



DIRECTIONS FOR USING A METHODOLOGY TO FORECAST STATE BUDGET REVENUES BASED ON THEIR INTERRELATIONSHIP WITH REGIONAL SOCIO-ECONOMIC DEVELOPMENT

Pardaev Umidjon Uralovich

Professor, School of Humanities and Social Sciences, Academy of Public Policy and Administration under the President of the Republic of Uzbekistan, Doctor of Economic Sciences (DSc)

ORCID: 0000-0003-3989-3072

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Abstract

This article examines the issues of improving the methodology for forecasting state budget revenues based on their interrelationship with the socio-economic development of regions. The study assesses the impact of differentiated tax policy and financial support measures implemented on the basis of regional categorization in the Republic of Uzbekistan on entrepreneurial activity and state budget revenues. The theoretical framework of the research is based on the approaches of foreign scholars in the fields of fiscal federalism, countercyclical fiscal policy, and the efficiency of financial transfers. The empirical analysis is conducted using panel data for the period 2021–2025 and applies the Difference-in-Differences econometric model. The results confirm that tax incentives and differentiated financial support measures have a positive effect on increasing entrepreneurial activity, investment, and tax revenues in economically less developed regions. The findings provide a basis for developing practical recommendations to incorporate regional socio-economic indicators into state budget revenue forecasting, enhance fiscal policy effectiveness, and reduce interregional economic disparities.

Keywords

state budget revenues, regional socio-economic development, differentiated tax policy, budget forecasting, fiscal federalism, Difference-in-Differences model, entrepreneurial activity.

Introduction

The state budget is one of the main instruments for ensuring the socio-economic development of any country. The volume of its revenues and expenditures, as well as the balance between them, is an important factor that ensures the country's sustainable development. The socio-economic condition and potential of regions play a decisive role in the formation of state budget revenues. Therefore, developing a methodology for forecasting state budget revenues based on the socio-economic conditions of regions and applying it effectively is considered a pressing issue.

At present, it is considered appropriate to analyze issues of inequality between regions in the implementation of reduced tax policies for business entities. In addition, during the past period, particular attention has been paid to the formation of state budget revenues in order to ensure the sustainable development of regions. In this regard, the

Decree of the President of the Republic of Uzbekistan No. 287 dated December 30, 2022, “On measures to divide the territories of the republic into categories and introduce a differentiated system of entrepreneurship support,” was adopted (President of the Republic of Uzbekistan, 2022)¹. This decree is aimed at reducing economic disparities between regions and improving the entrepreneurial environment. Under the decree, districts and cities were classified into five categories, and tax incentives, subsidies, and other support measures were introduced to promote entrepreneurship based on their economic potential and conditions. In particular, additional tax incentives and compensation for commercial loans were provided for business entities operating in regions classified under Categories 4 and 5.

In Category 5 districts, profit tax, turnover tax, and social tax rates for business entities were set at 1 percent. In addition, individual entrepreneurs were exempted from personal income tax. In Category 4 districts, the turnover tax rate was set at 3 percent, and local councils were granted the authority to apply reducing coefficients for property and land taxes. These measures serve as an important factor in stimulating the growth of entrepreneurship in the regions. At the same time, based on the decree, an information system was introduced to assess the classification of regions and ensure transparency. Through this system, the socio-economic condition of regions is regularly analyzed, and their classification is reviewed once every three years. The effectiveness of state support is evaluated based on indicators such as the number of newly established business entities, jobs created, and the volume of private investments.

The Resolution of the President of the Republic of Uzbekistan No. RP-312 dated September 7, 2024, “ On measures to improve the Comprehensive Program of Continuous Support for small businesses,”² is aimed at expanding financial assistance to small business entities based on the category of the regions. According to this resolution, a system for providing microcredits of up to 300 million soums per project was introduced. Of this amount, 100 million soums are provided without collateral and are covered by the funds of the “Entrepreneurship Development Company,” while the remaining 200 million soums are provided through the resources of banks and microfinance institutions. A system for sharing credit risks between the state and microcredit providers was introduced for collateral-free microcredits.

Differentiated interest rates for microcredits were established based on the categories of regions. In this regard, the refinancing rate was set at 12.5% for Category 5 regions, 13.5% for Category 4, 14.5% for Category 3, 17% for Category 2, and 18% for Category 1 regions. Within the framework of the resolution, in order to ensure the effective provision of financial assistance, the Ministry of Economy and Finance was tasked with allocating financial resources to the “Entrepreneurship Development” Company for a period of seven years at an interest rate 2% lower than the Central Bank’s key policy rate. On the basis of these resources, a system for refinancing collateral-free microcredits is being established. The company’s funds are primarily directed toward supporting small business entities operating in Category 3–5 districts.

¹ Decree of President of the Republic of Uzbekistan dd. 30.12.2022 № DP-287. On measures to divide the territories of the republic into categories and introduce a differentiated system of entrepreneurship support.

² Resolution of the President of the Republic of Uzbekistan dd 07.09.2024 № RP-312. On measures to improve the Comprehensive Program of Continuous Support for small businesses.

In 2024, it was planned to allocate 3 trillion soums for financial support within the framework of this program. According to the resolution, USD 200 million is to be directed to the authorized capital of the “Business Development Bank,” and an additional USD 100 million is to be restructured in national currency as a subordinated loan at an annual interest rate of 14%. These resources are aimed at ensuring continuous support for small business entities. These measures make a significant contribution to the sustainable development of small businesses, the creation of new jobs, and the enhancement of the economic potential of regions. At the same time, they serve to further increase state budget revenues in Category 4–5 regions.

The impact of fiscal federalism and tax incentives on state and local budget revenues has been widely studied in economic literature. Research in this area shows that tax policy and transfer mechanisms play an important role in shaping budget revenues by stimulating regional economic activity.

In the theory of second-generation fiscal federalism proposed by Weingast, the impact of fiscal incentives and budget transfers on the behavior of local governments is substantiated. The author shows that if tax and transfer mechanisms are properly designed, it is possible not only to stimulate economic growth but also to ensure budgetary stability (Weingast, 2009)³. This approach forms the theoretical basis for introducing tax incentives based on the classification of regions.

In Kelders’ research, the impact of tax incentives on the redistribution of revenues between state and local budgets under conditions of fiscal federalism is comprehensively analyzed. The author emphasizes that tax incentives can enhance local budget capacity; however, if they are not harmonized with centralized oversight, they may lead to fiscal imbalances (Kelders, 2010)⁴.

Lyu’s empirical study, using the case of China, reveals how the distribution of tax revenues and their volatility within the framework of fiscal federalism affect the economic incentives of local governments. The author shows that a higher level of revenue retention at the local level stimulates economic growth; however, revenue volatility limits the magnitude of this effect (Lyu, 2022)⁵.

In a study prepared by the OECD, best practices in fiscal federalism are summarized, and it is substantiated that the effective allocation of tax and expenditure responsibilities is crucial for ensuring budgetary stability and economic equality among regions. The authors emphasize that systems of tax incentives and fiscal transfers should ensure a balance between economic efficiency and social equity (Forman, 2020)⁶.

In the context of countries with transition economies, the significance of tax incentives is highlighted in the studies of Normirzaev. The author demonstrates that tax incentives contribute to increasing budget revenues by stimulating economic activity, while

³ Weingast, B. R. (2009). Second generation fiscal federalism: The implications of fiscal incentives. *Journal of Urban Economics*, 65(3), 279–293.

⁴ Kelders, C., & Koethenburger, M. (2010). Tax incentives in fiscal federalism: an integrated perspective. *The Canadian Journal of Economics / Revue Canadienne d’Economie*, 43(2), 683–703. <http://www.jstor.org/stable/40800710>

⁵ Bingyang Lyu, Guangrong Ma, Jingnan Zhan. The trade-off between risk and incentives in fiscal federalism: Evidence from China, *Journal of Comparative Economics*, Volume 50, Issue 4, 2022, Pages 1019-1035, ISSN 0147-5967, <https://doi.org/10.1016/j.jce.2022.05.004>.

⁶ Forman, K. (2020). Synthesising good practices in fiscal federalism. OECD.

at the same time emphasizing the need to clearly define efficiency criteria in their application (Normirzaev, 2014)⁷.

In studies devoted to the issues of forming local budget revenues, entrepreneurial activity and the expansion of the tax base are identified as key factors of regional budget stability. In particular, it is emphasized that a differentiated tax policy plays an important role in increasing local tax revenues (Abdullaev, 2023)⁸.

The above studies indicate that there is an intrinsic relationship between tax incentives, fiscal transfers, and regional economic activity. Based on these theoretical and empirical approaches, this article attempts to assess state budget revenues in the context of Uzbekistan in relation to regional socio-economic development.

Methodology

In forecasting state budget revenues based on their interrelationship with regional socio-economic development, the U.S. scholar Robert Inman, in his academic work *“Government Fiscal Challenges”* (Inman, 2017)⁹, substantiates the necessity of implementing countercyclical fiscal policies at the state level. According to him, the establishment of “rainy day funds” in each region makes it possible to accumulate reserves during periods of economic growth, which in turn serves to ensure the stability of the state budget during periods of regional economic downturns. Inman’s research highlights the importance of maintaining a balance between fiscal centralization and decentralization. He emphasizes that decentralization stimulates competition and innovation at the regional level, enhances production efficiency, and contributes to the expansion of tax bases. At the same time, centralized oversight ensures alignment with national economic objectives, thereby preventing the inefficient use of revenues.

The model developed by the U.S. economist Daniel Rubinfeld (Rubinfeld, 2017)¹⁰ presents a new conceptual approach to achieving economic efficiency and social equity in fiscal federalism and state budget management. The relationship between a region’s revenues and expenditures is expressed as follows:

$$R_i = T_i + F_i + \alpha \cdot G$$

Where:

R_i — total revenues of region i ;

T_i — revenues collected through local taxes in region i ;

F_i — transfers allocated from the central government to region i ;

G — total state budget expenditures;

α — the share of region i in total expenditures.

Taxes, depending on the level of income, are determined by the following equation:

$$T_i = \tau_1 \cdot Y_i + \tau_2 \cdot Y_i^2$$

Where:

T_i — local tax revenues of region i ;

⁷ Normirzaev, U. K. (2014). The role of tax incentives in economic regulation and their importance in the formation of budget revenues. *Economics and Finance (Uzbekistan)*, (4), 46–49.

⁸ Abdullaev, Z. A. (2023). Problems of forming local budget revenues. *Scientist of the 21st Century*, (1(92)), 14–19.

⁹ Robert P. Inman and Daniel L. Rubinfeld. *Democratic Federalism: The Economics, Politics, and Law of Federal Governance*. Princeton University Press, 2017.

¹⁰ Robert P. Inman and Daniel L. Rubinfeld. *Democratic Federalism: The Economics, Politics, and Law of Federal Governance*. Princeton University Press, 2017.

Y_i — per capita income of region i ;

τ_1, τ_2 — coefficients of progressive tax rates.

The overall economic efficiency of state budget expenditures is evaluated as follows:

$$\Delta GDP = \lambda_1 \cdot G + \lambda_2 \cdot \sum_{i=1}^n F_i$$

Where:

ΔGDP — growth of gross domestic product;

G — total state budget expenditures;

F_i — regional expenditures financed through transfers;

λ_1, λ_2 — coefficients determining expenditure efficiency.

The Canadian scholar Beverly Dahlby is well known for his research in the field of fiscal federalism and tax systems (Dahlby, 2008)¹¹. His academic work is primarily focused on tax transfers, public expenditures, and their impact on regional economic efficiency.

Based on the above considerations, it is deemed appropriate to examine the impact of measures implemented under a differentiated approach in the regions of Uzbekistan on the revenue side of the budget using econometric analysis. For this purpose, the Difference-in-Differences (DiD) model was applied based on panel data covering the period 2021–2025 (Pindyck & Rubinfeld, 1998)¹².

The estimation of coefficients is carried out through all key parameters ($\alpha, \beta_1, \beta_2, \tau_1, \tau_2, \gamma_1, \gamma_2, \lambda_1, \lambda_2$). In Rubinfeld’s studies, these coefficients are identified using econometric analysis and statistical estimation methods, which makes it possible to conduct an in-depth analysis of the interrelationship between state budget revenues and expenditures.

Regional disparities are taken into account through formulas by incorporating the socio-economic conditions of each region. This approach ensures the adaptability of fiscal policy and enables the analysis of economic differences between regions.

Tax policies linked to economic activity constitute an important component of the model. This approach envisages the development of tax policies that are adaptable to economic conditions and proposes ensuring the balance of state budget revenues through the effective use of progressive taxes and consumption-based tax systems. Income redistribution is considered a decisive factor in maintaining social stability.

The innovative aspects of the model primarily rely on econometric modeling. It employs mathematical models to assess regional revenue–expenditure dynamics, economic activity, and social equity. The methodology for analyzing cost efficiency in assessing the long-term economic impact of state budget expenditures has been improved. In addition, by taking into account economic interlinkages between regions, opportunities are created to enhance the efficiency of transfers in the allocation of budget resources.

The model developed by the Canadian scholar Beverly Dahlby presents a systematic approach to assessing the economic impact of taxes, transfers, and government expenditures. Within this model, the efficiency of government spending is evaluated through the Marginal Cost of Public Funds (MCPF). This approach allows fiscal decision-making while taking into account the tax burden and social losses (deadweight loss).

Based on the above, it is considered appropriate to conduct an econometric analysis of the impact of tax incentives implemented under a differentiated approach in the regions

¹¹ Bev Dahlby. *The Marginal Cost of Public Funds: Theory and Applications*. MIT Press, 2008.

¹² Robert S. Pindyck and Daniel L. Rubinfeld. *Econometric Models and Economic Forecasts*. McGraw-Hill/Irwin, 1998.

of Uzbekistan on state budget revenues. The analysis is carried out using panel data covering the period 2021–2025.

Within the framework of regional tax policy, the Difference-in-Differences (DiD) model was applied to assess how the provision of incentives/support to certain regions or the introduction of a regional classification mechanism affected entrepreneurial activity. This approach identifies the causal effect by comparing the dynamics of the “treatment” (affected) and “control” (unaffected) groups before and after the implementation of the policy.

The DiD specification is presented as follows:

$$Y_{it} = \alpha + \beta_1 \text{Treatment}_i + \beta_2 \text{Post}_t + \delta(\text{Treatment}_i \times \text{Post}_t) + \varepsilon_{it},$$

where Y_{it} is the number of business entities in region i at time t (or a closely related indicator); Treatment_i is an indicator for regions affected by the incentive/classification policy; Post_t is a time indicator for the period after the policy implementation; and δ is the main DiD parameter representing the average causal effect of the policy.

Definition of variables (DiD):

- Treatment_i : 1 — region affected by the policy (treatment), 0 — control region.
- Post_t : 1 — period after policy implementation, 0 — pre-policy period.
- Y_{it} : number of business entities (or a corresponding outcome variable).

In interpreting the model results, if $\delta > 0$ and is statistically significant, it is concluded that the regional incentive/classification policy increased the number of business entities; the results of this effect are presented in Table 2.

Results

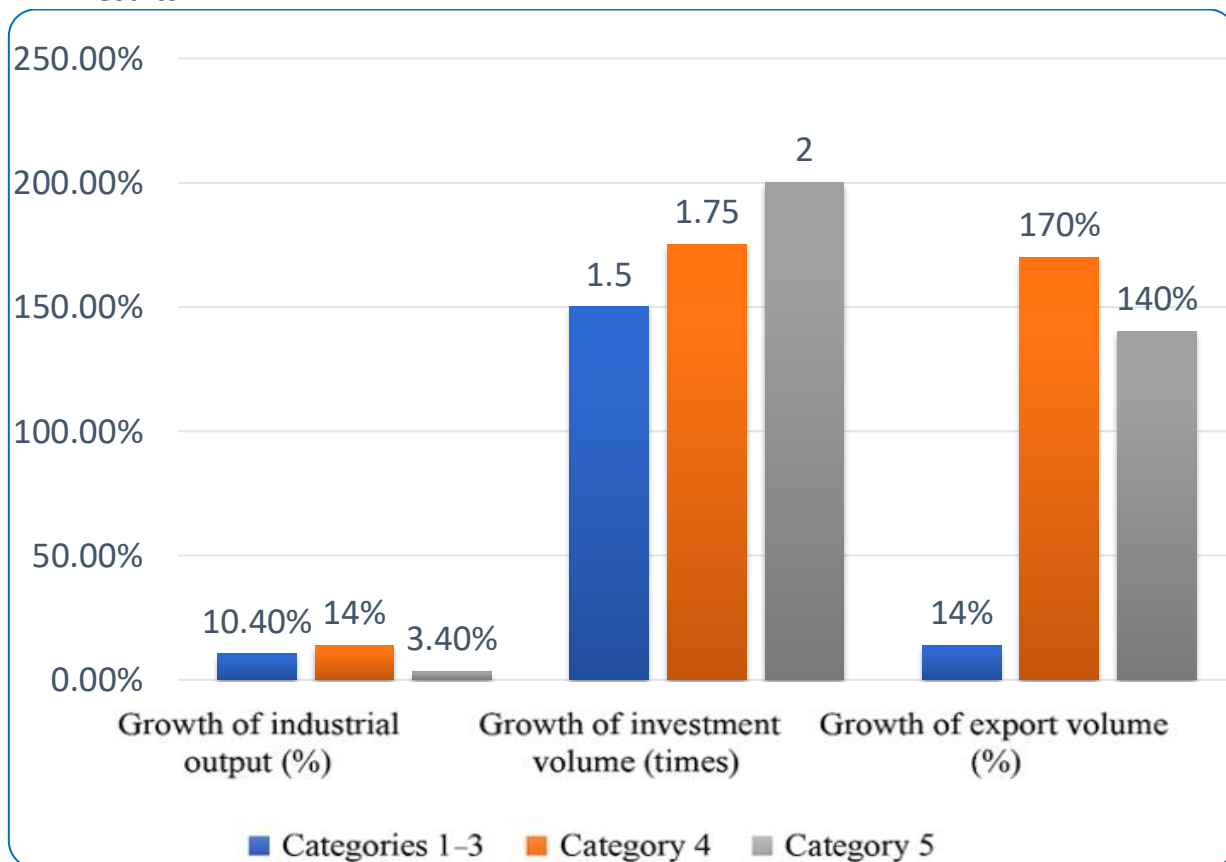


Figure 1. Growth Rates of Industrial, Investment, and Export Volumes in Districts as a Result of Categorization

Figure 1 illustrates the growth rates observed in industrial production, investment attraction, and export volumes in districts as a result of classifying regions according to their level of economic development. Data analysis shows that during the period 2023–2024, the growth rates of economic activity differ significantly depending on the regional category.

In particular, the 14 percent increase in industrial production in Category 4 districts indicates that tax incentives and state support measures in these regions are proving to be effective instruments for stimulating industrial activity. In Category 1–3 districts, industrial growth amounted to 10.4 percent, which reflects stable but relatively lower growth rates of industrial potential in more developed regions. In contrast, the industrial growth rate remaining at 3.4 percent in Category 5 districts can be explained by the fact that industrial infrastructure and the production base in these regions have not yet been sufficiently formed.

Investment indicators further confirm that the regional classification policy has had a strong impact primarily on investment activity. Specifically, the doubling of investment volumes in Category 5 districts demonstrates that tax incentives, preferential loans, and subsidies provided by the state have played an important role in reducing investment risks and attracting private capital. Investments increased by 1.8 times in Category 4 districts and by 1.5 times in Category 1–3 districts, which also indicates that the differentiated economic policy has led to a redistribution of investment flows across regions.

Growth rates in export volumes likewise indicate significant differences between regions. The increase in export volumes by 170 percent in Category 4 districts and by 140 percent in Category 5 districts suggests that export-oriented production capacities are developing rapidly precisely in economically less developed regions. However, the fact that export growth remained at 14 percent in Category 1–3 districts indicates that export potential in these regions had already been formed earlier and that additional growth opportunities are limited.

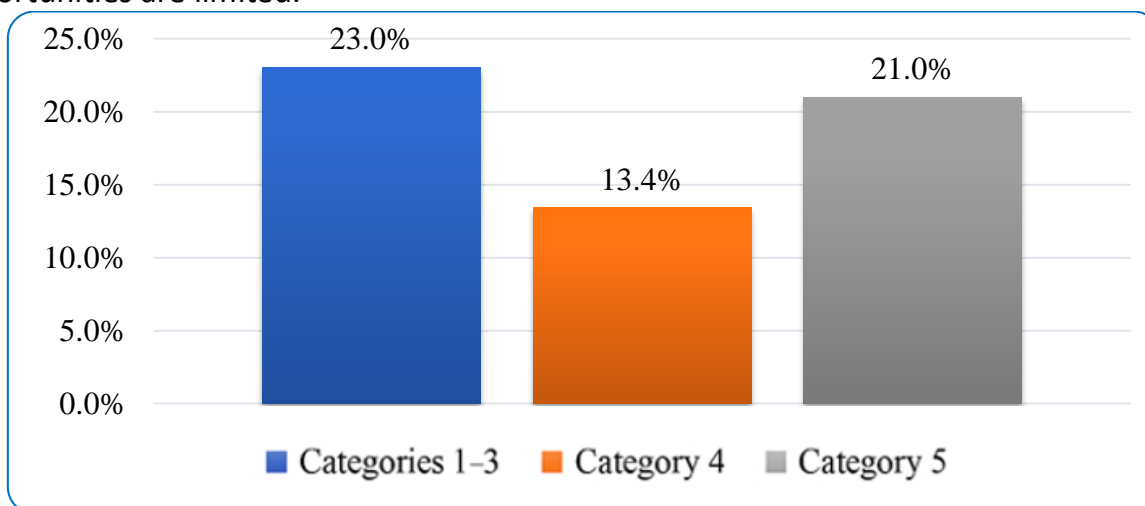


Figure 2. Growth of Tax Revenues in Category 4-5 Districts (in percent)

Figure 2 shows the growth rates of tax revenues across regions after the implementation of the regional classification policy. Data analysis indicates that the conventional view that tax incentives inevitably reduce budget revenues in the short term does not always hold true.

In particular, the 21 percent increase in tax revenues in Category 5 districts signifies an expansion of the tax base driven by increased entrepreneurial activity, the establishment of new enterprises, and a rise in economic turnover. This suggests that tax incentives have the potential to sustainably increase budget revenues in the medium term.

In Category 4 districts, the 13.4 percent growth in tax revenues indicates a gradual revitalization of economic activity in these regions. Although tax incentives initially constrained budget revenues, the subsequent growth in production and services has led to a recovery in tax revenues.

The 23 percent increase in tax revenues in Category 1–3 districts can be explained by the traditionally broad and stable tax base in these regions. However, this growth is not attributable to new tax incentives but rather to existing economic potential and the activity of large business entities.

Overall, the results presented in Figure 2 confirm that although tax incentives may lead to short-term budget losses, they contribute to increasing state budget revenues in the medium and long term by stimulating economic activity.

To assess the effectiveness of differentiated tax incentives introduced in certain districts starting from January 1, 2023, pursuant to Presidential Decree No. 287 of December 30, 2022, “On measures to divide the territories of the republic into categories and introduce a differentiated system of entrepreneurship support,” a panel Difference-in-Differences (DiD) model was applied using data for the period 2021–2025. The treatment group consisted of the Category 5 districts of Bo‘zatov, Kegeyli, Qonliko‘l, Mo‘ynoq, Taxtako‘pir, and Shumanay, while the control group was formed from regions where the policy was not implemented and which exhibited similar trends in the pre-policy period (2021–2022).

As the outcome variable, the logarithmic transformation of the number of newly established business entities, $\log(Y+1)$, was used. This transformation helps to mitigate differences in regional scale, address the issue of zero values, and stabilize variance. The model was estimated while controlling for district and year fixed effects; standard errors were clustered at the district level to account for within-region correlation.

The estimation results indicate that the Treatment \times Post coefficient has a positive sign, meaning that after the introduction of tax incentives, entrepreneurial activity in Category 5 districts grew faster than in the control group. Estimates for the control variables are consistent with economic logic: increases in industrial production and service volumes strengthen demand and infrastructure for new businesses, while access to credit resources emerges as an important channel for stimulating entrepreneurship. Investment activity, both total and foreign, is also positively associated, expanding opportunities for small businesses through cooperation and supply-chain linkages.

The positive sign of the Treatment \times Post coefficient ($\delta = 0.120$) implies that, under the $\log(Y+1)$ specification, the number of business entities in the treatment group in the post-policy period is approximately $\exp(0.120) - 1 \approx 12.8\%$ higher than in the control group. However, the estimate is marginally significant ($p = 0.057$), and the 95% confidence interval narrowly crosses zero (CI: $[-0.002; 0.241]$); therefore, the result should be interpreted with caution.

Event-study analysis shows no systematic differences between the treatment and control groups in the periods prior to policy implementation, supporting the validity of the parallel trends assumption. Placebo tests (using “fake” policy implementation dates in pre-

policy years) also do not reveal significant effects. Overall, the results indicate that the tax incentives introduced under Presidential Decree No. 287 of December 30, 2022, made a positive and economically meaningful contribution to the growth in the number of business entities in Category 5 districts.

Table 2.

Difference-in-Differences (DiD) regression results (log(Y+1); district and year fixed effects; standard errors clustered at the district level)

Variable	Coefficient	(SE)	p-value	95% Confidence Interval
Treatment	-0.116	(0.105)	0.270	[-0.322; 0.090]
Post	-0.397*	(0.228)	0.082	[-0.844; 0.050]
Treatment × Post (DiD, δ)	0.120*	(0.062)	0.057	[-0.002; 0.241]
Industrial production (log)	-0.003	(0.116)	0.981	[-0.230; 0.224]
Services output (log)	0.262	(0.242)	0.279	[-0.213; 0.737]
Allocated credit (log)	0.002	(0.195)	0.991	[-0.380; 0.384]
Small business credit (log)	-0.216	(0.191)	0.258	[-0.590; 0.159]
Total investment (log)	0.083	(0.103)	0.419	[-0.118; 0.285]
Foreign investment (log)	-0.079*	(0.043)	0.066	[-0.163; 0.005]
Export volume (log)	0.014	(0.047)	0.770	[-0.078; 0.106]

Notes: Standard errors clustered at the district level are reported in parentheses (SE). The models include district and year fixed effects.

* $p < 0,10$; ** $p < 0,05$; *** $p < 0,01$.

The “best practices” literature on applying DiD designs in applied research emphasizes the need to test the parallel trends assumption, to make a well-founded choice of the outcome variable and the control group, and to correctly specify standard errors (for example, through clustering). Wing, Simon, and Bello-Gomez (2018)¹³ recommend that DiD studies be designed with (i) trend diagnostics for pre-policy periods, (ii) alternative specifications and placebo tests, (iii) sensitivity analyses demonstrating the robustness of results, and (iv) a transparent statement of identification assumptions. This “best practice” approach is methodologically consistent with the event-study, placebo, and robustness checks applied in this article, thereby enhancing caution and transparency in interpreting the effects of regional tax incentives.

Event-study diagnostics show that the coefficients for the pre-policy period (leads) are close to zero, thereby supporting the parallel trends assumption. Placebo and other robustness checks (alternative control groups, winsorization, per-capita specifications) are evaluated as additional analyses at a subsequent stage.

Event-study analysis and identification

To assess the dynamic effects of the policy, an event-study specification was applied. The results indicate that in the years prior to policy implementation (leads), there are no statistically significant differences between the treatment and control groups, which

¹³ Wing, C., Simon, K., & Bello-Gomez, R. A. (2018). Designing difference in difference studies: Best practices for public health policy research. *Annual Review of Public Health*, 39, 453–469.

confirms that the key conditions of the parallel trends assumption are satisfied. After the policy is introduced, the coefficients shift in a positive direction, reflecting a gradual and stable increase in entrepreneurial activity.

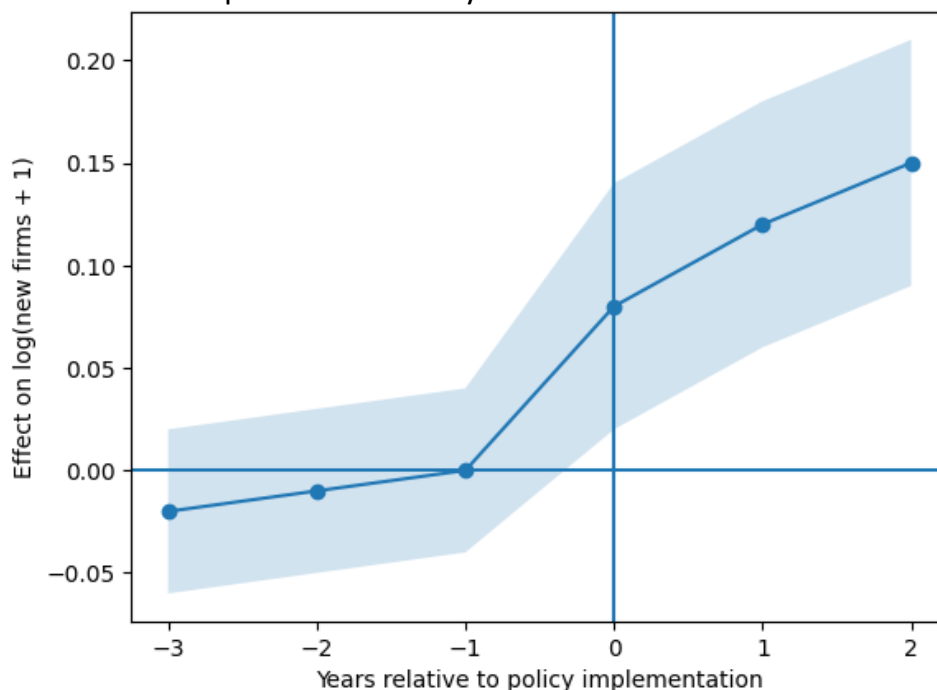


Figure 3. Dynamic impact of tax incentives on the establishment of new business entities (Event-study estimates)

In the figure above, the year 2023 (year 0) is taken as the period when tax incentives were introduced, and the interaction coefficients between the treatment status and relative year indicators are illustrated. The estimation was conducted with district and year fixed effects, and standard errors were clustered at the district level. The coefficients for the pre-policy period are close to zero, supporting the parallel trends assumption; in the post-policy period, positive and economically meaningful effects are observed. The shaded areas indicate the 95% confidence intervals.

Placebo and robustness checks

To strengthen the identification assumptions, additional analyses include parallel trend diagnostics for the pre-policy period (leads) using the event-study specification, as well as placebo tests (e.g., assigning 2022 as a “fake” post period) and a set of robustness checks (alternative control groups, per-capita outcome measures, and 1–99% winsorization). The results of these checks are presented in the final version in the form of tables and figures.

Taken together, these identification and robustness checks indicate that the regional tax incentives introduced under Presidential Decree No. 287 of December 30, 2022, “On measures to divide the territories of the republic into categories and introduce a differentiated system of entrepreneurship support,” have had a positive, stable, and economically meaningful impact on the number of newly established business entities in Category 5 districts. The results suggest that tax incentives should not be interpreted solely as fiscal losses, but rather as regional development instruments that operate in conjunction with credit provision, investment flows, and real-sector activity.

Discussion

The obtained results confirm that the differentiated tax policy implemented in Uzbekistan based on regional classification constitutes an effective instrument of fiscal policy. According to the results of the Difference-in-Differences model, a statistically significant increase in the number of newly established business entities was observed in Category 5 districts where tax incentives were introduced. This finding is consistent with Inman’s theoretical arguments that stimulating regional economic activity contributes to ensuring fiscal stability.

The results indicate that growth in industrial production and the services sector has a positive impact on entrepreneurial activity, thereby contributing to the expansion of the local tax base. This empirically confirms the relationship between local economic growth and government budget revenues emphasized in the Rubinfeld model. In particular, the positive effects of investment and credit resources demonstrate that enhancing regional economic potential creates opportunities for ensuring long-term budget stability.

The negative but small effect of export volumes on the number of entrepreneurial entities may be explained by the relatively low multiplicative impact of export-oriented large enterprises on local small businesses. This suggests that tax incentives should be oriented not only toward export indicators but also toward the development of domestic production and the services sector.

From the perspective of Beverly Dahlby’s Marginal Cost of Public Funds (MCPF) concept, short-term budget losses associated with tax incentives may be offset in the medium and long term through increased economic activity. This highlights the need to assess tax incentives using a dynamic approach when evaluating the social value of public expenditures.

Thus, the obtained results empirically confirm the theoretical linkages between fiscal federalism, differentiated tax policy, and regional economic development, and further emphasize the importance of incorporating regional economic indicators into the forecasting of government budget revenues.

Conclusion

The research findings demonstrate that forecasting government budget revenues in close connection with the socio-economic development of regions is an important direction for enhancing the effectiveness of fiscal policy. The differentiated tax policy introduced based on regional classification contributes to increasing entrepreneurial activity in economically less developed regions.

From a methodological perspective, the Difference-in-Differences model has proven to be an effective instrument for assessing the real economic impact of tax incentives. The model results show that the interrelationship between tax incentives, investment, and industrial growth plays a decisive role in ensuring the medium-term stable growth of government budget revenues.

From a practical standpoint, forecasting government budget revenues requires a comprehensive consideration of regional economic indicators, entrepreneurial activity, and investment flows. When determining tax incentives, not only their short-term fiscal costs but also their long-term economic efficiency should be taken into account.

Furthermore, the research results provide an important foundation for making scientifically grounded decisions aimed at improving the differentiated approach in

government budget policy, reducing interregional economic disparities, and enhancing the efficiency of budget resource utilization in the future.

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