endogenous variable attributable to ΔFSRI shocks. This dual approach enables both qualitative interpretation and quantitative attribution of reform effects.

By combining economic reasoning, time series techniques, and a multidimensional indicator of reform effort, the methodological framework aligns empirical modeling with the core theoretical proposition: that fiscal structural reforms are a causal determinant of macroeconomic outcomes in a transition economy setting.

This empirical strategy is designed not as a purely econometric exercise, but as a way to understand the economic transmission mechanisms through which fiscal reforms — such as improved budget institutions, tax rule changes, and capital expenditure reforms — affect investment, output, inflation, and fiscal sustainability. The SVAR framework thus serves as a tool for identifying and quantifying reform impact within a coherent economic narrative

This empirical strategy offers a robust framework for quantifying the impact of fiscal structural reforms on macroeconomic performance. By combining structural identification with sectoral decomposition, this approach offers a policy-relevant and replicable method for evaluating reform effectiveness in transition economies.

## Empirical Results

This section presents a comprehensive analysis of the empirical findings derived from the four Structural Vector Autoregression (SVAR) models developed to assess the macroeconomic impact of fiscal structural reforms in Armenia. By integrating a first-differenced Fiscal Structural Reform Index (ΔFSRI) as a structural policy shock, the SVAR estimations trace the short- and medium-term transmission of reform impulses across fiscal, real, monetary, and combined macroeconomic dimensions. The results are interpreted through impulse response functions (IRFs) and forecast error variance decompositions (FEVDs), providing both dynamic and quantitative assessments of reform effectiveness.
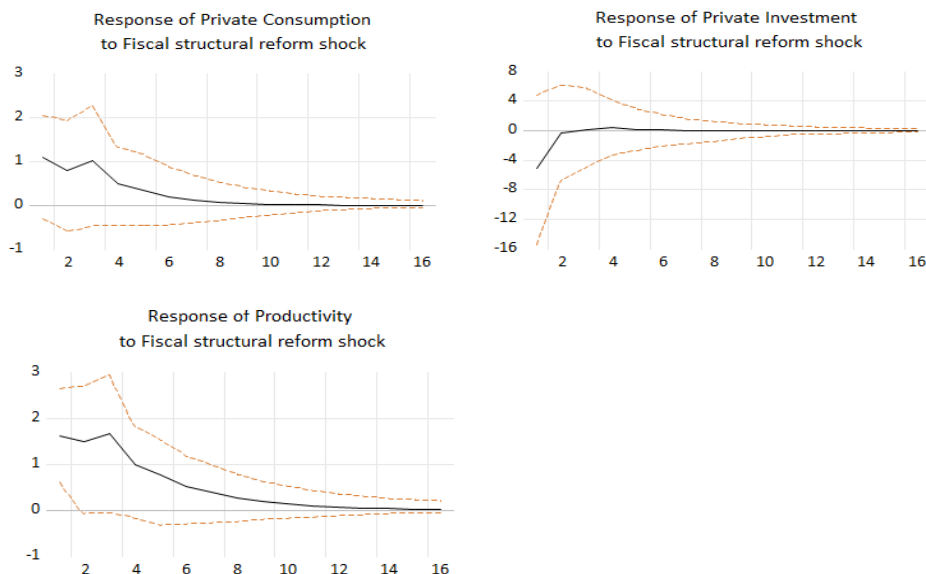


*Figure 1. Response of Real Sector Indicators to Fiscal Structural Reform Shock. Source: The chart was compiled by the authors based on their calculations.*

***In the real sector,*** reforms produce differentiated effects. Productivity increases steadily (+1.60%, Q1), consistent with improved allocative efficiency resulting from institutional strengthening and more targeted fiscal policy. This aligns with endogenous growth theory (Romer, 1990), which posits that institutional quality and investment in public infrastructure enhance long-term productivity by influencing the efficiency of capital allocation. Private consumption responds positively (+1.09%, Q1), likely reflecting improved household confidence and future income expectations, as supported by the permanent income hypothesis (Friedman 1957) and the life-cycle hypothesis (Modigliani & Brumberg 1954), which suggest that agents smooth consumption based on expected lifetime resources. In contrast, private investment experiences a sharp but short-lived contraction (−5.07%, Q1), possibly due to front-loaded adjustment costs, heightened uncertainty during the reform implementation phase, or temporary crowding out effects. These dynamics are consistent with transition economy literature (Campos & Coricelli, 2002), which documents temporary disruptions in investment behavior during structural shifts. The overall impulse profile suggests that reforms initially introduce frictions in investment allocation, followed by sustained gains in productivity and consumption driven by enhanced fiscal credibility and an improved macroeconomic environment.
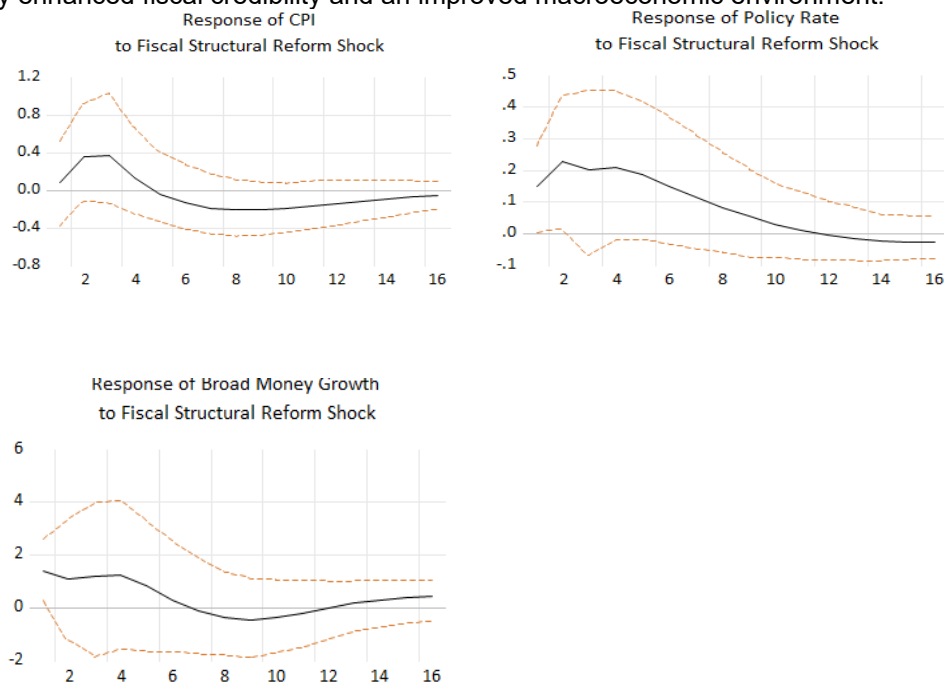


*Figure 2. Response of Monetary Sector Indicators to Fiscal Structural Reform Shock. Source: The chart was compiled by the authors based on their calculations.*

In the real sector, fiscal structural reform shocks (ΔFSRI) account for 8.8% of the forecast error variance in private investment and 15.6% in productivity (proxied by output or total factor productivity measures). These shares underscore the structural relevance of reform-induced credibility, predictability, and institutional strengthening for supply-side dynamics. From the perspective of neoclassical and endogenous growth models, such outcomes reflect improved capital allocation, reduced investment uncertainty, and the facilitation of long-term growth through enhanced efficiency and innovation capacity. In contrast, private consumption demonstrates a comparatively modest variance share of

7.6%, indicating that household responses to fiscal reform are more attenuated. This can be attributed to the indirect nature of the transmission mechanism, where consumption reacts not to reforms per se, but to their second-order effects via employment, income stability, and inflation expectations. These findings align with theoretical predictions that consumption smoothing behavior and precautionary savings dampen the immediate observable effects of fiscal reform shocks on household demand.

*In the monetary sector,* fiscal reform shocks lead to a modest yet consistent disinflationary effect, with CPI declining by 0.36% at Q3, suggesting that improved fiscal credibility and expenditure discipline help anchor inflation expectations. The central bank policy rate increases slightly (+0.23% at Q3), indicating a mild monetary policy adjustment aligned with improved fiscal fundamentals.
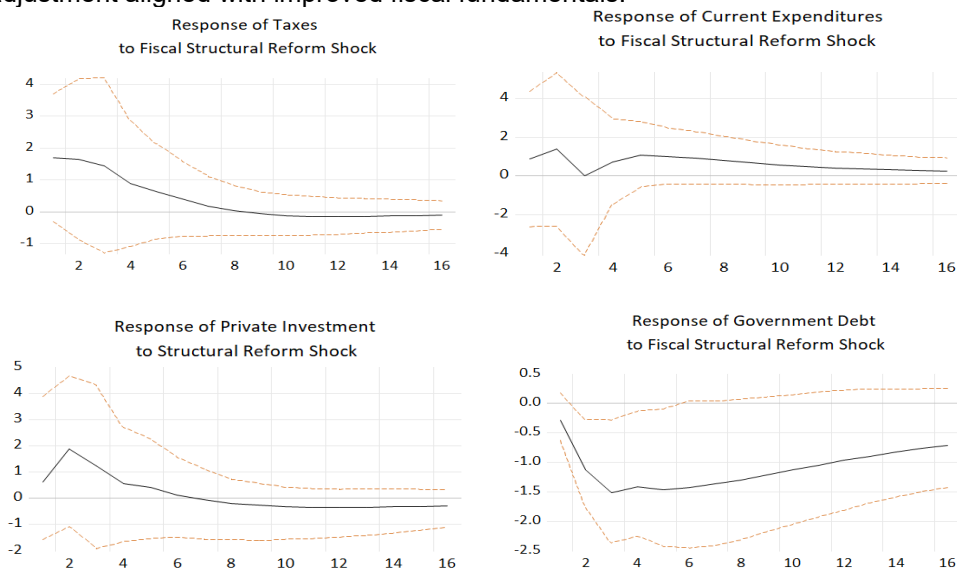


Figure 3. Response of Fiscal Sector Indicators to Fiscal Structural Reform Shock.Source: The chart was compiled by the authors based on their calculations.

The contribution of reforms to variance in monetary sector indicators is more modest but still economically meaningful. The results further reveal that ΔFSRI explains **6.7%** of inflation dynamics, **9.2%** of policy rate variation, and **5.6%** of M2 growth variance. These findings support the theoretical view that credible fiscal reform reduces fiscal dominance and enhances the independence and responsiveness of monetary authorities. They also highlight the role of fiscal-monetary interaction in stabilizing expectations and reinforcing macroeconomic discipline.

*The fiscal model* reveals a clear and compelling reform transmission channel. Tax revenue exhibits the most immediate and pronounced response, increasing by 1.69% in Q1 and remaining persistently elevated, which aligns with reforms enhancing tax policy design, administrative enforcement, and digitalization. Public investment rises significantly by 1.89% in Q2, reflecting reform-driven improvements in capital budgeting, procurement transparency, and expenditure efficiency. Current public expenditure responds moderately, with a 0.86% increase in Q1, suggesting that reforms may enable reallocation toward priority sectors without inducing nominal expansion. Government debt-to-GDP declines gradually, reaching a peak negative impact of −1.51% in Q3, indicating enhanced fiscal sustainability driven by improved revenue mobilization and expenditure discipline. These dynamics confirm that fiscal structural reforms play a critical

role in strengthening fiscal capacity while supporting debt reduction through institutional upgrading rather than austerity-based consolidation.

In the fiscal block, ΔFSRI accounts for **6.7%** of the variance in tax revenue, indicating meaningful gains in revenue mobilization driven by improved compliance, digitalization, and institutional efficiency. Public investment variance is explained at **7.8%**, reflecting enhanced planning, execution, and governance of capital expenditures. Government debt-to-GDP exhibits a particularly strong connection to reform shocks, with **12.8%** of its forecast variance attributed to ΔFSRI, underscoring the critical role of fiscal rules, debt management frameworks, and spending controls in promoting sustainability. Public expenditure, while less sensitive, still shows **3.5%** of its variance explained by reforms, implying moderate responsiveness of recurrent spending to institutional and budgetary restructuring. Together, these results support the view that fiscal structural reforms are pivotal in enhancing the performance and discipline of public finances through both revenue and expenditure channels.
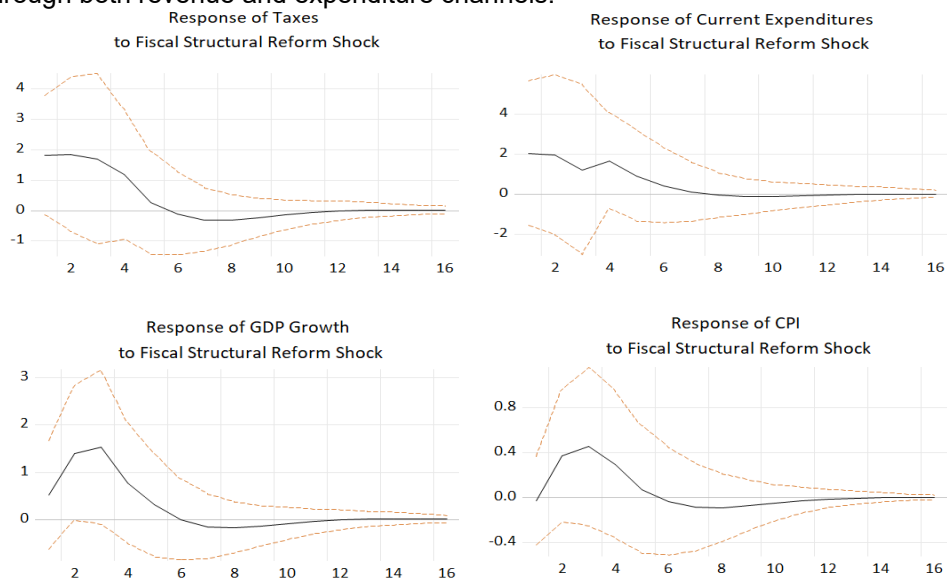


*Figure 4. Response of Macroeconomic Indicators to Fiscal Structural Reform Shock (Combined model). Source: The chart was compiled by the authors based on their calculations.*

**The combined model** consolidates systemic transmission across fiscal, real, and monetary channels. GDP growth responds significantly to reform shocks, peaking at +1.53% in Q3, and sustaining elevated levels thereafter, capturing the cumulative effects of improved fiscal capacity, enhanced productivity, and moderated inflation. The tax revenue response reaches +1.82% in Q2, corroborating the persistence of institutional improvements in revenue administration. CPI declines steadily, mirroring disinflationary effects via enhanced fiscal credibility. Forecast error variance decomposition shows that ΔFSRI accounts for 8.7% of GDP growth variation, 11.2% of tax revenue variance, 6.5% of public expenditure, and 6.2% of private consumption variance.

These results reaffirm the central thesis that fiscal structural reforms are macroeconomically consequential, not merely technocratic. They act through multiple channels—revenue mobilization, expenditure rationalization, productivity enhancement, and inflation control—to improve output and stabilize public finances. The consistency between sectoral and combined models underscores the validity of the empirical approach and provides compelling evidence for reform-based policy design in small open

economies. The timing and persistence of responses further support the importance of institutional credibility, administrative capacity, and investor expectations in determining reform success. Taken together, the findings emphasize the need for sustained reform momentum to secure broad-based economic resilience and long-term growth.

## Discussion and Policy Implications

The empirical findings of this study confirm the macroeconomic significance of fiscal structural reforms in Armenia. These reforms yield both statistically robust and economically substantial effects across fiscal, real, monetary, and aggregated macroeconomic indicators. The analysis provides key insights into the channels through which reforms operate and offers practical guidance for designing, sequencing, and sustaining reform efforts in transition economies.

First, the strong and immediate responses of tax revenue and public investment to reform shocks highlight the effectiveness of institutional improvements in public finance. The observed 1.69% increase in tax revenue and 1.89% increase in public investment within the first two quarters following reform shocks reflect enhanced capacity and efficiency in revenue administration and capital budgeting. These results align with prior research emphasizing the importance of institutional strengthening in promoting fiscal sustainability and allocative efficiency (Gupta et al., 2007; Crispolti et al., 2022). For Armenia, these gains reflect concrete improvements in tax compliance systems, medium-term expenditure frameworks, and infrastructure governance. Policymakers should thus treat fiscal reform as a strategic tool for growth-enhancing fiscal transformation, not merely deficit correction.

Second, real sector outcomes illustrate the supply-side potency of fiscal structural reform. While private investment shows an initial contraction, productivity increases by 1.60%, and consumption strengthens, indicating improved resource allocation and macroeconomic confidence. These results support the endogenous growth literature, which links institutional quality and effective public spending to long-term output performance (Barro, 1990; Romer, 1990). In Armenia's context, productivity gains highlight how reform credibility and improved fiscal frameworks contribute to economic modernization and private sector dynamism.

Third, monetary responses — though more moderate — reveal that reforms contribute to macroeconomic stabilization. The 0.36% decline in CPI and marginal increase in policy rates signal improved policy credibility and a reduction in inflationary pressures, consistent with reduced fiscal dominance and enhanced central bank autonomy. These findings echo theoretical expectations that credible fiscal rules support monetary policy effectiveness by anchoring inflation expectations.

The combined SVAR model corroborates these findings at the systemic level. It shows that ΔFSRI shocks explain 8.7% of GDP growth variance, with additional explanatory power across tax revenue, government spending, and consumption. This confirms that fiscal reforms exert broad-based macroeconomic influence that transcends administrative boundaries. The alignment between sectoral and combined model results reinforces the validity of the modeling strategy and the interconnectedness of macroeconomic systems.

From a policy standpoint, the study generates several key implications:

- **Prioritize high-impact reforms:** Tax administration, capital budgeting, and fiscal transparency reforms yield the most significant macroeconomic returns and should be sequenced early.
- **Build institutional trust and enforcement mechanisms:** Reforms require credible institutions, legal safeguards, and digital monitoring systems to be effective. Reform success hinges on operational execution, not just legislation.

- **Preserve reform momentum:** The positive effects of reform accumulate and amplify over time. Delays, reversals, or partial implementation risk dissipating reform dividends.
- **Adapt methodology to other contexts:** While Armenia is the focus, the analytical approach and empirical findings have relevance for other post-Soviet and emerging market economies seeking to evaluate and calibrate their reform strategies.

In conclusion, this study reaffirms that fiscal structural reforms are not marginal policy adjustments but transformative interventions with systemic macroeconomic implications. By fostering revenue mobilization, investment efficiency, and macroeconomic stability, such reforms can form the institutional backbone of a sustainable growth model. The results call for a strategic shift from short-term fiscal targets to long-term structural resilience through evidence-based reform design, credible implementation, and policy coherence.

## Conclusion

This study assessed the macroeconomic consequences of fiscal structural reforms in Armenia using a suite of sectoral SVAR models and a first-differenced fiscal structural reform index (ΔFSRI) to identify structural shocks. The analysis provided empirical evidence on how reform impulses affect fiscal, real, monetary, and aggregate macroeconomic indicators over a 16-quarter horizon.

The results demonstrate that fiscal structural reforms are not limited to administrative enhancements but produce substantial, measurable effects on core macroeconomic variables. Reform shocks increase tax revenue and public investment, reduce public debt ratios, enhance productivity, support private consumption, and moderate inflation. The combined SVAR model confirms that reforms contribute to GDP growth and system-wide macroeconomic improvement, substantiating the economic relevance of ΔFSRI shocks beyond individual policy domains.

These findings lend strong support to the proposition that well-sequenced, credible fiscal reforms act as effective instruments of macroeconomic stabilization and long-term development. The evidence emphasizes the importance of institutional design, policy coordination, and reform credibility in maximizing the returns to reform. The framework used here offers a replicable approach for assessing reform effectiveness in other transition and emerging market economies.

In light of global economic uncertainty and ongoing fiscal challenges, the Armenian case illustrates the development potential of sustained structural reform. Fiscal reforms should be understood not as episodic adjustments but as ongoing strategic commitments to build fiscal resilience, stimulate private sector activity, and improve macroeconomic governance. Future reform agendas should focus on institutional deepening, reform consolidation, and evidence-based calibration to secure lasting economic gains.

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# ՀԱՐԿԱԲՅՈՒՋԵՏԱՅԻՆ ԿԱՌՈՒՑՎԱԾՔԱՅԻՆ ԲԱՐԵՓՈԽՈՒՄՆԵՐԻ ՄԱԿՐՈՏՆՏԵՍԱԿԱՆ ՀԵՏԵՎԱՆՔՆԵՐԻ ԳՆԱՀԱՏՈՒՄԸ ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ՕՐԻՆԱԿՈՎ

## ՆԱՐԻՆԵ ՊԵՏՐՈՍՅԱՆ

*Հայաստանի պետական տնտեսագիտական համալսարանի կիրառական
տնտեսագիտության ամբիոնի ասպիրանտ,
ք. Երևան, Հայաստանի Հանրապետություն*

Կառուցվածքային բարեփոխումների և վերջիններիս տնտեսական հետևանքների գնահատման հիմնախնդիրը ժամանակակից միջազգային գիտական քննարկումների ամենաթեժ կետերից է: Հայաստանյան տնտեսությունում անկախացմանը հաջորդող ժամանակահատվածում իրականացված կառուցվածքային բարեփոխումների ուսումնասիրությունը փաստում է, որ վերջիններիս շարքում առանցքային ներդրում ունեն հարկաբյուջետային կառուցվածքային բարեփոխումները: Ուստի՝ սույն հոդվածի ***նպատակը*** հարկաբյուջետային կառուցվածքային բարեփոխումների մակրոտնտեսական դերի և ազդեցության գնահատումն է՝ որպես փոքր բաց անցումային տնտեսություններից մեկի՝ Հայաստանի Հանրապետության տնտեսության զարգացման խթաններից մեկը: Հիմնական մակրոտնտեսական ցուցանիշների վրա հարկաբյուջետային կառուցվածքային բարեփոխումների ազդեցության գնահատման նպատակով ***խնդիր է դրվել*** սույն հոդվածում դրանք դիտարկելու որպես քաղաքականության ցնցումներ՝ բերելով քանակական գնահատման դաշտ, և գնահատելու հարկաբյուջետային կառուցվածքային բարեփոխումների ազդեցությունը մակրոտնտեսական առավել առանցքային ցուցանիշների վրա:

Առաջադրված խնդիրը լուծելու նպատակով կիրառվել են ***տնտեսամաթեմատիկական մոդելավորման գործիքներ, վիճակագրական, վերլուծական և այլ մեթոդներ***: Մասնավորապես, կառուցվածքային վեկտոր ավտոռեգրեսիոն (SVAR) մոդելի կիրառմամբ հոդվածում գնահատվել է բարեփոխումների ազդակների (շոկերի) ազդեցությունը հարկային եկամուտների, պետական ներդրումների, պետական պարտքի, մասնավոր հատվածի ակտիվության, գների կայունության և տնտեսական աճի վրա: Գնահատումներն իրականացվել են 4 տարբեր ուղղություններով՝ հարկաբյուջետային, իրական, դրամավարկային և համակցված մակրոտնտեսական մոդելների կառուցմամբ՝ բարեփոխումների ազդեցության փոխանցման տարբեր ուղիները դիտարկելու և գնահատելու նպատակով:

***Հետազոտության արդյունքները*** վկայում են, որ հարկաբյուջետային կառուցվածքային բարեփոխումներն առաջացնում են հարկաբյուջետային կարողությունների, կապիտալի, արտադրողականության և համախառն արդյունքի արագ և կայուն դրական տեղաշարժեր՝ միաժամանակ նպաստելով գնաճի մեղմացմանը և պարտքի նվազեցմանը: Բազմագործոնային մոդելների կիրառմամբ ստացված արդյունքները հավաստում են, որ հարկաբյուջետային կառուցվածքային բարեփոխումները անմիջականորեն և էականորեն ազդում են եկամուտների հավաքագրման և պետական ներդրումների արդյունավետության վրա՝ միաժամանակ կրճատելով պետական պարտքը: Տնտեսության իրական հատվածում բարեփոխումները խթանում են արտադրողականությունը և սպառումը՝ բարեփոխումների նախնական փուլում, սակայն՝ նվազեցնում մասնավոր ներդրումները: Հատկանշական է, որ ստացված արդյունքները փաստում են, որ հարկաբյուջետային կառուցվածքային բարեփոխումներով են բացատրվում դիտարկված հիմնական մակրոտնտեսական ցուցանիշների տատանումների

նշանակալի մասը, ինչը ևս մեկ անգամ փաստում է բարեփոխումների կենտրոնական դերը մակրոտնտեսական առանցքային փոփոխականների ձևավորման գործում։

Այս արդյունքները ընդգծում են բարեփոխումների հավաստիության, հաջորդականության և ինստիտուցիոնալ խորության կարևորությունը մակրո-ֆիսկալ դիմակայունության ապահովման գործընթացում։ Սույն հետազոտությունը նպաստում է բարեփոխումների արդյունավետության վերաբերյալ էմպիրիկ գրականության ձևավորմանը և խորացմանը՝ առաջարկելով կիրառական մեթոդաբանություն՝ փոքր բաց տնտեսություններում բարեփոխումների ընցումների և դրանց մակրոտնտեսական փոխանցման մեխանիզմների քանակականացման համար։

**Հիմնաբառեր**՝ *կառուցվածքային բարեփոխումներ, փոքր բաց տնտեսություն, հարկաբյուջետային կառուցվածքային բարեփոխումներ, Հայաստան, մակրոտնտեսական կայունություն, անցումային տնտեսություններ, պետական ֆինանսների բարեփոխումներ:*

# ОЦЕНКА МАКРОЭКОНОМИЧЕСКОГО ВОЗДЕЙСТВИЯ ФИСКАЛЬНЫХ СТРУКТУРНЫХ РЕФОРМ: ПРИМЕР АРМЕНИИ

## НАРИНЕ ПЕТРОСЯН
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Проблема оценки структурных реформ и их экономических последствий является одним из самых актуальных вопросов современных международных научных дискуссий. Изучение структурных реформ, проведённых в экономике Армении в период после получения независимости показывает, что центральное место среди них занимают фискальные структурные реформы.

Цель данной статьи заключается в оценке макроэкономического значения и влияния структурных налогово-бюджетных реформ как одного из факторов, способствующих экономическому развитию Республики Армения — форме малой открытой переходной экономики.

С целью оценки влияния фискальных структурных реформ на основные макроэкономические показатели в статье они рассматриваются как политические шоки, что позволяет перейти в поле количественного анализа и оценить их воздействие на наиболее важные макроэкономические переменные. Для решения поставленной задачи применялись инструменты экономико-математического моделирования, статистические, аналитические и другие методы. В частности, с использованием структурной векторной авторегрессии (SVAR) в статье оценено влияние реформенных шоков на налоговые доходы, государственные инвестиции, государственный долг, активность частного сектора, ценовую стабильность и экономический рост. Оценка проведена в четырёх направлениях: через построение фискальной, реальной, денежно-кредитной и комбинированной макроэкономических моделей для анализа и оценки различных каналов передачи воздействия реформ.

Результаты исследования показывают, что фискальные структурные реформы вызывают быстрые и устойчивые положительные изменения в налогово-бюджетных возможностях, капитале, производительности и выпуске, в то же время способствуя снижению инфляции и уменьшению государственного долга. Результаты, полученные с использованием многофакторных моделей,

подтверждают, что фискальные структурные реформы оказывают прямое и значительное влияние на сбор доходов и эффективность государственных инвестиций, постепенно сокращая при этом государственный долг. В реальном секторе экономики реформы стимулируют производительность и потребление на начальном этапе, однако уменьшают частные инвестиции. Важно отметить, что полученные результаты свидетельствуют о том, что фискальные структурные реформы объясняют значительную часть колебаний наблюдаемых основных макроэкономических показателей, что ещё раз подтверждает их центральную роль в формировании ключевых макроэкономических переменных.

Эти результаты подчёркивают важность достоверности, последовательности и институциональной глубины реформ в процессе обеспечения макро-фискальной устойчивости. Настоящее исследование способствует формированию и углублению эмпирической литературы по эффективности реформ, предлагая прикладную методологию для количественной оценки реформенных шоков и их макроэкономических трансмиссионных механизмов в условиях небольших открытых экономик.

**Ключевые слова:** *структурные реформы, малая открытая экономика, фискальные структурные реформы, Армения, макроэкономическая стабильность, переходные экономики, реформа государственных финансов.*

**Annex 1**
**Impulse Response Function (IRF) Summary – Peak Effects and Timing**

| Sector | Variable | IRF Peak Impact (%) | Quarter of Peak Response | Economic Explanation |
|---|---|---|---|---|
| Fiscal | Tax Revenue Growth | 1.69 | Q1 | Fiscal reforms aimed at enhancing tax compliance, broadening the base, and modernizing revenue collection mechanisms produce immediate gains in tax revenue within the first quarter. |
| Fiscal | Public Expenditure Growth | 0.86 | Q1 | The initial rise in public expenditure likely reflects transitional costs of reform implementation, such as one-time investments in administrative restructuring or short-term compensation spending. |
| Fiscal | Public Investment Growth | 1.89 | Q2 | Structural improvements in public investment management, such as better project selection, procurement, and execution, yield measurable increases in capital expenditure by the second quarter. |
| Fiscal | Government Debt-to-GDP | -1.51 | Q3 | Reduced fiscal deficits and improved debt management practices result in a gradual decline in the government debt-to-GDP ratio, with the largest effect materializing in the third quarter. |
| Real | Private Consumption Growth | 1.09 | Q1 | Households respond positively to reform-induced confidence and real income expectations, increasing consumption as the economic environment stabilizes and fiscal credibility improves. |

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|---|---|---|---|---|
| **Real** | Private Investment Growth | -5.07 | Q1 | The sharp short-term contraction in investment may indicate adjustment frictions, policy uncertainty, or reallocation delays before long-run crowd-in effects materialize. |
| **Real** | Production Growth | 1.6 | Q1 | Increased productivity reflects improved allocative efficiency and a more conducive environment for private sector growth as a result of fiscal governance enhancements. |
| **Monetary** | CPI Inflation | 0.36 | Q3 | Moderation in inflation over time reflects the anchoring of expectations due to enhanced fiscal discipline, reduced reliance on inflationary financing, and improved policy credibility. |
| **Monetary** | Policy Rate | 0.23 | Q3 | A mild tightening in the policy rate signals that monetary authorities anticipate improved fiscal conditions, reducing risk premia and responding to potential output expansion. |
| **Monetary** | M2 Growth | 1.39 | Q1 | Reform momentum boosts monetary confidence, facilitating credit expansion and increasing the money supply as financial intermediation channels strengthen. |
| **Combined** | Tax Revenue Growth | 1.82 | Q2 | Revenue performance in the combined model mirrors sectoral results, confirming the robustness of tax gains across macroeconomic dimensions. |
| **Combined** | Public Expenditure Growth | 2.05 | Q1 | Aggregate expenditure increases reflect systemic reallocation effects and improved budget execution during reform roll-out phases. |
| **Combined** | GDP Growth | 1.53 | Q3 | Real output responds positively to reform shocks, confirming that fiscal structural reforms generate growth-enhancing spillovers across sectors. |
| **Combined** | CPI Inflation | 0.45 | Q3 | Price stability gains in the combined model reinforce the broader macroeconomic impact of fiscal reforms on expectations, credibility, and inflation inertia. |

**Annex 2**
**FEVD Summary Table – Peak Effects and Timing**

| Sector | Variable | Share of Forecast Error Variance Attributable to ΔFSRI (%) | Quarter of Peak Response | Economic Explanation |
|---|---|---|---|---|
| **Real Sector** | Consumption | 7.6 | Q16 | Fiscal reforms contribute to consumption stability through expectations management and increased disposable income due to efficient reallocation, though the effect remains modest compared to other variables. |

| Real Sector | Investment | 8.8 | Q16 | Reforms significantly affect private investment by improving fiscal credibility, reducing uncertainty, and crowding in private capital. |
|---|---|---|---|---|
| Real Sector | Productivity | 15.6 | Q9 | High contribution reflects the sustained improvement in total factor productivity stemming from structural public finance improvements. |
| Fiscal Sector | Tax Revenue | 6.7 | Q6 | The FSRI shocks strongly influence tax collection, likely via enhanced enforcement, broadening of the tax base, and digitization of fiscal institutions. |
| Fiscal Sector | Public Expenditure | 3.5 | Q10 | Relatively lower effect due to inertia in current expenditure, but still meaningful, suggesting improved budget allocation and transparency. |
| Fiscal Sector | Public Investment | 7.8 | Q8 | Reflects reform-driven improvements in capital expenditure management, enhancing infrastructure investment and boosting growth potential. |
| Fiscal Sector | Government Debt | 12.8 | Q4 | Structural reforms aid in stabilizing and reducing the debt burden, improving fiscal discipline, and long-term sustainability. |
| Monetary Sector | Inflation (CPI) | 6.7 | Q16 | A sizable effect indicates that credible fiscal policy reforms help anchor inflation expectations by reducing fiscal dominance. |
| Monetary Sector | Policy Rate | 9.2 | Q6 | Suggests monetary policy adjusts in response to fiscal reform dynamics, possibly through interest rate normalization aligned with improved fiscal outlook. |
| Monetary Sector | M2 Growth | 5.6 | Q4 | Indicates monetary aggregates respond to structural fiscal consolidation, enhancing financial sector trust and liquidity provision. |
| Combined Model | Tax Revenue | 6.7 | Q16 | Consistent with sectoral models, confirming systemic transmission of reform effects to fiscal revenue capacity. |
| Combined Model | Public Expenditure | 3.5 | Q16 | Reinforces that spending efficiency improves under reform, even when controlling for broader macroeconomic conditions. |
| Combined Model | GDP Growth | 8.7 | Q16 | Substantial variance contribution shows that fiscal structural reforms are important drivers of long-term economic output expansion. |
| Combined Model | Inflation (CPI) | 3.5 | Q16 | Lower than in the monetary model, but still confirms the inflation anchoring role of reform within a broader macroeconomic context. |