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THE SIGNIFICANCE OF EXPENDITURE POLICY IN FOSTERING ECONOMIC GROWTH (CASE OF ARMENIA)

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Abstract: Government budget expenditures can significantly influence a nation's economic performance, either positively or negatively. The article refers to the dynamics, structure and interrelationship of economic growth and budget expenditures in Armenia. The impact of Armenia's budget expenditures, as well as individual items of the functional classification of budget expenditures, on economic growth was estimated using the least squares method. For the research, quarterly data during the 2000-2023 period have been used.

The regression analysis results indicate that Armenia's total budget expenditures positively affect economic growth. Specifically, an increase of 1 percent of budget expenditure would tend to increase economic growth by 0.14 percent after two quarters, all other things being equal.

When analyzing the components of budget expenditures, spending on health and general public services also shows a positive impact on economic growth. An increase of 1 percent of health expenditure will increase economic growth by 0.07% after 3 quarters, and an increase of 1 percent of expenditure on general public services will increase economic growth by 0.05% after two quarters, all other things being equal.

In contrast, spending on defense and public order and safety activities will reduce economic growth: a 1% increase in public order and safety spending will reduce economic growth by 0.06% after two quarters, ceteris paribus.

Keywords: *economic growth, budget expenditure, correlation matrix, regression model, evaluation*

Introduction: Understandings of the impact of budget expenditures change over time. According to the laissez-faire approach, the function of the state is only regulatory in nature, but during the years of the Great Depression, the ideas about the functions of the state changed dramatically, in particular emphasizing the role of budgetary expenditures. Economic theory suggests that government spending should generally promote economic growth. However, there is no single approach on the exact nature of the relationship between expenditures and economic growth. In the exogenous growth model (neoclassical) developed by Solow (1956) and Swan (1956), fiscal policy is not seen as a driver of long-term economic growth. Changes in fiscal variables such as taxes and government spending are considered to have only short-term effects on the economy.

In contrast, the endogenous growth theory, proposed by economists like Romer (1986) and Lucas (1988), challenges this view. According to this theory, economic growth is driven by internal factors within the economy rather than external influences. Endogenous growth models suggest that fiscal policy can affect the rate of economic growth. Specifically, the structure of taxes and the allocation of government spending are believed to influence economic growth by impacting savings rates and investment of human capital.

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Many authors in their research have identified a positive relationship between economic growth and budgetary expenditures. Ram analyzed a time series of data from 115 countries spanning the years 1960 to 1980 to evaluate the relationship between government spending and economic growth. In his model, he expanded the standard production function, Y = f(L, K, G), to incorporate government expenditure (G) as a variable. He concluded that the effect of government expenditure on economic growth is positive (Pula and Elshani, 2018). Bose et al., examining a time series spanning the 1970s and 1980s in 30 developing countries, concluded that public sector spending can indirectly generate economic growth driven by higher marginal productivity of both government and private production factors (Bose et al., 2007). Grigoryan et al. (2021), assessing the impact of public capital investments on economic growth, revealed that public investments play a crucial role in boosting Armenia's GDP and other key macroeconomic indicators.

Concurrently, numerous studies show an inverse relationship between these variables. Landau (1983) examining the time series of 96 countries from 1960-1979, concluded that economic growth shows a negative association with both GDP per capita and the proportion of public consumption expenditures in GDP. Apart from the researches that reveal the correlation between economic growth and spending, there is quite a lot of research that does not give an unambiguous answer about such correlations. Thus, Saez et al. (2017), by assessing time series of European countries between 1994 and 2021, found that governments have the ability to modify their spending to impact the economy. However, the relationship between these variables can be either positive or negative, depending on the country sample, the time period under review, and the specific variables considered. Sometimes the interactions between government spending and economic growth are not so clear-cut and have a dual nature, so identifying the correlation of individual spending components with economic growth is also considered an agenda issue. Thus, as a result of combining fifteen studies, Chapanyan (2021) concluded that a clear relationship exists between the components of public expenditure and economic growth. Furthermore, productive expenditures positively influence economic growth, while non-productive expenditures have a negative impact.

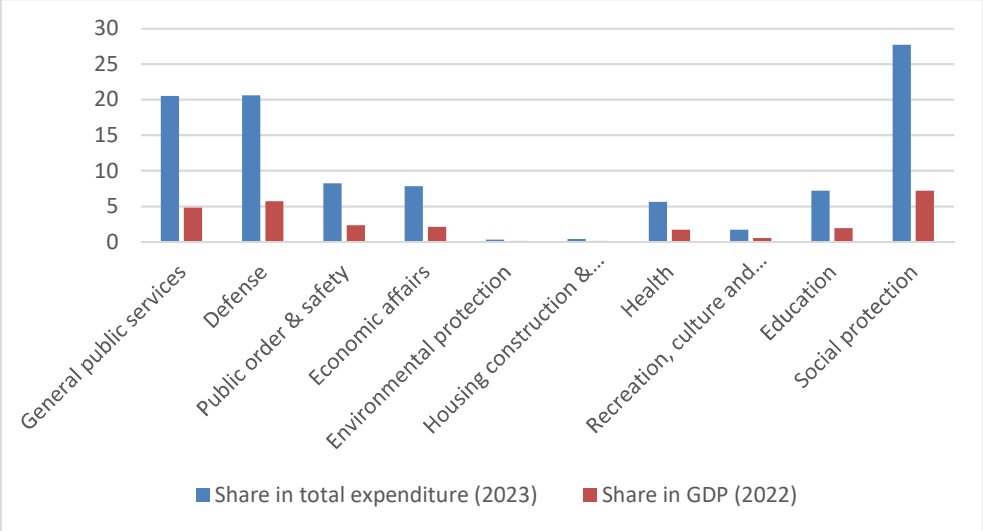
The rate of economic growth, the advancement of social infrastructure, and the modernization of healthcare, education, and social services are influenced by the efficiency of their regulation and the allocation of funds across different sectors. Effective regulation of budget expenditures accelerates the socio-economic development of the state, influences the quality of structural changes in the economy, enhances the effectiveness of fiscal policy, and strengthens the stability of the country's financial system. It can be said that the main condition for the formation of the expenditure part of the budget is the maximum provision of the utility of the state's activities in the conditions of budgetary resource limitations.

Real GDP and budget expenditures. In 2023, the real growth rate of Armenian GDP was 8.7%: increasing the value added in all sectors of the economy (Ministry of Finance of the Republic of Armenia, Report of the state budget of the Republic of Armenia for 2023). Economic growth has been accompanied by growth in domestic and foreign demand. In stimulating domestic demand, the role of budgetary expenditure is significant. An analysis of Armenia's budget indicators reveals that both the revenue and expenditure components of the state budget have steadily risen in absolute terms in recent years. Thus,

in 2023, the revenues of the state budget amounted to 2,358,733.5 million. AMD, or 24.8% of GDP, and expenses: 2 547 624.8 million. AMD or 26.8% of GDP. State budget expenditures rose by 13.6% or 305 billion drams compared to the previous year, primarily driven by increases in capital expenditures, social benefits, pensions, interest payments, and grants. The functional classification of budget expenditures highlights the country's objectives, reflecting the diverse areas and priorities of its socio-economic development.

Figure 1

The structure of Armenian state budget expenditures by functional classification groups .



Source: Report of the state budget of the Republic of Armenia for 2023 and Yearbooks of the Statistical Committee of the Republic of Armenia. https://minfin.am/hy/page/petakan_byujei_hashvetvutyun_2023t_tarekan_, www.armstat.am

Based on the functional classification of Armenia's state budget expenditures the social protection article has the largest proportion of budget expenditures for 2023, making up about 27.7% of the total expenditures. The next largest share of spending is defense and general public services, which are almost equal in share of total spending, around 21%. About 8% of the total expenditure was allocated to public order and safety and economic affairs. Expenditures on education made up 7.2% of total expenses, and health-5.6%. To evaluate the effect of budget expenditures on Armenia's economic growth, we put forward three hypotheses:

***H_0**: Budget expenditures positively influence economic growth,*

***H_1**: Expenditures on defense, public order, and safety negatively impact economic growth,*

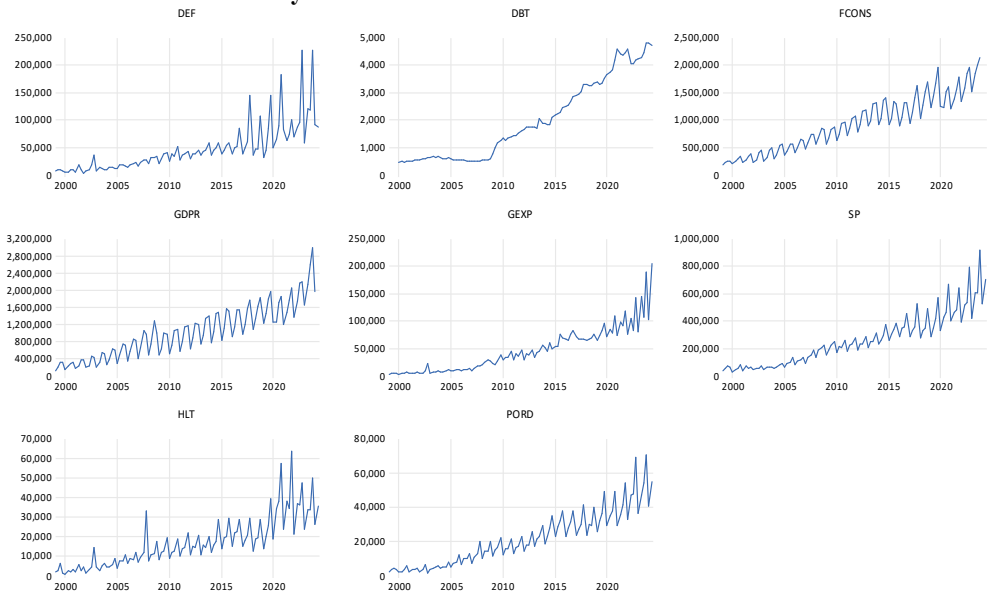
***H_2**: Spending on general public services and healthcare positively affects economic growth.*

In the research, the macroeconomic indicators of Armenia were used on a quarterly basis for the years 2000-2023. The sources of data collection were the reports and annual publications published by the RA Central Bank, the RA Statistical Committee and the RA Ministry of Finance. The regression models include the following indicators: real GDP, mln. AMD (GDPR), final consumption, mln. AMD (FCONS), overoll budget expenses, mln. AMD (SP), general public services, mln. AMD (GEXP), defence, mln. AMD (DEF), health, mln. AMD (HLT), public order and safety, mln. AMD (PORD), public debt, mln. AMD (DBT).

Real GDP is calculated as the ratio of nominal GDP to the CPI. All variables are time series with seasonality (see Figure 2), therefore seasonally adjusted using the Moving average method. Some variables were considered in the models with log values.

Figure 2

Dynamics of the variables in 2000-2023.



Source: Report of the state budget of the Republic of Armenia for 2000-2023 and Yearbooks of the Statistical Committee of the Republic of Armenia, https://minfin.am/hy/page/petakan_byujei_hashvetvutyun_2023t_tarekan_, www.armstat.am

The table of descriptive statistics for the variables indicates that over the period from 2000 to 2023, the average real GDP was 103,696.8 million AMD, the maximum value was registered in the 4th quarter of 2023 and amounted to 2,983,645.0 million AMD, minimum was 164,357.1 million AMD in the 1st quarter of 2000. Overoll spending on average made 261894.9 million AMD, the maximum value was recorded in the 4th quarter of 2023 and amounted to 913689.8 million AMD, the minimum amounting to 32477.9 million AMD in the 1st quarter of 2000. (see Table 1).

Table 1

Descriptive statistics of variables.

	DEF	DBT	FCONS	GDPR	GEXP	SP	HLT	PORD
Mean	47160.63	1916.966	953960.8	1036968.	46230.84	261894.9	17282.43	21819.86
Median	38319.30	1617.460	917870.4	995002.0	39408.35	234834.9	14501.75	19363.10
Maximum	226814.7	4794.900	2136403.	2983645.	189732.4	913689.8	63721.20	70301.40
Minimum	3808.000	479.7000	218585.6	164357.1	3811.800	32477.90	971.9000	1589.200
Std. Dev.	42501.16	1389.126	495565.7	591993.4	37027.77	181484.6	12601.02	15419.21
Skewness	2.229096	0.578275	0.368117	0.637052	1.050147	1.016502	1.282120	0.852097
Kurtosis	8.895028	1.937846	2.218864	3.144862	4.339847	4.039596	4.754864	3.430876
Jarque-Bera	218.5073	9.863110	4.608860	6.577302	24.82571	20.85547	38.61948	12.35974
Probability	0.000000	0.007215	0.099816	0.037304	0.000004	0.000030	0.000000	0.002071
Sum	4527420.	184028.7	91580240	99548911	4438161.	25141908	1659113.	2094706.
Sum Sq. Dev.	1.72E+11	1.83E+08	2.33E+13	3.33E+13	1.30E+11	3.13E+12	1.51E+10	2.26E+10
Observations	96	96	96	96	96	96	96	96

Source: Calculated by author.

The final consumption random variable has a normal distribution (Jarque-Bera= 4.608, Prob(JB)= 0.09>0.05), and the null hypothesis that the other variables have a normal distribution is rejected.

The linear correlation coefficients of the variables prove that the selected variables have a strong positive linear correlation relationship with real GDP. In particular, the correlation coefficient of only budget expenditures and real GDP is Rxy=0.97 (see Table 2).

Table 2

Correlation matrix of variables.

	DEF	DBT	FCONS	GDPR	GEXP	SP	HLT	PORD
DEF	1	0.77843406...	0.85202610...	0.86204990...	0.88466300...	0.93924657...	0.86869115...	0.91421634...
DBT	0.77843406...	1	0.89957481...	0.85517307...	0.92975800...	0.90697457...	0.81836303...	0.89949158...
FCONS	0.85202610...	0.89957481...	1	0.97907493...	0.93005328...	0.95408581...	0.87468862...	0.96469803...
GDPR	0.86204990...	0.85517307...	0.97907493...	1	0.92064015...	0.95047628...	0.87823515...	0.95826805...
GEXP	0.88466300...	0.92975800...	0.93005328...	0.92064015...	1	0.97209161...	0.88136817...	0.96051694...
SP	0.93924657...	0.90697457...	0.95408581...	0.95047628...	0.97209161...	1	0.93194294...	0.99046136...
HLT	0.86869115...	0.81836303...	0.87468862...	0.87823515...	0.88136817...	0.93194294...	1	0.92797015...
PORD	0.91421634...	0.89949158...	0.96469803...	0.95826805...	0.96051694...	0.99046136...	0.92797015...	1

Source: Calculated by author.

The variables included in the regression model are time series, therefore they should be considered stationary. We checked the stationarity of the variables with the Dickey-Fuller unit root test. For total budget expenditures and general public services, we applied the test equation with a constant, and for real GDP, final consumption, defense, health, public order and safety, and public debt, the test equation with a constant and linear trend. All variables are I(1) processes, i.e., they are made stationary by observing first-order differences ` $\Delta Y_t = Y_t - Y_{t-1}$ (see Table 3):

Table 3

The stationarity of the variables.

Variable	equation of the ADF test	ADF statistic	5% critical level	I(d)
LGDPR	Constant, linear trend	-1.954	-3.458	
D(LGDPR)	Constant, linear trend	-3.652	-3.458	I(1)
LSP	Constant, linear trend	-1.809	-3.457	
D(LSP)	Constant	-4.726	-2.891	I(1)
LFCONS	Constant, linear trend	-1.715	-3.457	
D(LFCONS)	Constant, linear trend	-5.363	-3.457	I(1)
LGEXP	Constant, linear trend	-1.895	-3.456	
D(LGEXP)	Constant	-10.108	-2.891	I(1)
DEFSA	Constant, linear trend	2.403	-3.461	
D(DEFSA)	Constant, linear trend	-6.742	-3.460	I(1)
LDBT	Constant, linear trend	-2.000	-3.457	
D(LDBT)	Constant, linear trend	-6.980	-3.457	I(1)
LPORD	Constant, linear trend	-1.373	-3.456	
D(LPORD)	Constant, linear trend	-10.872	-3.456	I(1)

Regression analyses: To assess the impact of expenses on GDP growth, we built three multifactor regression models.

Table 4

Output of the Model 1.

Dependent Variable: D(LGDPR)
Method: Least Squares
Date: 10/09/24 Time: 17:08
Sample (adjusted): 2000Q2 2024Q1
Included observations: 96 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.027164	0.008330	3.260922	0.0016
D(LSP(-2))	0.141544	0.062631	2.259962	0.0262
D(LSP(-4))	-0.172421	0.061092	-2.822329	0.0059
D(LGDPR(-1))	-0.231861	0.066904	-3.465571	0.0008
D(LGDPR(-2))	-0.394424	0.084961	-4.642417	0.0000
D(LGDPR(-4))	0.508826	0.083321	6.106829	0.0000

R-squared	0.665794	Mean dependent var	0.025868
Adjusted R-squared	0.647227	S.D. dependent var	0.114264
S.E. of regression	0.067867	Akaike info criterion	-2.482075
Sum squared resid	0.414533	Schwarz criterion	-2.321803
Log likelihood	125.1396	Hannan-Quinn criter.	-2.417290
F-statistic	35.85894	Durbin-Watson stat	2.305592
Prob(F-statistic)	0.000000		

The first regression model captures the relationship solely between budget expenditures and economic growth. As shown in Table 5, the residuals of the model are homoscedastic (Prob(F statistic)=0.262, Prob(Chi-Square)=0.255) and independent of each other (Prob(F statistic)=0.151 and Prob(Chi-Square)=0.133).

Table 5

Heteroscedasticity and autocorrelation tests of residuals in Model 1.

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.929071	Prob. F(2,88)	0.1514
Obs*R-squared	4.032104	Prob. Chi-Square(2)	0.1332

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.320352	Prob. F(5,90)	0.2626
Obs*R-squared	6.560638	Prob. Chi-Square(5)	0.2554
Scaled explained SS	7.975518	Prob. Chi-Square(5)	0.1576

The model does not exhibit multicollinearity, VIF <5 for all explanatory variables (see Table 6). B parameters estimated by the least squares method are BLUE grades. The Ramsey test indicates that the model specification is correct (Prob(F-statistic)=0.7848>0.05), the null hypothesis is not rejected. According to the results of Model 1, at the 5% significance level, a 1% increase in budget spending increases economic growth by 0.14% after 2 quarters, but slows it by 0.17% after four quarters. The variables included in the model explain 64.72% of the economic growth, and the rest by other factors.

Table 6

Multicollinearity test results for Model 1.

Variance Inflation Factors
Date: 10/09/24 Time: 17:13
Sample: 1999Q1 2024Q3
Included observations: 96

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	6.94E-05	1.446283	NA
D(LSP(-2))	0.003923	1.146698	1.108430
D(LSP(-4))	0.003732	1.161335	1.111882
D(LGDPR(-1))	0.004476	1.239450	1.187811
D(LGDPR(-2))	0.007218	1.965638	1.898179
D(LGDPR(-4))	0.006942	2.009085	1.902701

The second regression model represents the relationship between spending on general public services and defense and final consumption with economic growth.

Table 7

Output of the Model 2.

Dependent Variable: D(LGDPR)
Method: Least Squares
Date: 10/09/24 Time: 17:17
Sample (adjusted): 2000Q2 2023Q4
Included observations: 95 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.021876	0.009476	2.308576	0.0233
D(DEFSA)	-8.48E-07	3.42E-07	-2.480389	0.0150
D(LFCONS)	0.637453	0.107507	5.929398	0.0000
D(LGEXP(-2))	0.057463	0.028821	1.993802	0.0493
D(LGDPR(-1))	-0.300062	0.084881	-3.535099	0.0007
D(LGDPR(-2))	-0.348854	0.090068	-3.873250	0.0002
D(LGDPR(-3))	-0.205883	0.089278	-2.306096	0.0235
D(LGDPR(-4))	0.366505	0.084450	4.339894	0.0000

R-squared	0.748716	Mean dependent var	0.024274
Adjusted R-squared	0.728497	S.D. dependent var	0.113791
S.E. of regression	0.059292	Akaike info criterion	-2.732233
Sum squared resid	0.305852	Schwarz criterion	-2.517170
Log likelihood	137.7811	Hannan-Quinn criter.	-2.645332
F-statistic	37.03164	Durbin-Watson stat	2.146769
Prob(F-statistic)	0.000000		

The residuals in Model 2 are homoscedastic (Prob(F)=0.207, Prob(Chi-Square)=0.203), are not autocorrelated (Prob (F)=0.183 և Prob(Chi-Square)=0.155) (see Table 8):

Table 8

Heteroscedasticity and autocorrelation tests of residuals in Model 2.

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.731121	Prob. F(2,85)	0.1833
Obs*R-squared	3.718116	Prob. Chi-Square(2)	0.1558

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.421237	Prob. F(7,87)	0.2071
Obs*R-squared	9.748694	Prob. Chi-Square(7)	0.2033
Scaled explained SS	10.93566	Prob. Chi-Square(7)	0.1415

The model does not suffer from multicollinearity (see Table 9). According to the results of the Ramsey test, the model specification is correct (Prob(F-statistic)=0.6717>0.05).

Table 9

Multicollinearity test results for Model 2.

Variance Inflation Factors
Date: 10/09/24 Time: 17:22
Sample: 1999Q1 2024Q3
Included observations: 95

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	8.98E-05	2.426400	NA
D(DEFSA)	1.17E-13	1.263213	1.254396
D(LFCONS)	0.011558	1.455062	1.330532
D(LGEXP(-2))	0.000831	1.151878	1.127343
D(LGDPR(-1))	0.007205	2.561503	2.466472
D(LGDPR(-2))	0.008112	2.840790	2.724834
D(LGDPR(-3))	0.007971	2.816619	2.690151
D(LGDPR(-4))	0.007132	2.503097	2.391281

Expenditures on general public services are one of the main directions of government spending, the ratio of expenditures on general services to GDP reflects the size of a country's government. These are the costs that are directed to ensuring the normal functioning of the governing bodies. In 2022 expenditures on general public services of Armenia amounted to 4.8% of the GDP, for comparison, let's note that this indicator is 10% and 4.9% in neighboring Georgia and Azerbaijan, respectively, and in developed European countries (France, Germany, Austria, Italy) it averages 6.3% (IMF database). Based on the results of Model 2, a 1% increase in spending on general public services will lead to a 0.05% increase in economic growth after two quarters, ceteris paribus. Defense spending is the second largest share of GDP, accounting for 5.7% of GDP. For comparison, let's note that this indicator is 1.5% and 4.6% in Georgia and Azerbaijan, respectively, and in developed European countries (France, Germany, Austria, Italy) it fluctuates around 1.5%, and from more militarized countries, for example, in Israel, the USA, this indicator is 4.7 and 3.5%, respectively (IMF database). According to model 2, the increase in Armenian defense expenses leads to a decrease in economic growth. A 1%

increase in final consumption expenditures contributes to a 0.55% increase in economic growth in the current quarter, ceteris paribus.

The third regression model illustrates the relationship between spending on health, public order and safety, public debt, final consumption, and economic growth.

Table 10

Output of the Model 3.

Dependent Variable: D(LGDPR)
Method: Least Squares
Date: 10/09/24 Time: 17:26
Sample (adjusted): 2000Q3 2023Q4
Included observations: 94 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.036355	0.009652	3.766411	0.0003
D(LHLT(-3))	0.073368	0.016829	4.359635	0.0000
D(LFCONS)	0.549151	0.091237	6.018940	0.0000
D(LDBT)	-0.478269	0.098409	-4.860029	0.0000
D(LPORD(-2))	-0.059692	0.023702	-2.518442	0.0137
D(LGDPR(-1))	-0.463215	0.084526	-5.480130	0.0000
D(LGDPR(-2))	-0.345925	0.083961	-4.120058	0.0001
D(LGDPR(-3))	-0.260343	0.086089	-3.024129	0.0033
D(LGDPR(-4))	0.417378	0.081142	5.143825	0.0000
D(LGDPR(-5))	0.174588	0.078752	2.216929	0.0293

R-squared	0.827160	Mean dependent var	0.023639
Adjusted R-squared	0.808641	S.D. dependent var	0.114232
S.E. of regression	0.049970	Akaike info criterion	-3.054487
Sum squared resid	0.209751	Schwarz criterion	-2.783924
Log likelihood	153.5609	Hannan-Quinn criter.	-2.945199
F-statistic	44.66649	Durbin-Watson stat	2.049262
Prob(F-statistic)	0.000000		

As shown in Table 11, the residuals of the model are homoscedastic (Prob(F)=0.4493, Prob(Chi-Square)=0.43,9) and are independent of each other (Prob (F)=0.4812 և Prob(Chi-Square)=0.4355).

Table 11

Heteroscedasticity and autocorrelation tests of residuals in Model 3.

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.737989	Prob. F(2,82)	0.4812
Obs*R-squared	1.662058	Prob. Chi-Square(2)	0.4356

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.996591	Prob. F(9,84)	0.4493
Obs*R-squared	9.068759	Prob. Chi-Square(9)	0.4310
Scaled explained SS	7.800419	Prob. Chi-Square(9)	0.5544

There is no evidence of multicollinearity in the model. The Ramsey test indicates that the model specification is correct (Prob(F-statistic)=0.6717>0.05).

Table 12

Multicollinearity test results for Model 3.

Variance Inflation Factors
Date: 10/09/24 Time: 17:31
Sample: 1999Q1 2024Q3
Included observations: 94

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	9.32E-05	3.507254	NA
D(LHLT(-3))	0.000283	1.050703	1.047164
D(LFCONS)	0.008324	1.475311	1.348474
D(LDBT)	0.009684	1.437302	1.228203
D(LPORD(-2))	0.000562	1.307019	1.288957
D(LGDPR(-1))	0.007145	3.569810	3.429588
D(LGDPR(-2))	0.007049	3.463270	3.311096
D(LGDPR(-3))	0.007411	3.653602	3.501394
D(LGDPR(-4))	0.006584	3.014433	2.903657
D(LGDPR(-5))	0.006202	3.063689	2.927600

The health sector in Armenia is financed by the state and private sectors, as well as by various international structures. According to the results of the model, in the case of a 1% increase in health costs, economic growth will increase by 0.07% after 3 quarters, and a 1% increase in spending on public order and safety will reduce economic growth by 0.06% after 2 quarters, ceteris paribus. Studies show that health spending in low-income countries is largely financed by private sources- 44%, and external sources- 29%, while in high-income countries, the share of public spending dominates, at 70%. Armenia has a pretty low share of public expenditure financing of the health sector, 1.7% of GDP, while in countries with a high-income (France, Germany, Austria, Italy) it is 8-9%. Funds allocated to public order and safety amounted to 2.3% of GDP, for comparison, this indicator is 1.9% and 2.4% in neighboring Georgia and Azerbaijan, respectively, and in developed European countries (France, Germany, Austria, Italy) this indicator varies around 1.3-1.9% (IMF database).

Conclusion: According to the econometric models built on the basis of quarterly data of 2000-2023, total budget expenditures, as well as separate expenditure items: general public services, health, public order and safety, defense, have a statistically significant impact on economic growth, with their effects being reflected in economic growth after a certain time lag. An increase in total budget expenditures contributes to economic growth, with the effects becoming apparent after a certain time lag; this effect acquires a negative sign, which can be interpreted as this cost multiplier is less than one, which can be interpreted as being less than one of the multiplier of these expenditures, because a part of budget expenses is returned to society in the form of various payments, and a part of it is directed to savings, reducing the impact of spending on economic growth, that is, one unit money spent leads to the formation of less than one additional unit money of income.

And from the articles of functional classification, economic growth is promoted by general public services and health spending. On the other hand, expenditures on public order and safety and defense, inhibit economic growth. The latter two can be considered the purest public goods and services, which in the professional literature are considered together as unproductive expenditure and it is assumed that their effect on economic

growth should be of the opposite sign.

At the same time, the negative relationship between expenditures on public order and safety and economic growth can be interpreted as an artificial overblown of these expenditures: the share of such expenditures in Armenia's GDP exceeds that of high-income countries, and the initial level of these expenditures may already be considered "excessive" for Armenia's economy, and its further growth will become counterproductive.

The obtained results can be the basis for the development of macroeconomic policies, which will be aimed at the formation of a more targeted structure of budget expenditures, however, as obvious as it is that the expenditures directed to national security and defense are unproductive, the choice between military and development expenditures requires a policy-maker to take into consideration the relative values of those costs.

References

Bose N., Haque M E., Osborn D.R., "Public expenditure and economic growth: A disaggregated analysis for developing countries." The Manchester School, 75 (5), 2007, p. 549.

Chapanyan T., Theoretical Foundations of the Relationship Between the Structure of Public Spending and Economic Growth, Scientific Journal of Public Administration 1/2021, pp. 77-88, https://paara.am/wp-content/uploads/2023/07/taguhi-chapanyan.pdf

Grigoryan K., Petrosyan G., Vardanyan K., Avagyan G. (2021). Assessment of the effects of public investment on GDP growth: case of Armenia. Sciences of Europe, No. 78, Vol. 2, pages 46-60. DOI: 10.24412/3162-2364-2021-78-2-46-60, https://www.europe-science.com/wp-content/uploads/2021/09/Sciences-of-Europe-No-78-2021-Vol.-2.pdf

IMF database, https://data.imf.org

Landau, D. (1983). Government Expenditure and Economic Growth: A Cross-Country Study. Southern Economic Journal, 49(3), 783–792. https://doi.org/10.2307/1058716

Leke PULA, Alban ELSHANI, "Role of public expenditure in economic growth: Economic evidence from Kosovo 2002-2015", Baltic journal of real estate economics and construction management, 2018, p. 77.

Lucas, R. E. (1988). On the Mechanics of Economic Development. Journal of Monetary Economics, 22, 3–42.

Ministry of Finance of the Republic of Armenia, Report of the state budget of the Republic of Armenia for 2023, https://minfin.am/hy/page/petakan_byujei_hashvetvutyun_2023t_tarekan_

Romer, P. M. (1986). Increasing Returns and Long-Run Growth. The Journal of Political Economy, 94(5), 1002–1037. https://doi.org/10.1086/261420

Sáez, M. P., Álvarez-García, S., & Rodríguez, D. C.(2017). Government expenditure and economic growth in the European Union countries: New evidence. Bulletin of Geography. Socio-Economic Series, 36(36), 127–133. DOI http://dx.doi.org/10.1515/bog-2017-0020%20

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. The Quartely Journal of Economics, 70(1), 65–94.

Statistical Committee of the Republic of Armenia, Yearbooks of 2000-2023, www.armstat.am

Swan, T. W. (1956). Economic Growth and Capital Accumulation. Economic Record, 32(2), 334– 361. https://doi.org/10.1111/j.1475-4932.1956.tb00434.x