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DOES FISCAL DECENTRALIZATION INFLUENCE ON MANAGEMENT EFFICIENCY OF COUNTRY INNOVATIVE DEVELOPMENT?

Abstract. *This paper summarizes the arguments and counterarguments within the scientific discussion on the influence of fiscal decentralization measures on the management of innovative country development. The main purpose of the research is to test the hypothesis that expenditure and revenue decentralizations have a positive impact on the management of innovative country development. Testing the hypothesis considers realization of panel data regression analysis, and consists of several stages, such as: 1) elimination of control variables multicollinearity based on the correlation analysis; 2) identification of the regression model specification (fixed or random effects model) with the help of Hausman test; 3) realization of the regression analysis and characteristic of its results (confirmation or rejection of the hypothesis). It also should be noted that country sample consists of 12 unitary European countries (Czech Republic, Denmark, Estonia, France, Hungary, Italy, Latvia, Lithuania, Poland, Slovak Republic, Slovenia, and Ukraine). Time horizon – 2008-2018. Global Innovation Index is a measure of innovative country development. At the same time, the ratio of local budget revenue to consolidated budget revenue, the rate of domestic budget expenditure to consolidated budget expenditure, the proportion of local budget tax revenue to gross local budget revenue are measures of fiscal decentralization in the research. There are also selected a set of control variables that often used in economic growth models and reflect macroeconomic perspectives of country development. However, the practical realization of the stages, as mentioned above, allow identifying that fixed effect specification of the model is more appropriate in all three cases (for three different measures of fiscal decentralization). Panel data regression analysis allows confirming the hypothesis on the positive impact of revenue fiscal decentralization and the negative impact of expenditure decentralization on innovative country development. In turn, there is no statistically significant cohesion between ratio of local budget tax revenue to gross local budget revenue and Global Innovation Index. These findings in terms of fiscal decentralization reform might be considered in order to ensure a balance between power (expenditures) redistribution from central to sub-central governments and local budget financial capacity. While in terms of innovative country development, it should be considered that the lack of local budget financial resources to cover all redistributed from central government level powers makes it impossible to invest in the development of innovation. However, the increase of local government financial capacity creates opportunities not just for essential functions financing but also advanced features investment such as innovative development.*

Keywords: fiscal decentralization, innovation development, local budget expenditures, local budget revenue, local community.

Introduction. Fiscal decentralization reform, which was launched in Ukraine in 2014, is aimed at building self-sufficient local communities. It grounds on the expansion of local budget revenue sources, but, in turn, also consider the transfer of some government's functions financing from state to the local level. In such conditions, it becomes crucial to prioritize local budget expenditures to ensure local community sustainable development. In turn, the central precondition of a particular region and the whole country sustainable development is boosting innovations. However, innovative development is no more central government top goal and responsibility, but sub-central governments also. Moreover, the process of triggering changes, as a rule, starts from the local level initiatives via the creation of innovation hubs and then expend national and supranational level.

Literature Review. Some researches are aimed at testing hypotheses about the influence of fiscal decentralization on different country economic indicators in general and its innovative development measure certainly. Kuzior et al. (2019) mentioned that during the last several decades, managerial approaches in sub-central governments changed considerably. Authors suggested that the expansion of fiscal federalism leads to sub-central governments' budgetary autonomy. Still, region and country

innovative and sustainable development are impossible without lifelong education, gaining soft skills by local governments staff and transparency of their activity. Kamara, Leonard, and Haines (2017) also support the idea on the importance to ensure local government staff education and their capability development to trigger local community innovative development and country sustainable economic growth. Tinghua (2011) researched influence of fiscal decentralization (case of China and Russia) on country innovation policy. Author revelled that power decentralization helps to trigger the development of innovations.

Moreover, Aghasiev, Pavlikha, and Riabushenko (2018) highlighted that realization of fiscal decentralization reform in Ukraine allows to reveal both positive and negative consequences. Authors mentioned that lack of harmonization in horizontal and vertical powers distribution between central and sub-central governments lead to the inefficiency of the fiscal decentralization. There is also suggested that the implementation of innovative methods of local budget financial resources' planning and using together with solving of numerous institutional problems might boost local community sustainable and innovative development. Mohamed (2018) also mentioned that in the case of Sudan planning of regions and local community development in an integral precondition of sustainable and innovative development of the whole country. In turn, Strump (1999) based on the findings summarized that fiscal decentralization used to boost innovative development in countries with highly diversified local communities, while centralization is the more relative strategy to manage innovative development in countries with the more homogenous structure of sub-central units. However, Taylor (2007) highlighted that in a long-run perspective, decentralized countries are more vital in ensuring region and country innovative development, while centralized states are not able to provide stable competitiveness in innovation management.

Moreover, Marcel (2019) also proved the positive impact of foreign direct investments (case of Republic of Benin). Namely, the author confirmed empirically positives long-term correlation between innovative economic growth and increase of foreign direct investments. Besides inflow of foreign direct investments triggers qualitative technological transformation in developing countries and stimulates the appearance of new working places. However, Agnihotri and Arora (2019) realized similar research but for the case of India. Authors also pointed out that inflow of foreign investments to developing country economy leads to the development of the business environment, creating new knowledge and modernization of producing technologies. Pilia (2017) analyzed the experience of economic transformations in Lithuania and Estonia. The author found out that more radical strategy is more effective compared with gradual reforms implementation on the way to ensure country sustainable economic development. Chygryn et al. (2018) researched the influence of fiscal decentralization on some macroeconomic indicators using panel data regression analysis. The country sample consists of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Romania, Serbia, Slovenia, Turkey and Ukraine; time horizon – 2006-2015. The authors empirically proved that fiscal decentralization measures influenced on the parameters as follows: GDP level, GDP growth, gross national income per capita, export and import of goods and services, inflation (GDP deflator), net inflows of foreign direct investments, unemployment to total labour force ratio, and social contributions to revenue ratio. While, Vasylieva et al. (2018) pointed out that there is non-linear cohesion between fiscal decentralization measure (expenditure decentralization) and country innovative development (as assessment indicator of decentralization it was chosen sub-central budget expenditures to consolidated budget ratio, while to assess country innovative development authors chose GDP per capita ratio). Namely, authors empirically proved that the relationship between the dependent and independent variables has inverted U-shape and innovative development maximizing when expenditure decentralization is 1.35.

Yang, Li and Li (2020) also mentioned that cohesion between fiscal decentralization and innovative local development has V-shape, but authors found that this relationship is indirect. i.e. fiscal

decentralization inhibits the growth of innovations. Indeed, they revealed that variation of expenditure decentralization in the range from 0.377 and 0.600 is more advantageous for local community innovative development. Kouass (2018) realized a comprehensive analysis of cohesion between government expenditures and country economic and innovative development. The author mentioned that empirical researches results illustrate controversial trends. However, it might be concluded that the impact of government expenditures on country economic growth and innovative development depends on country specificity, volume and structure of expenses.

Moreover, Colombo and Martinez-Vazquez (2020) found out that both expenditures and revenue decentralization result in the decrease of intensity of public investments in research and development. Yushkov (2015) analyzed Russian experience of fiscal decentralization reform implementation and concluded that extensive expenditure decentralization without the same-scale revenue decentralization had a negative consequence for regional economic growth and innovative development. In turn, Liu et al. (2016) also came to familiar conclusions while analyzing the Chinese experience of fiscal decentralization.

Thus, such controversial results proved the necessity for further theoretical and empirical researches of the relationship between proxies of fiscal decentralization and innovative development and its management.

Methodology and research methods. This research aimed at testing the hypothesis that fiscal decentralization does influence country innovative development. The study used the Global Innovation Index (GII) (2020) that is calculated in cooperation by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO) to measure innovative country development. It is estimated from 2007 and represents country performance on the level of the innovation development. It based on 85 individual indicators, which measure country progress in different perspectives concerning innovations (institutional environment development; human capital development; infrastructure development; market development; business environment development; knowledge, technology and creative outputs). GII varies from 0 to 100 points, and a higher score characterizes better country performance in terms of innovative development. GII is the dependent variable.

In turn, to measure fiscal decentralization perspectives, it is chosen several indicators developed by the Organisation for Economic Co-operation and Development (OECD) (OECD, 2020). Namely, to measure revenue decentralization, it is chosen ratio of local budget revenue to consolidated budget revenue (excluding intergovernmental grants in both nominator and denominator); to measure expenditure decentralization, it is accepted proportion of domestic budget expenditure to consolidated budget expenditure (excluding intergovernmental grants); to measure local governments self-sufficiency, it is chosen ratio of local budget tax revenue to gross local budget revenue. These indicators are independent variables. While the hypothesis is likely to be similar to the traditional growth model, it is better to choose a set of control variables to increase the reliability of the modelling results. However, in this research, the set of control variables consists of several indicators that characterise the country economic performance. Namely, consumer price index (2010=100%); current account balance (current US$); domestic credit to private sector (% of GDP); foreign direct investment, net (current US$); GDP growth (annual %); gross capital formation (current US$); new business density (new registrations per 1,000 people ages 15-64); research and development expenditure (% of GDP); trade (% of GDP); total tax and contribution rate (% of profit). All these indicators were collected from the World Development Indicators Collection in the World Bank DataBank (2020).

The country sample consists of 12 unitary European countries (Czech Republic, Denmark, Estonia, France, Hungary, Italy, Latvia, Lithuania, Poland, Slovak Republic, Slovenia, and Ukraine). Time horizon – 2008-2018. Descriptive statistics for all variables (dependent, independent and control) are presented in Table 1.

Table 1. Descriptive statistics for all variables

Variable	Observations	Mean	Std. Dev.	Min	Max
Exp	132	28.379	12.574	12.55	64.28
Rev	132	14.114	7.198	2.78	27.66
Tax	132	12.405	11.36	.91	43.96
GII	132	42.964	7.964	22.4	59.9
CPI	132	108.819	21.404	78.9	261.07
CAB	132	-2.11e+09	1.83e+10	-7.30e+10	5.38e+10
Credit	128	73.077	37.913	32.81	201.26
FDI	132	2.35e+09	1.48e+10	-1.48e+10	7.72e+10
GDPg	132	1.188	4.07	-14.81	7.44
GCF	132	1.13e+11	1.85e+11	4.12e+09	7.04e+11
Dens	131	5.089	4.259	.47	23.59
R&D	120	1.407	.735	.44	3.17
Trade	132	119.385	38.679	45.42	190.16
TotTax	132	46.451	12.005	23.8	72.5

Notes: Std. Dev. – Standard Deviation; Exp – the ratio of local budget expenditure to consolidated budget expenditure; Rev – the ratio of local budget revenue to consolidated budget revenue; Tax – the ratio of local budget tax revenue to gross local budget revenue; GII – Global Innovation Index; CPI – Consumer Price Index; CAB – current account balance; Credit – domestic credit to the private sector; FDI – foreign direct investment, net; GDPg – GDP growth; GCF – gross capital formation; Dens – new business density; R&D – research and development expenditure; TotTax – total tax and contribution rate.

Source: developed by the author.

Information presented in Table 1 allows identifying that there is a different amount of observations for some variables. However, the panel is still solidly balanced, so these omitted observations don't dramatically influence modelling results. It will be used panel data regression analysis in Stata software for testing the hypothesis on the impact of fiscal decentralization on country innovative development. Nevertheless, this process will be subdivided into several steps such as: 1) elimination of control variables multicollinearity based on the correlation analysis; 2) identification of the regression model specification (fixed or random effects model) with the help of Hausman test; 3) realization of the regression analysis and characteristic of its results (confirmation or rejection of the hypothesis).

Results. So, the first stage is correlation analysis with the purpose of elimination of variables multicollinearity problem. Correlation matrix for the set of control variables is presented in Table 2.

Table 2. Correlation matrix for the set of control variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) CPI	1.000									
(2) CAB	0.106	1.000								
(3) Credit	-0.183	0.243	1.000							
(4) FDI	-0.108	-0.388	0.301	1.000						
(5) GDPg	0.032	0.022	-0.236	-0.130	1.000					
(6) GCF	-0.123	-0.423	0.254	0.672	-0.094	1.000				
(7) Dens	-0.055	0.205	0.142	-0.004	0.130	-0.240	1.000			
(8) R&D	-0.198	0.246	0.425	0.323	-0.048	0.267	0.161	1.000		
(9) Trade	0.037	0.262	-0.440	-0.424	0.261	-0.755	0.351	-0.165	1.000	
(10) TotTax	-0.048	-0.490	-0.200	0.392	-0.160	0.674	-0.143	-0.218	-0.355	1.000

Notes: CPI – Consumer Price Index; CAB – current account balance; Credit – domestic credit to private sector; FDI – foreign direct investment, net; GDPg – GDP growth; GCF – gross capital formation; Dens – new business density; R&D – research and development expenditure; TotTax – total tax and contribution rate.

Source: developed by the author.

Cells in Table 2 that are shading in grey colour highlight cases of the moderate and high correlation between control variables, other words reveal multicollinearity problem. One (or several) variables might be eliminated to solve this problem. In our case variable «GCF» (6) – gross capital formation, three times insufficiently correlate with other variable, so to avoid multicollinearity problem it is better to exclude this certain variable from the set.

The next stage of the research is identification of the regression model specification (fixed or random effects model) with the help of Hausman test. Consequently, implementation of the Hausman test lead to the conclusion that for all three models (in each model it is included different measure of fiscal decentralization as an independent variable) it is better to use fixed effects specification of panel data regression. Other words, in terms of the revealing on how fiscal decentralization affecting country innovative development changes in dependent variable (Global Innovation Index) under the change of independent variable (fiscal decentralization measures) depend on country specificity.

The final stage of the research is certainly realization of the regression analysis and characteristic of its results (confirmation or rejection of the hypothesis). Results of the panel data regression analysis for the first independent variable (ratio of local budget expenditure to consolidated budget expenditure) are presented in Table 3.

Table 3. Results of testing the hypothesis about the influence of expenditure decentralization on innovative country development

Variables	Coefficients	St. Err.	t-value	p-value	Significance
CPI	0.035	0.027	1.32	0.191	
Credit	-0.150	0.042	-3.57	0.001	***
FDI	0.000	0.000	3.09	0.003	***
GDPg	0.330	0.118	2.80	0.006	***
Dens	0.861	0.233	3.69	0.000	***
R&D	11.732	2.212	5.30	0.000	***
Trade	0.202	0.050	4.02	0.000	***
TotTax	-0.200	0.115	-1.74	0.085	*
Exp	-0.329	0.183	-1.64	0.107	*
Constant	24.581	8.974	2.74	0.007	***
Model quality measures					
R-squared		0.724	Prob > F		0.000
F-test		27.742	Bayesian crit. (BIC)		624.095
Akaike crit. (AIC)		599.312			

Notes: St. Err. – Standard Error; CPI – Consumer Price Index; Credit – domestic credit to the private sector; FDI – foreign direct investment, net; GDPg – GDP growth; Dens – new business density; R&D – research and development expenditure; TotTax – total tax and contribution rate; Exp – ratio of local budget expenditure to consolidated budget expenditure; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.
Source: developed by the author.

Based on the results from Table 3, it might be noted that inflation is not a statistically significant factor of innovative country development, while the increase of net foreign direct investment, GDP growth rate, new business registrations per 1,000 people ages 15-64, R&D expenditures to GDP ratio, Trade to GDP ratio will result in improvement of the country score according to the Global Innovation Index methodology. Consequently, factors, as mentioned above, are determinants-drivers of innovative country development at a 99% confidence interval. While, increase total tax and contribution rate (% of the profit) in 1% will likely lead to the worsening of the country GII in 0.200 scores, so this factor is an inhibitor of innovative country development (relevance is proved at 90% confident interval). Besides, it is also confirmed the

hypothesis about the influence of the expenditure decentralization on country innovative development (at 90% confident interval). Still, it should be noted that this cohesion is negative: namely, 1% increase the ratio of local budget expenditure to consolidated budget expenditure leads to the decrease of the country GII score in 0,329 points. Such results allow concluding that nowadays unitary European countries realize not highly effective policy in state-to-local level power distribution. Other words, transfer of some functions from central to sub-central governments does not boost local autonomy, innovative and sustainable development, but otherwise creates additional problems and pressure that, in turn, results in inhibiting emerging of innovations. The revealed trend actualizes the necessity of quality transformation of the expenditure decentralization in the researched countries to boost local community and country innovative development. The second independent variable is a measure of revenue decentralization, namely, local budget revenue to consolidated budget revenue. Results of the panel data regression analysis with this variable are presented in Table 4.

Table 4. Results of testing the hypothesis about the influence of revenue decentralization on innovative country development

Variables	Coefficients	St. Err.	t-value	p-value	Significance
CPI	0.034	0.027	1.25	0.213	
Credit	-0.175	0.042	-4.21	0.000	***
FDI	0.000	0.000	2.59	0.011	**
GDPg	0.340	0.120	2.82	0.006	***
Dens	0.706	0.226	3.12	0.002	***
R&D	11.351	2.284	4.97	0.000	***
Trade	0.222	0.052	4.29	0.000	***
TotTax	-0.203	0.122	-1.66	0.100	*
Rev	0.491	0.209	2.21	0.034	**
Constant	9.406	10.041	0.94	0.351	
Model quality measures					
R-squared		0.725	Prob > F		0.000
F-test		24.795	Bayesian crit. (BIC)		623.789
Akaike crit. (AIC)		599.007			

Notes: St. Err. – Standard Error; CPI – Consumer Price Index; Credit – domestic credit to the private sector; FDI – foreign direct investment, net; GDPg – GDP growth; Dens – new business density; R&D – research and development expenditure; TotTax – total tax and contribution rate; Rev – the ratio of local budget revenue to consolidated budget revenue; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.
Source: developed by the author.

So, model quality measure, namely, R-squared (other words, coefficient of determination) illustrates that the model results are sufficient and relevant because the variation of dependent and control variables allow explaining 72,5% variation of the Global Innovation Index. Moreover, all control variables in the second model have almost the same statistical significance, scale and direction of influence on innovative country development measured by GII as in model concerning the impact of expenditure decentralization on country innovative development. However, panel data regression analysis results also allow confirming hypothesis about the influence of revenue decentralization on innovative country development, but controversially to the previous model, it is confirmed the positive direct impact of revenue decentralization on GII at 95% confidence interval. Namely, expansion of the local budget revenue share in consolidated budget revenue by 1% results in an increase of the GII score by 0,491 points. Such a trend additionally allows revealing discrepancy between speed and scale of expenditures and revenue decentralization in the researched 12 countries (namely, the average value of expenditure decentralization – 28.38%, while,

revenue decentralization – only 14.11%). Almost double acceleration of expenditure decentralization in comparison with revenue decentralization leads to the situation when sub-central governments don't have enough financial resources to finance all the range of powers transferred from the central government level that, in turn, results in the decay of local community and country innovative development. However, the essential precondition of effective fiscal decentralization reform is dealing with a balance between transferred powers and financial capacity. Though the lack of budget revenue to finance all necessary expenditures may result in snubbing of innovative and sustainable development. Therefore, it is crucially essential to expand fiscal self-sufficiency of sub-central government to boost their innovative growth.

While revenue decentralization stimulates innovative country development, it is also notable for testing the hypothesis about the influence of the increase of local budget tax revenues on GII (Table 5). The crucial importance of this part of the research is relevant up to the assumption that local taxes and fees, and distributed share of national taxes are the primary sources of local budget revenue formation.

Table 5. Results of testing the hypothesis about the influence of local budget tax revenue increase on country innovative development

Variables	Coefficients	St. Err.	t-value	p-value	Significance
CPI	0.031	0.027	1.16	0.251	
Credit	-0.172	0.042	-4.14	0.000	***
FDI	0.000	0.000	3.17	0.002	***
GDPg	0.362	0.123	2.95	0.004	***
Dens	0.742	0.226	3.29	0.001	***
R&D	12.002	2.272	5.28	0.000	***
Trade	0.224	0.053	4.22	0.000	***
TotTax	-0.243	0.111	-2.19	0.031	**
Tax	0.308	0.371	0.83	0.408	
Constant	13.150	10.029	1.31	0.193	
Model quality measures					
R-squared		0.720	Prob > F		0.000
F-test		27.082	Bayesian crit. (BIC)		626.110
Akaike crit. (AIC)		601.327			

Notes: St. Err. – Standard Error; CPI – Consumer Price Index; Credit – domestic credit to the private sector; FDI – foreign direct investment, net; GDPg – GDP growth; Dens – new business density; R&D – research and development expenditure; TotTax – total tax and contribution rate; Tax – the ratio of local budget tax revenue to gross local budget revenue; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Source: developed by the author.

Based on the value of the coefficient of determination of the third model, it should be noted that the variation of the independent and control variable explains 72% of the GII variation. Results of the panel data regression analysis allow identifying the same drivers and inhibitors of innovative country development among control variables as in two models as mentioned above, while, there is not revealed a statistically significant influence of the increase of local budget tax revenue in gross local budget revenue on country innovative development.

It is also should be noted the variable «CAB» – current account balance (current US$) was eliminated from all three models as a control variable because it dramatically worsened the quality of the models. However, this particular variable has a sufficient correlation with other control variables.

Conclusions. The findings allow confirming the existence of cohesion between expenditure and revenue decentralization indicators and Global Innovation Index as the primary proxy of innovative country development, but rejecting the hypothesis about the increase of local budget tax revenue impact on GII.

However, expenditure decentralization inhibits country economic development, while revenue decentralization, in contrast, boosts it. These revealed trends needed considering both while development and implementation of fiscal decentralization reform and innovative country policy. In terms of budgetary decentralization reform, these findings might be considered to ensure a balance between power (expenditures) redistribution from central to sub-central governments and local budget financial capacity. In turn, research results allow revealing that country innovative development highly dependent on the self-sufficiency of local budgets: lack of financial resources to cover all redistributed from central government level powers makes impossible to invest in the development of innovation. At the same time, the increase of local government financial capacity creates opportunities not just for essential functions financing but also advanced features investment such as innovative development.

Moreover, self-sufficient local communities that are actively involved in innovation creation and distribution processes form the background for country sustainable development and prosperity. However, it also should be noted that such factors as foreign direct investment, GDP growth, new business density, R&D expenditures, and trade positively influence the development of innovations in the country. In contrast, the expansion of crediting activity and tax burden on business leads to inhibiting of innovative development.

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Чи впливає фінансова децентралізація на ефективність управління інноваційним розвитком країни?

У статті узагальнено аргументи та контраргументи в рамках наукової дискусії про вплив фіскальної децентралізації на управління інноваційним розвитком місцевої громади та країни в цілому. Основна мета дослідження – перевірити гіпотезу про те, що децентралізація витрат та децентралізація доходів позитивно впливають на менеджмент інноваційного розвитку країни. Тестування гіпотези передбачає реалізацію регресійного аналізу панельних даних і складається з декількох етапів, таких як: 1) усунення мультиколінеарності змінних управління на основі кореляційного аналізу; 2) ідентифікація специфікації регресійної моделі (модель з фіксованими чи випадковими ефектами) за допомогою тесту Хаусмана; 3) реалізація регресійного аналізу та характеристика його результатів (підтвердження або відхилення гіпотези). Слід також зазначити, що вибірка країни складається з 12 унітарних європейських країн (Чехія, Данія, Естонія, Франція, Угорщина, Італія, Латвія, Литва, Польща, Словаччина, Словенія та Україна). Часовий горизонт – 2008-2018. Глобальний індекс інновацій обрано як кількісна характеристика інноваційного розвитку країни, тоді як відношення доходів місцевого бюджету до доходів консолідованого бюджету, відношення витрат місцевих бюджетів до витрат консолідованого бюджету, відношення податкових надходжень місцевих бюджетів до валових доходів місцевих бюджетів є вимірниками фінансової децентралізації у даному дослідженні. Також у роботі обрано набір контрольних змінних, які часто використовуються в моделях економічного зростання та відображають макроекономічні перспективи розвитку країни, що імплементуються задля посилення точності результатів моделювання. Практична реалізація вищезазначених етапів дозволила визначити, що специфікація моделі з фіксованими ефектами є більш доцільною (за тестом Хаусмана) для всіх трьох вимірників фінансової децентралізації. Реалізований регресійний аналіз панельних даних дозволив підтвердити гіпотезу про позитивний вплив децентралізації доходів на інноваційний розвиток країни та негативний вплив децентралізації видатків на неї. У свою чергу, не існує статистично значимого зв'язку між співвідношенням доходів місцевого бюджету до доходів консолідованого бюджету та Глобальним індексом інновацій. Ці висновки з точки зору реалізації реформи фінансової децентралізації можуть бути застосовані з позиції забезпечення балансу між перерозподілом владних повноважень (видатків) від центральних до місцевих органів влади та фінансовими можливостями місцевого бюджету. У свою чергу, з точки зору інноваційного розвитку країни отримані результати слід враховувати наступним чином: відсутність фінансових ресурсів місцевого бюджету для покриття всіх перерозподілених повноважень центрального уряду робить неможливим вкладення коштів у розвиток інновацій, однак збільшення фінансових можливостей місцевого самоврядування створює можливості не лише для фінансування основних функцій, а також фінансування розширених функцій, таких як інноваційний розвиток.

Ключові слова: видатки місцевого бюджету, доходи місцевого бюджету, інноваційний розвиток, територіальна громада, фінансова децентралізація.