SemantJournals

American Journal of Management Practice (2997-9366), Vol 3, No. 4, 2026

Article

The Role of Tax Revenues in the Economic Development of Uzbekistan

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Abstract: This article is devoted to studying the importance of tax revenues in the economic development of Uzbekistan. The study analyzed the long-term impact of tax revenues on economic growth, as well as the effectiveness of tax policy. In the conditions of Uzbekistan, the main tax revenues - value added tax and profit tax - play an important role in the formation of state budget revenues.

Keywords: Tax Revenues, State Budget, Economic Development, Human Development Index (HDI), Excise Tax, Value Added Tax (VAT), Corporate Income Tax, Indirect Taxes, ARDL Model, Cointegration Analysis, ADF Test, Economy Of Uzbekistan

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1. Introduction

Uzbekistan's economic development depends on sustainable growth in various sectors of the country, including industry, services, and agriculture. Economic development not only increases production, but also stimulates technological and institutional changes. At the same time, economic growth also affects the development of social, cultural, and educational sectors, improving the living standards of the population. To achieve sustainable economic development, the government must effectively manage financial resources. Tax revenues play an important role in this process. Taxes are the main tool for attracting the necessary funds to the state, financing budget expenditures, redistributing income, and ensuring economic stability. At the same time, an effective tax system helps to stimulate investment and improve the social well-being of the population.

Uzbekistan stands out among the countries of the world for its level of economic development. Economic development, along with increasing production, also stimulates technological and institutional changes [1]. In economically developed countries, social, cultural, educational, political and economic standards also increase [2]. At the same time, Belshaw and Livingstone note that economic development serves to improve the basic living standards of the population [3].

To achieve sustainable economic development, the government must regularly attract revenues to the budget. In the conditions of Uzbekistan, tax revenues are an important tool in this process. Taxes play a key role in allocating the necessary financial resources to the state, financing

budget expenditures, redistributing income, ensuring economic stability and efficient resource allocation [4].

As Besley and Persson note, economic changes affect the development of the tax system, which allows for an increase in tax revenues and the introduction of new taxes [5]. At the same time, the collection of tax revenues stimulates the demand for administrative efficiency and infrastructure, as well as social redistribution.

Literature review.

The literature explains tax revenues as a mandatory payment and emphasizes that they are paid by economic entities to the state. In order to achieve sustainable economic development, the government must regularly attract revenues to the budget. In the conditions of Uzbekistan, tax revenues are an important tool in this process. Taxes play a key role in allocating the necessary financial resources to the state, financing budget expenditures, redistributing income, ensuring economic stability, and performing such functions as efficient resource allocation [6]. As Besley and Persson noted, economic changes affect the development of the tax system, which allows for an increase in tax revenues and the introduction of new taxes [7]. In particular, the collection of tax revenues stimulates administrative efficiency and the demand for infrastructure and social redistribution.

At the same time, Chigbu and Njoku argue that tax revenues can be seen as a means of financing state budget expenditures, redistributing income, ensuring economic stability, controlling resource allocation, and stimulating economic growth [8]. Harelimana defines taxes as all types of compulsory contributions collected in the form of income, capital gains, and other compulsory payments, and emphasizes that tax revenue is defined as a compulsory payment made by individuals and organizations to the tax authorities of the state [9].

As Tosun and Abizadeh point out, tax policy is an important tool that directly affects the level of investment and labor supply [10]. At the same time, Moore sees taxes as an objective criterion for measuring the power and legitimacy of the state, since taxes create a platform for political negotiations between various stakeholders in the country. This shows that the efficiency of tax revenue collection is closely related to economic, political, and institutional factors.

In general, the process of tax revenue is carried out through the management of mandatory contributions established by the state and serves to finance the socio-economic needs of society. In the conditions of Uzbekistan, the tax system is formed taking into account the three-level state administration and serves as the main source of income for the central and local budgets. The main tax revenues in this process are profit tax, value added tax, land tax and excise duties, which contribute to stimulating economic development and financing social services.

2. Materials and Methods

The data required for this study were obtained from the statistical databases of the Ministry of Finance of the Republic of Uzbekistan, the Ministry of Economy and Finance, the State Tax Committee, and the Central Bank of the Republic of Uzbekistan. Also, data on human development indicators of Uzbekistan were used from the annual reports of the United Nations Development Program (UNDP). The study covers the period 2005–2023.[11]

The research model is aimed at empirically assessing the impact of tax revenues on economic development and is estimated using the Vector Error Correction Model (VECM). The Augmented Dickey-Fuller (ADF) unit root test, the Autoregressive Distributed Lag (ARDL) threshold test, as well as the Jarque–Bera normal distribution test and the eigenvalue stability condition were used as initial diagnostic tests. The research model is presented in the following form:

$$\mathbf{ECDEV} = f(TAXREV_t, \mu) \quad (1.1)$$

$$\mathbf{HDI_t} = \alpha_0 + \beta_1 PTX_t + \beta_2 VAT_t + \beta_3 * PRFT_t + \varepsilon_t \quad (1.2)$$

$$\mathbf{\Delta HDI_t} = \delta + \tau_i PTX_{t-i} + \gamma_j VAT_{t-j} + \varphi_m PRFT_{t-m} + \lambda_1 ECT_{t-1} + U_t \quad (1.3)$$

Here, ECDEV represents economic development and is measured by the Human Development Index (HDI). TAXREV represents total tax revenue. In this study, tax revenue is proxied by three main indicators:

- **PTX** – income tax revenues;
- **VAT** – value added tax revenues;
- **PRFT** – aggregate revenue from other major taxes, such as excise duties, land tax, and property tax.[12]

ε_t — approximation error, α_0 — constant term, β_1–β_3 — are parameters that represent long-term dependence. K–1 denotes the lag length of the model. τ_i, γ_j, φ_m represents short-term dynamic coefficients. λ_1 — is the error correction coefficient, and its negative value indicates the speed at which the system returns to long-term equilibrium. ECT_{t-1} — is an error correction term, which indicates the degree of deviation from the long-run cointegrating relationship. U_t — random residual term. This methodology allows for empirical identification of the short- and long-term relationship between tax revenues and economic growth.

3. Results

This study statistically studies the dynamics of tax revenues, one of the main fiscal indicators determining the economic development of Uzbekistan, and their impact on economic development. The analysis used GDP growth rates, corporate income tax revenues, value added tax revenues, and excise tax revenues for 2005–2023. Descriptive statistical results show that Uzbekistan's tax base has grown significantly over the years, and the share of VAT in the structure of tax revenues remains the leading one. The table 1. below presents statistical indicators calculated for the main variables.[13]

Table 1. Descriptive statistics

Indicator	GDP growth (%)	Corporate income tax (trillion soums)	VAT revenues (trillion soums)	Excise revenue (trillion soums)
Average value	6.1	15.8	32.4	8.9
Maksimum	9.0	32.5	58.7	15.3
Minimum	1.5	4.1	9.8	2.7
Skewness	–0.42	0.31	0.27	0.18
Kurtosis	1.92	1.71	1.88	1.64

The results show that, while Uzbekistan's economic growth rates have varied over the years, tax revenue growth has been relatively stable. VAT revenue has the highest average value, reflecting the formalization of the economy and the expansion of the consumer base. Corporate income tax revenue has also shown a significant growth trend, indicating a strengthening of the financial stability of enterprises operating in the economy.

Skewness indicators indicate that the distribution of tax revenue is skewed to the right, meaning that higher values are more common than lower values over a period of years. The negative skewness of the GDP growth factor reflects that economic growth was lower in some years.

The kurtosis (peakiness) indicators are all below 2, indicating that the distribution is "flat" and there are no extreme fluctuations. This, in turn, indicates that tax revenues are relatively stable and predictable over time.[14]

In order to avoid spurious regression results in the econometric analysis, the stationarity of the variables participating in the model was checked. For this purpose, the widely used Augmented Dickey–Fuller (ADF) unit root test was used. The null hypothesis of this test is based on the assumption that the variable has a unit root, that is, is not stationary. The ADF test results are presented in Table 2, which show that the variables are integrated to varying degrees.

Table 2. ADF unit root test results

Variable	Test statistics at the level	p- value	Test statistic in the first difference	p- value	Integration level
HDI	-0.604	0.2796	-2.478	0.0176**	I(1)
CIT	-4.376	0.0024*	—	—	I(0)
PPT	-1.851	0.6798	-2.996	0.0075*	I(1)
VAT	-2.555	0.3012	-2.292	0.0238**	I(1)

As can be seen from the data in Table 2, only the corporate income tax (CIT) is stationary at the level, which has an integration level of I(0). The remaining variables, the human development index (HDI), the petroleum tax (PPT), and the value added tax (VAT), are stationary only after the first difference, that is, they are I(1) variables. These results indicate that the model contains a mixture of I(0) and I(1) variables. In this case, the use of traditional cointegration methods is not appropriate. Therefore, the ARDL bounds test proposed by Pesaran, Shin, and Smith (2001) was used to determine the presence of a long-run relationship between the variables.

Since the variables in the model have different integration levels, the Autoregressive Distributed Lag (ARDL) bounds test was used. This test allows us to identify long-run relationships in models consisting of I(0), I(1), or a combination of them. There are two critical values in the ARDL bounds test:

- **lower limit value** — all explanatory variables are assumed to be I(0);
- **upper limit value** — all explanatory variables are assumed to be I(1).

The null hypothesis for this test is expressed as follows:

H_0: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ (that is, there is no cointegration between the variables).

If the calculated F-statistic is greater than the upper critical value, the null hypothesis is rejected and the existence of a long-run relationship between the variables is confirmed. On the contrary, if the F-statistic is less than the lower critical value, the null hypothesis is accepted. The location of the F-statistic between the lower and upper limits leaves the conclusion about the presence of cointegration in an ambiguous state. The Schwarz information criterion (SIC) was used to determine the optimal lag length in the ARDL model. The results of the calculated limit test for the ARDL (2, 2, 2, 2) model constructed on the basis of this criterion are presented in Table 3.

Table 3. ARDL model results

Indicator	Level of importance	Critical value limits	
		Lower limit	Upper limit
8.611	10%	2.72	3.77
	5%	3.23	4.35
	2.5%	3.69	4.89
	1%	4.29	5.61

According to Table 3, the calculated F-statistic is 8.611. This value is significantly higher than the upper critical threshold values at all significance levels (10%, 5%, 2.5% and 1%). In particular, even at the 1% significance level, with an upper threshold value of 5.61, the F-statistic of 8.611 provides a strong basis for rejecting the null hypothesis. These results confirm the existence of a long-run cointegrating relationship between the Human Development Index (HDI) and tax revenue-related indicators - corporate income tax (CIT), value-added tax (VAT) and other indirect taxes (PPT). This means that these variables move in the same direction in the long run, coordinating with

each other.

As a result, the model built on the results of the ARDL bounds test can be concluded that, despite short-term fluctuations, a stable economic relationship has been formed between tax revenues and human development. This scientifically substantiates the long-term impact of state budget revenues, in particular tax revenues, on economic and social development.[15]

4. Conclusion

This study is devoted to the empirical and theoretical analysis of the impact of tax revenues on economic development in the Republic of Uzbekistan. Within the framework of the study, the relationship between the human development index and basic tax revenues was studied using econometric methods. The results obtained confirmed that the tax system is an important mechanism that ensures not only fiscal, but also socio-economic development. The results of the Augmented Dickey–Fuller test showed that the variables used in the study have different levels of integration. In particular, while the corporate income tax rate was stationary at the level, other variables became stationary after the first difference. This situation necessitated the use of the ARDL bounds test. The results of the bounds test conducted based on the Pesaran, Shin, and Smith methodology clearly confirmed the existence of a long-term cointegrating relationship between the variables.

According to the results of empirical analysis, a stable long-term relationship has been formed between tax revenues and human development. This indicates that tax policy has the potential not only to increase state budget revenues, but also to ensure the well-being of the population, social infrastructure and economic stability. In particular, it was found that the role of indirect taxes and corporate income tax in economic development is important, and their effective management is of strategic importance. The results of the study show that changes in the structure of tax revenues directly affect economic development. Therefore, in the future, in the process of improving tax policy, in addition to ensuring fiscal stability, special attention should be paid to strengthening the incentive and socially oriented functions of tax mechanisms. In particular, it is advisable to implement tax incentives and preferences in harmony with increasing production volumes, strengthening competitiveness and developing human capital.

Overall, the results of this study scientifically substantiate the important and long-term role of tax revenues in the economic development of Uzbekistan and create a solid scientific foundation for developing practical conclusions on improving tax policy.

REFERENCES

[1] B. F. Satope and B. Akanbi, "Effect of business on economic development in Nigeria," *E3 Journal of Business Management and Economics*, vol. 5, no. 4, pp. 91–96, 2014.

[2] M. Mick, "How does taxation affect the quality of governance?" *Tax Notes International*, vol. 2, pp. 79–98, 2007.

[3] D. Belshaw and I. Livingstone, *Renewing Development in Sub-Saharan Africa: Policy, Performance and Prospects*. London: Routledge, 2002.

[4] D. Stoilova and N. Patonov, "An empirical evidence for the impact of taxation on economy growth in the European Union," in *Tourism and Management Studies International Conference Proceedings*, vol. 3, pp. 1031–1039, 2012.

[5] T. Besley and T. Persson, "Taxation and development," in *Handbook of Public Economics*, vol. 5, pp. 51–109, 2013.

[6] E. E. Chigbu and C. O. Njoku, "Taxation and the Nigerian economy (1994–2012)," *Management Studies and Economic Systems*, vol. 2, no. 2, pp. 111–128, 2015.

[7] J. B. Harelimana, "The role of taxation on resilient economy and development of Rwanda," *Journal of Finance Marketing*, vol. 2, no. 1, pp. 28–39, 2018.

[8] M. S. Tosun and S. Abizadeh, "Economic growth and tax components: An analysis of tax

changes in OECD," *Journal of Applied Economics*, vol. 37, pp. 2251–2263, 2005.
[9] Sh. Ruziyev and S. Togayev, "Soliqqa tortishning mohiyati va uni iqtisodiyotdagi ahamiyati," *Yashil iqtisodiyot va taraqqiyot*, vol. 2, no. 4, 2024.
[10] G. R. Murodovich, "Tax revenues and economic growth dynamics in Uzbekistan," *American Journal of Multidisciplinary Bulletin*, vol. 3, no. 4, pp. 151–162, 2025.
[11] Sh. Ruziyev and L. Toshnazarova, "Optimal soliqqa tortish bo'yicha tadqiqotlarning bibliometrik va ekonometrik tahlilining ahamiyati," *Innovations in Science and Technologies*, no. 2, pp. 240–249, 2025.
[12] R. Musgrave, *Public Finance in Theory and Practice*. New York: McGraw-Hill, 1989.
[13] J. E. Stiglitz, *Economics of the Public Sector*. New York: W. W. Norton & Company, 2000.
[14] A. B. Atkinson and J. E. Stiglitz, *Lectures on Public Economics*. Princeton: Princeton University Press, 1980.
[15] OECD, *Tax Policy Reforms in OECD Countries*. Paris: OECD Publishing, 2022.