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ASSESSMENT OF THE EFFECTIVENESS OF TAX INCENTIVES IN THE PUBLIC REVENUE MANAGEMENT SYSTEM OF THE REPUBLIC OF KAZAKHSTAN

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The article provides a comprehensive analysis of the tax incentive system of the Republic of Kazakhstan for the period 2015–2024. Using data from the World Bank, IMF, and the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan, the fiscal and economic consequences of applying preferential regimes are studied. Six categories of tax expenditure instruments are systematized. Using the OLS methods, paired and multiple regression models of the dependence of budget tax revenues on the volume of tax expenditures are built. A very high inverse correlation (r−0.9659, p<0.001) was established; the regression model explains 93.3% of the variance in tax revenues (R^2 = 0.9330, F = 111.37). Coefficient b = −1.063 indicates that an increase in tax expenditures by 1 percentage point of GDP is associated with a decrease in tax revenues by 1.063 percentage points of GDP. The effectiveness of special economic zones is assessed. Systemic problems were identified: a lack of public reporting on tax expenditures as a percentage of GDP and mechanisms for their automatic revision. Recommendations were proposed to improve the transparency and efficiency of tax expenditures.

Keywords: tax incentives, tax expenditures, public revenue management, special economic zones, regression analysis, fiscal efficiency, Kazakhstan.

ОЦЕНКА ЭФФЕКТИВНОСТИ НАЛОГОВЫХ ЛЬГОТ В СИСТЕМЕ УПРАВЛЕНИЯ ГОСУДАРСТВЕННЫМИ ДОХОДАМИ РЕСПУБЛИКИ КАЗАХСТАН

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В статье проведён комплексный анализ системы налоговых льгот Республики Казахстан за период 2015–2024 годов. На основе данных Всемирного банка, МВФ и Комитета государственных доходов МФ РК исследованы фискальные и экономические последствия применения льготных режимов. Систематизированы шесть категорий инструментов налоговых расходов. Методами МНК построены парная и множественная регрессионные модели зависимости налоговых доходов бюджета от объёма налоговых расходов. Установлена весьма высокая обратная корреляция (r−0,9659, p <0,001); регрессионная модель объясняет 93,3% дисперсии налоговых доходов (R^2 = 0,9330, F = 111,37). Коэффициент b = −1,063 свидетельствует: увеличение налоговых расходов на 1 п.п. ВВП ассоциируется с сокращением налоговых доходов на 1,063 п.п. ВВП. Оценена результативность специальных экономических зон. Выявлены системные проблемы: отсутствие публичной отчётности о налоговых расходах в % ВВП и механизмов их автоматического пересмотра. Предложены рекомендации по повышению прозрачности и эффективности налоговых расходов.

Ключевые слова: налоговые льготы, налоговые расходы, управление государственными доходами, специальные экономические зоны, регрессионный анализ, фискальная эффективность, Казахстан.

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ МЕМЛЕКЕТТІК КІРІСТЕРДІ БАСҚАРУ ЖҮЙЕСІНДЕГІ САЛЫҚ ЖЕҢІЛДІКТЕРІНІҢ ТИІМДІЛІГІН БАҒАЛАУ

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Мақалада 2015–2024 жылдар аралығындағы Қазақстан Республикасының салықтық ынталандыру жүйесіне кешенді талдау жасалған. Дүниежүзілік банктің, ХВҚ-ның және Қазақстан Республикасы Қаржы министрлігінің Мемлекеттік кіріс комитетінің деректерін пайдалана отырып, жеңілдік режимдерін қолданудың фискалдық және экономикалық салдары зерттелген. Салық шығыстары құралдарының алты санаты жүйеленген. OLS әдістерін қолдана отырып, бюджетке түсетін салық түсімдерінің салық шығыстарының көлеміне тәуелділігінің жұптық және көптік регрессиялық модельдері құрылған. Өте жоғары кері корреляция (r−0.9659, p<0.001) белгіленді; регрессиялық модель салық түсімдеріндегі дисперсияның 93,3%-ын түсіндіреді (R^2 = 0.9330, F = 111.37). b = −1.063 коэффициенті салық шығыстарының ЖІӨ-ге шаққанда 1 пайыздық пунктке өсуі салық түсімдерінің ЖІӨ-ге шаққанда 1,063 пайыздық пунктке төмендеуімен байланысты екенін көрсетеді. Арнайы экономикалық аймақтардың тиімділігі бағаланады. Жүйелік мәселелер анықталды: салық шығындары туралы ЖІӨ-ге пайыздық үлесі және оларды автоматты түрде қайта қарау тетіктері туралы жария есеп берудің болмауы. Салық шығындарының ашықтығы мен тиімділігін арттыру бойынша ұсыныстар ұсынылды.

Түйін сөздер: салық жеңілдіктері, салық шығындары, мемлекеттік кірістерді басқару, арнайы экономикалық аймақтар, регрессиялық талдау, фискалдық тиімділік, Қазақстан.

Introduction. Tax incentives are the most important instrument of state regulation of the economy, which simultaneously affects the revenue base of the budget, the investment climate and the structural characteristics of the national economy. In theory, the system of benefits qualifies as «hidden budget expenditures (tax expenditures) - a concept developed by S. Surrey and enshrined in the documents of the OECD and the IMF [1]. In other words, each benefit is regarded as the functional equivalent of government expenditures from the budget, but they are delivered without going through the normal process of parliamentary control and explaining the results obtained in this way. The very essence of such differences is that tax expenditures are «invisible» in regular budget papers.

The creation of the tax incentives system in Kazakhstan took place against the background of raw material orientation of the economy, problems of diversification of the industry and foreign investments attraction. The 2018 Tax Code of the Republic of Kazakhstan, with subsequent amendments, established an extensive list of preferential instruments - from special economic zones to reduced rates for certain sectors and special tax regimes for small and medium-sized businesses. The legal basis for the assessment of benefits was created by the Decree of the Government of the Republic of Kazakhstan No. 131 (2021), but the practice of its application revealed significant gaps: the results of the analysis are not published in a comparable international format, and there is no mechanism for automatic cancellation of ineffective benefits. A systematic empirical assessment of the fiscal consequences of preferential policies in Kazakh literature has not yet been carried out.

The problem is particularly relevant in the context of a persistent non-oil budget deficit and chronically low tax revenues relative to GDP. In its Article IV 2022-2025 reports, the IMF has repeatedly pointed out the need to disclose data on tax expenditures: it was only in 2023 that Kazakhstan first published a statement on fiscal risks, and the coverage of published data is still incomplete [2]. The IMF's 2025 report recommended eliminating the differentiation of CIT rates and focusing on expanding the non-oil tax base through an increase in the VAT rate [3]. Thus, reforming the tax relief system is among the priorities of both Kazakhstan's tax policy and the recommendations of international financial organizations.

The purpose of the research is to perform a detailed quantitative and institutional analysis of the effectiveness of tax incentives in the state revenue management system of the Republic of Kazakhstan for 2015-2024. To achieve this goal, the following tasks are set: (1) systematize the existing tax relief instruments by categories and norms of the Tax Code of the Republic of Kazakhstan; (2) analyze the dynamics of tax revenues in % of GDP against the background of the expansion of preferential regimes; (3) quantify the relationship between the volume of tax expenditures and tax revenues of the budget using correlation and regression analysis; (4) evaluate the effectiveness of FEZs as a key investment incentive tool; (5) identify institutional deficits and formulate practical recommendations. Scientific novelty of the research is that for the first time, an econometric analysis was used to assess the cumulative effect of tax expenditures on budget revenues of Kazakhstan during the period of 2015-2024.

The results of the correlation and regression analysis indicate a statistical relationship between the volume of tax incentives (tax expenditures) and tax revenues to the budget of the Republic of Kazakhstan. However, the

identified relationship does not allow for a definitive interpretation as a cause-and-effect relationship due to the limited time series, incomplete data, and the unresolved issue of measuring the actual volume and effect of tax incentives. Therefore, a promising direction for future research is to improve the methodology for assessing tax expenditures, expand the time and sectoral database, and apply causal analysis methods to more reliably identify the impact of individual types of tax incentives on budget revenues, investment, and economic activity.

Literature Review. Conceptual foundations for the analysis of tax expenditures were created by Surrey & McDaniel, who distinguished the «normative» tax system and deviations from it in the form of benefits. This classification helped to switch from the descriptive analysis of tax preferences to its analytical aspect, where any benefit was viewed as an alternative solution aimed at achieving the same results that can be achieved through direct budget expenditures. E. Toder claims that selection between tax expenditures and subsidies is not solely based on fiscal aspects, but also on political economics since benefits are less visible for taxpayers and less exposed to revision. Swift suggested practical ways of integrating tax expenditure analysis into budget process of developing countries noting that tax benefits are less visible for taxpayers and less exposed to revision [4]. At that, lack of such reporting may pose systematic risks for fiscal sustainability. At the level of international organizations, the OECD, in its publication Tax Expenditures in OECD Countries, systematized the practice of estimating tax expenditures in 33 member countries, stating that their total volume often reaches 5-10% of GDP and is comparable to spending on health or education [5]. In the Fiscal Transparency Code, the IMF included public disclosure of tax expenditures among the basic requirements for fiscal transparency that are mandatory for all member states. The IMF Study on Central Asia found that in the region, the use of tax incentives with weak monitoring and reporting mechanisms creates a serious problem. risks of budget instability and reallocation of resources in favor of large privileged market participants.

In the Kazakh literature, the classification characteristics of tax benefits in relation to the provisions of existing tax legislation were systematized by Abisheva K. and Ermekbayeva B.Zh., who pointed out the incentive and social functions of benefits and substantiated the necessity of their distinctiveness in evaluation of effectiveness [6]. However, the problem of empirical research using econometric methods of the effect of tax benefits' influence on budget income in dynamic development has been poorly considered in Kazakh literature. Almost all works devoted to the problem under discussion in the Russian scientific literature have a descriptive or legal nature, and the quantitative dependence of the scale of preferential policy from fiscal effects has not been investigated yet.

Materials and methods. The methodological basis of the study is the conceptof tax expenditures (expenditure tax expense analysis), developed by S. Serry and systematized in the guidelines of the OECD and the IMF. This concept considers each tax exemption, reduced rate or deduction as a deviation from the «reference» tax system, representing hidden government expenditures that can be quantified and compared with direct budget allocations. Within the framework of this concept, the following methods are used.

The foregone revenues approach contrasts the real revenues from the theoretical ones which would be received under the normal tax system without tax incentives. It is considered the main approach to identifying and estimating tax expenditures according to the International Monetary Fund and the Organisation for Economic Co-operation and Development. The disadvantage of this approach is that it does not consider the impact of behavioral changes of taxpayers due to the termination of benefits. However, it gives the upper bound of the fiscal loss.

Correlation and regression analysis (OLS) is used to quantify the statistical relationship between the volume of tax expenditures and tax revenues of the budget. The pair model (dependence of Y on X1) and multiple model (dependence of Y on X1 and X2) are evaluated by the least squares method. The significance of the coefficients is checked by Student's t-test, and the quality of the model as a whole is checked by Fisher's F - test. Critical significance level $\alpha = 0.05$. Period: 2015-2024 (n = 10 observations).

The institutional analysis includes systematization and evaluation of the regulatory framework: the Tax Code of the Republic of Kazakhstan (2018, as amended), Government Resolution No. 131 of 26.02.2021 «On Approval of the Rules for Analyzing the Effectiveness of tax Benefits», as well as the Law of the Republic of Kazakhstan «On Special Economic and Industrial Zones». The article analyzes the degree of compliance of the current system of benefits assessment with the OECD standards and the requirements of the IMF Budget Transparency Code.

Specification of variables. Dependent variable Y - state budget tax revenues (% of GDP); source: World Bank WDI [7] value for 2024 - preliminary

IMF WEO estimate. The independent variable X1-the amount of tax expenditures (benefits) in % of GDP - was constructed as a proxy estimate based on the Revenue Administration Gap Analysis Program (RA-GAP) methodology of the IMF. The variable is calculated as the difference between the regulatory tax burden (~15% of GDP, calibrated according to the structure of the non-oil economy of Kazakhstan) and actual tax revenues, adjusted for publicly available data of the SRC of the Ministry of Finance of the Republic of Kazakhstan on the loss of income from FEZs and special tax regimes. The use of the proxy variable is due to the fact that Kazakhstan does not publish official consolidated reports on tax expenditures in % of GDP - this fact in itself is a key institutional problem identified in the study. Control variable X2-real GDP growth (%) - included to account for the impact of the business cycle on the tax base; source: World Bank WDI, IMF WEO.

Results and Discussion. Kazakhstan's tax revenues declined from 13.1% of GDP (2015) to 10.9% (2020), recovering to 11.9% (2023) - steadily below the global average of 17.3% of GDP [8].

Table 1 - Key Fiscal Indicators of Kazakhstan, 2015-2023

Indicator	2015	2016	2017	2019	2020	2022	2023
Tax revenues, % of GDP	13.1	12.1	11.8	11.6	10.9	12.1	11.9
Real GDP growth, %	1,2	1,1	4,1	4,5	−2,5	3,2	5,1
Non-oil deficit, % GDP	−9,5	−9,8	−8,2	−7,1	−10,4	−7,8	−6,8
Budget expenditures, % of GDP	22.4	24.2	24.1	20.5	23.3	21.2	19.7
World average nal. income, % of GDP	-	-	-	-	-	-	17,3

Note. World Bank WDI (9); IMF WEO; IMF Article IV 2022, 2024 (2, 3). Non - oil deficit-IMF estimates.

Table 2 - Classification of the Main Tax Benefits in the Republic of Kazakhstan under the Tax Code Effective from 2018

Type of benefits	Instrument / norm of the Tax Code of the Republic of Kazakhstan	Target group	Type of tax
Exemption	100% exemption from CPN for FEZ participants	Residents of FEZ	CPN, VAT, property tax, land tax
Reduced rate	of CPN 10% for agricultural producers (Article 313 of the Tax Code of the Republic of Kazakhstan)	Agricultural producers	CPN
Investment credit	Benefits under investment contracts (Articles 712-714 of the Tax Code of the Republic of Kazakhstan)	Priority investment	projects CPN, property tax
Extended deduction	150% R & D deduction (Article 243 of the Tax Code of the Republic of Kazakhstan)	Innovative companies, SMEs	CPN
Social benefits	Exemption of pensions, TSA, scholarships (Article 341 of the Tax Code of the Republic of Kazakhstan)	Individuals	IPN
Special mode of small and medium	business Simplified declaration / patent: rate of 3%	of individual entrepreneurs and small and medium businesses, up to 24,038 MCI	IPN / CPN, social tax

Note. NC RK (11); Resolution No. 131/2021 (10); PwC Kazakhstan Tax Guide 2023 (12).

The decrease in the burden in 2015-2020 can be explained by the decline in the price of oil, an increase in preferential regimes according to SPIID program, and the increase in deficit from special SME regimes. The increase in burden in 2021-2023 was facilitated by the increase in the price of oil and the digitalization of taxation process conducted by the SRC of the Ministry of Finance of the Republic of Kazakhstan, but not by any reconsideration of the preferential policy – the non-oil deficit stayed in the range from −6.8% to −10.4% during all the period analyzed.

FEZ residents receive 100% exemption from CIT, zero VAT rate, and exemption from property and land taxes. Starting from 2024, benefits are differentiated by duration (7, 15, 25 years) from the volume of investments.

Table 3 - Dynamics of SEZ Development in the Republic of Kazakhstan, 2015-2025

Indicator	2015	2019	2021	2025 (Jan-Sept)
Number of active FEZs	9	10	13	16-17
Registered participants	n/a	~350	~480	1 144
Projects implemented	n/a	n / a	~380	558
Production volume, trln tenge	n/a	n/a	n / a	13.9
Attracted investments, trln tenge	n/a	n/a	n / a	>10
Jobs created	n/a	n/a	n / a	33 022

Note. Invest.gov.kz (13); Ministry of Industry of the Republic of Kazakhstan; The Astana Times (14); Times of Central Asia (15). n/a - the data was not published officially.

Results: 558 implemented projects, 33,022 jobs, production of 13.9 trillion tenge. The ratio of fiscal losses to benefits cannot be determined in the absence of official reporting.

Specification: Paired (1) and multiple (2) OLS models were evaluated.

$$Y = a + b \cdot X_1 + \varepsilon \quad (1)$$

$$Y = a + b_1 \cdot X_1 + b_2 \cdot X_2 + \varepsilon \quad (2)$$

Table 4 - Baseline data, 2015-2024

Year	Y, Nal income % of GDP	X1, Nal expenditure % of GDP*	X2, GDP Growth %	Y Ycalculation (steam room)	Remainder of
2015	13.1	3.2	1.2	12.935	+0.165
2016	12.1	3.8	1.1	12.298	−0.198
2017	11.8	4.1	4.1	11.979	−0.179
2018	11.6	4.3	4.1	11.766	−0.166
2019	11.6	4.4	4.5	11.660	−0.060
2020	10.9	5.1	−2.5	10.916	−0.016
2021	11.5	4.7	4.0	11.341	+0.159
2022	12.1	4.1	3.2	11.979	+0.121
2023	11.9	4.2	5.1	11.873	+0.027
2024	11.7	4.5	4.8	11.554	+0.146

*Note. * X1-IMF RA-GAP proxy estimate + SRC data. Y, X2 - World Bank WDI (9), IMF WEO.*

Correlation analysis:

Table 5 - Pearson correlation matrix

Variable	Y;	X1;	X2;
Y-Tax revenues, % of GDP	1,0000	−0,9659***	0,1100
X1 — Tax expenditures, % of GDP	−0,9659***	1,0000	−0,0965
X2 — Real GDP growth, %	0.1100	−0.0965	1.0000

*Note. *** $p < 0.001$. Author's calculation ($n = 10$).*

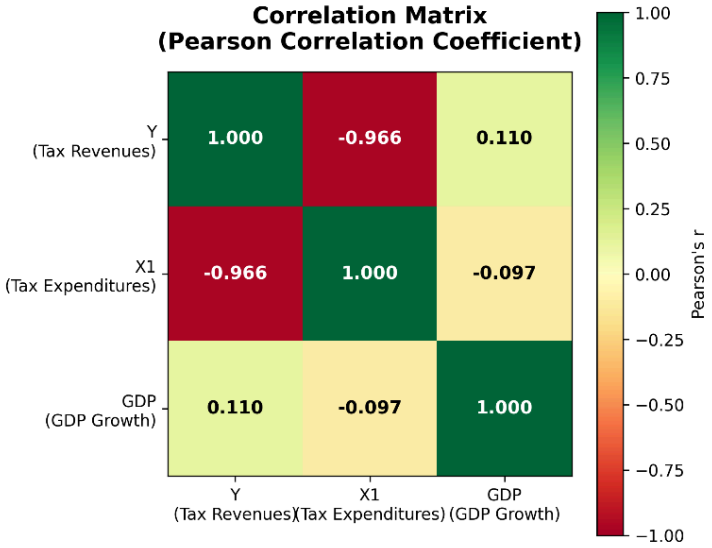


Fig. 1 - Heat map of the Pearson correlation matrix (compiled by the author)

r(X1, Y) = −0.9659 (p < 0.001) - very high feedback on the Chaddock scale. r(X2, Y) = 0.110 (p = 0.762) - insignificant. There is no multicollinearity (r(X1, X2) = −0.097).

Regression analysis. Equation of the paired model:

Y = 16,3354 − 1,0626·X1, R² = 0,9330 (3)

Table 6 - Results of evaluation of the paired regression model (OLS, n = 10)

Coefficient	Value	SE	t-stat.	p-value	Output
a (constant)	16.3354	0.4297	38.01	0.0000	p < 0.001 ***
b (X1)	−1,0626	0,1007	−10,55	0,0000	p < 0,0010,0000 p < 0.001 * * *
R2	0.9330				93.3% of variance
R2_adj	0.9246				
F-statistics	111.37			0.0000	Significant (α=0.05)
t crit. (df=8, α=0,05)	2,306				|t_b|=10,55 > 2,306

*Note. *** p < 0.001. Author's calculation.*

Constant a = 16.3354: for X1 = 0, tax revenues would be 16.33% of GDP. Coefficient b = −1.0626: an increase in tax expenditures by 1 percentage point of GDP reduces revenues by 1.063 percentage points of GDP-the effect of almost complete budget displacement. R2 = 0.9330 (93.3% of variance explained). F = 111,37 (p < 0,001); |t_b| = 10,55 > t = 2,306 (α = 0,05, df = 8).

Table 7 - Comparison of regression models

Model	R2	R2_adj	F-stat.	p(F)
Paired: Y = a + b·X1	0.9330	0.9246	111.37	0.0000
Multiple: Y = a + b1·X1 + b2·X2	0.9333	0.9142	48.95	0.0001

Note. Author's calculation. A pairwise model is adopted: R2_adj above, all coefficients are significant.

Multiple model: Y = 16.3158 − 1.0608· X1 + 0.0040· X2 (R2 = 0.9333). The coefficient X2 is insignificant (p = 0.868). Standardized betas: β1 = 0.964; β2 = 0.017. Results are stable.

The regression results show a statistical relationship between tax expenditures and tax revenues, but do not confirm causality. The negative coefficient X1 (b = −1.0626) indicates that higher tax expenditures were associated with lower tax revenues in 2015–2024. However, due to the limited number of observations and the estimated nature of the X1 data, this coefficient should be interpreted with caution and should not be considered as a direct effect of tax incentives on budget revenues.

The study has several limitations that must be considered when interpreting the results. First, the regression analysis is based on 10 annual observations for 2015–2024. This sample size limits the model's capabilities and prevents it from accounting for a large number of additional factors. Another limitation is the lack of a complete official data series on tax expenditures in Kazakhstan, so the X1 indicator is formed based on available estimates.

Furthermore, the regression analysis results demonstrate a statistical relationship between tax expenditures and tax revenues, but do not allow us to establish a direct causal relationship. Other factors, including oil prices, changes in tax legislation, the quality of tax administration, and the overall economic situation, may also influence tax revenue dynamics. In the future, as more comprehensive data accumulates, the study may be expanded to include a longer observation period, industry-specific data, and additional economic indicators. This will allow for a more accurate assessment of the impact of tax incentives on budget revenues.

The obtained results of correlation and regression analysis, as well as institutional research, demand an elaborated interpretation from the perspective of the theory of tax expenditures and international practice of revenue management.

The main finding of this research - the regression coefficient b = 1.063-shows that with each additional percentage point of GDP spent on tax expenditures «cost» to the budget an equal percentage of lost taxes. This result of an absolute value very close to unity in its economic sense indicates the absence of any multiplier: benefits do not create any increase in the tax base to compensate for the loss. Such a situation occurs in cases when the benefits are paid out without proper target identification and control. From the theoretical perspective, the logic of the OECD (2010) «tax expenditure as investment» supposes generation of growth of business activity and employment, and hence of the tax base enough to cover initial losses [9]. However, in the Kazakhstani case, such logic is not verified on the aggregate time series of 2015-2024, which corresponds to conclusions of the IMF regarding the need to revise concessionary policy [10].

Kazakhstan's tax revenues during the entire study period remained in the range of 10.9-13.1% of GDP, with the global average of 17.3% (2023). For comparison, in Georgia, which carried out consistent tax consolidation with simultaneous inventory of tax expenditures, tax revenues in 2023 reached about 24% of GDP; in Estonia-over 20% of GDP, with a minimum list of tax benefits and a transparent system for evaluating them. South Korea, which actively uses tax incentives for R & D and investment, annually publishes a detailed report on tax expenditures as a percentage of GDP, which allows the parliament to conduct systematic monitoring of their effectiveness. Kazakhstan has not yet reached this level of institutional maturity: the first statement on fiscal risks was published only in 2023, and it did not contain a complete register of tax expenditures [11].

Government Decree No. 131 (2021) created the legal basis for annual assessment of the effectiveness of benefits, but the practice of applying it revealed a number of systemic weaknesses. The analysis does not cover all existing benefits, but only those that the SRC identifies as «requiring evaluation». The results are not published in a form comparable to the OECD or IMF standards. There is no mechanism for automatic cancellation of ineffective benefits (sunset clause) in Kazakhstan legislation. The consequence is the accumulation of benefits that have lost their economic justification: according to experts, some of the existing instruments were introduced during a period of fundamentally different macroeconomic conditions and have not been revised since their introduction [12]. In its 2025 report, the IMF explicitly recommended that Kazakhstan refrain from further differentiating CIT rates in the new tax code precisely for this reason the accumulation of benefits complicates the system and reduces its predictability for investors.

The statistically insignificant impact of the GDP growth rate on tax revenues (r = 0.110, p = 0.762) reflects the structural nature of Kazakhstan's tax system: the dominance of oil revenues and large-scale transfers from the National Fund negate the relationship between the business cycle and tax revenues in % of GDP. This means that the problem of a low non-oil tax base is structural, not cyclical, and is not solved automatically as GDP grows. That is why the IMF consistently recommends that Kazakhstan not only reduce tax benefits, but also raise the VAT rate as the most neutral tool for expanding the non-oil base [13].

Data on FEZs show a significant increase in the number of participants (from ~350 in 2019 to 1,144 in 2025) and production indicators (13.9 trillion tenge). At the same time, the lack of consolidated public reporting on the amount of tax expenditures generated by FEZs does not allow calculating the coefficient «fiscal losses per unit of economic effect» (tax expenditure expense per job created / per tenge of output). International experience shows that this coefficient is a key criterion

for evaluating the effectiveness of FEZs: in countries where it is systematically calculated, governments are able to quickly adjust the parameters of benefits. The low share of foreign investment in the total amount of funds raised (about 1 trillion out of 10+ trillion tenge, i.e. about 10%) indicates that the preferential treatment of FEZs, despite its scale, has not yet become a sufficient incentive for non-residents, probably due to infrastructure constraints and institutional risks [14].

The development of the new Tax Code of the Republic of Kazakhstan, announced by the Government, represents a unique institutional opportunity for systemic reform of preferential policies. The IMF (2025) described the adoption of the new code as a «major chance for progress» in terms of tax simplification and expansion of the non-oil base [15]. International experience shows that the most sustainable tax spending reforms were implemented within the framework of comprehensive tax reforms, rather than through point-by-point amendments. Kazakhstan has the opportunity to integrate three fundamental elements into the new code: mandatory public reporting on tax expenditures as a percentage of GDP; automatic sunset clauses with parliamentary control; and performance evaluation criteria as a condition for extending benefits. The implementation of these elements would make it possible to move from the system of «benefits as a given» to the system of «benefits as a tool with a measurable result».

A small sample size (n = 10) reduces statistical power and limits the ability to include additional regressors. The X1 variable is a proxy estimate due to the lack of an official data series. The model does not take into account possible endogeneity: the expansion of benefits could be a reaction to the decline in income, and not its cause. Addressing these constraints requires the introduction of official reporting on tax expenditures, which in itself is a key recommendation of this paper. As data accumulates, the model can be expanded to include variables such as oil prices, the level of the shadow economy, and tax administration indicators.

Conclusion. This study allowed us to give a comprehensive quantitative and institutional assessment of the system of tax benefits in Kazakhstan for 2015-2024. The main conclusions and practical recommendations are presented below.

1. Kazakhstan has developed a multi-level system of six categories of tax benefits, covering CIT, IPN, VAT, property and land taxes. Despite the introduction in 2021 of a legal framework for assessing their effectiveness (Resolution No. 131), there is still no systematic public monitoring of tax expenditures in % of GDP in the format adopted in the OECD and IMF countries. This in itself is an institutional deficit that hinders informed tax policy decisions.

2. Tax revenues declined from 13.1% of GDP in 2015 to 10.9% in 2020, partially recovering to 11.9% in 2023. Throughout the study period, they remained consistently below the global average (17.3% of GDP in 2023). The non-oil budget deficit remained in the range of −6.8% to −10.4% of GDP, which indicates a deep structural vulnerability of the budget and makes the task of expanding the non-oil tax base a priority.

3. Correlation and regression analysis revealed a very high inverse relationship between the volume of tax expenditures and budget tax revenues ($r = -0.9659$, $p < 0.001$). The constructed regression equation $\hat{Y} = 16.3354\text{-}1.0626 \cdot X1$ explains 93.3% of the variance in tax revenues ($R2 = 0.9330$, $F = 111.37$, $p < 0.001$). The coefficient $b = -1.063$ indicates the effect of almost complete fiscal displacement: each additional percentage point of GDP allocated to tax expenditures (benefits) is associated with a reduction in tax revenues by 1.063 percentage points of GDP. There is no multiplicative expansion of the tax base that can compensate for direct fiscal losses at the level of aggregated data [16].

4. The impact of the GDP growth rate on tax revenues as a percentage of GDP was statistically insignificant ($r = 0.110$, $p = 0.762$), which confirms the structural rather than cyclical nature of the problem of a low non-oil tax base. This means that economic growth alone does not eliminate the gap between actual and potential tax revenues without targeted institutional reforms in the area of preferential policies.

5. FEZs provided 33,022 jobs, implementation of 558 projects and production volume of more than 13.9 trillion tenge. However, the fiscal value of these results cannot be determined in the absence of official consolidated reporting on FEZ tax expenditures. The low share of foreign investment (~10% of the total volume) indicates that the preferential treatment, despite its scale, has not yet become a sufficient incentive for international investors in the face of continuing infrastructure and institutional constraints.

Based on the analysis, the following recommendations for the tax policy of the Republic of Kazakhstan are formulated.

First. Introduce an annual public report on tax expenditures with an estimate for each benefit in absolute terms and in % of GDP according to the OECD / IMF methodology, integrating it into the

official budget process. This measure is sine a sine qua non condition for all subsequent reforms: without a reliable database, it is impossible to correctly assess fiscal losses or compare them with economic benefits. The experience of countries that have implemented such reporting (Australia, Canada, France) shows that the mere fact of public disclosure encourages the abolition of outdated benefits.

Second. To fix in the new Tax Code of the Republic of Kazakhstan the sunset clause mechanism - mandatory automatic termination of benefits after a set period (usually 3-5 years) with the possibility of parliamentary extension if there is a positive assessment of performance. In combination with public reporting, this mechanism ensures systematic updating of the benefits register and eliminates the accumulation of inefficient tools. The adoption of the new Tax Code is the best time to implement this rule.

The third. Conduct an independent audit of fiscal losses from FEZs with the calculation of the coefficients «tax expenses per unit of production» and «tax expenses per created workplace». The audit results should become the basis for differentiating the parameters of FEZ benefits by sector and geographical location-instead of a single exemption regime applied to all types of activities without taking into account their real contribution to economic diversification.

Fourth. Consistently eliminate the differentiation of CPN rates in accordance with the IMF recommendation for 2025, moving to a single standard rate with the necessary reduction in the number of preferential regimes. At the same time, it is advisable to reorient investment incentives from tax exemptions to direct subsidies and investment grants, the transparency and target orientation of which is ensured by budget control mechanisms.

The scientific novelty of the study is the first application of correlation and regression analysis to quantify the relationship between the aggregate volume of tax expenditures and tax revenues of the budget of Kazakhstan in the dynamics of 2015-2024. The established effect of almost complete fiscal displacement (b = −1.063) and the high quality of the model (R2 = 0.9330) provide an empirical justification for revising the preferential policy based on data, rather than on expert judgments. The prospects for further research are: a sectoral analysis of the effectiveness of benefits, an assessment of the effect of individual preferential instruments by the difference of differences method (DiD), as well as a comparative analysis for Central Asian countries with comparable data on tax expenditures.

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