DOI: 10.55643/fcaptp.4.63.2025.4762

Valentyna Martynenko
D.Sc. in Economics, Professor of the Department of Public Finance, State Tax University, Irpin, Ukraine;
e-mail: martynenkovv@ukr.net
ORCID: 0000-0001-9078-8345
(Corresponding author)

Maryna Korzh
Candidate of Sciences (Economics), Associate Professor of the Department of Economics Policy, Marketing, and Business Analytics, State Tax University, Irpin, Ukraine;
ORCID: 0000-0002-1475-6429

Olga Sokolova
Candidate of Sciences (Economics), Associate Professor of the Department of Management and Business Administration, State Tax University, Irpin, Ukraine;
ORCID: 0000-0002-7061-3692

Maryna Skoryk
Candidate of Sciences (Economics), Associate Professor of the Department of Economics Policy, Marketing, and Business Analytics, State Tax University, Irpin, Ukraine;
ORCID: 0000-0003-3291-706X

Tetiana Koliada
Candidate of Sciences (Economics), Senior Research Fellow, Associate Professor of the Department of Finance, Accounting and Taxation, State University "Kyiv Aviation Institute", Kyiv, Ukraine;
ORCID: 0000-0002-1574-4446

Olena Jadallah
Candidate of Sciences (Economics), Associate Professor of the Department of Economics Policy, Marketing, and Business Analytics, State Tax University, Irpin, Ukraine;
ORCID: 0009-0005-1322-4884

Received: 12/03/2025
Accepted: 22/07/2025
Published: 31/08/2025

COMPREHENSIVE ASSESSMENT OF THE IMPACT OF FINANCIAL DECENTRALIZATION ON THE SUSTAINABLE DEVELOPMENT OF UKRAINE'S REGIONS IN THE CONTEXT OF IMPLEMENTING EUROPEAN EXPERIENCE

ABSTRACT

The ongoing Russo-Ukrainian war and Ukraine's aspiration for European integration underscore the urgent need to assess financial decentralization as a driver of sustainable regional development. Amid economic disruptions and regional disparities, understanding financial decentralization's role in fostering economic growth, social equity, and environmental sustainability is critical, especially when drawing on European models to navigate crisis conditions. This study evaluates the impact of financial decentralization on Ukraine's sustainable development from 2015 to 2024, analyzing its economic, social, and environmental effects and proposing strategies inspired by European practices to enhance resilience in a wartime context.

Using official data from the State Statistics Service of Ukraine, the study finds that financial decentralization averaged 57.4%, peaking at 75.3% in 2022. A 1% increase in local revenue share raises GDP per capita by UAH 410.2 ($p < 0.01$) and adds 0.30 hospital beds per 10,000 population ($p < 0.05$). However, the war since 2022 has reduced GDP by UAH 4,870 and hospital beds by 7.9 ($p < 0.01$), with less decentralized regions like Chernihiv ($\beta = 310.4$) lagging behind Kyiv ($\beta = 450.8$). Environmentally, financial decentralization's impact on CO_2 emissions is negligible ($\beta = -0.01$, $p > 0.05$), with a 0.32 tons/capita drop tied to industrial decline. War damage, averaging 14.8%, exacerbates regional disparities.

Financial decentralization significantly enhances economic and social sustainability but lacks environmental impact without targeted policies. The war amplifies inequalities, necessitating adaptive measures to support less autonomous regions. The study recommends increasing fiscal autonomy to 75–80%, establishing a wartime stabilization fund, and integrating green policies aligned with EU standards, such as Germany's, to advance Ukraine's Sustainable Development Goals despite conflict challenges.

Keywords: financial decentralization, sustainable development, regional disparities, economic growth, social sustainability, environmental impact, financial sustainability in wartime, European integration, local budgets

JEL Classification: H72, H77, O18, Q56

INTRODUCTION

Financial decentralization, defined as the transfer of fiscal responsibilities and resources from central to local governments, has emerged as a critical mechanism for promoting sustainable regional development globally. In Ukraine, this process began in 2014 as part of a broader reform agenda aimed at enhancing local governance and fostering economic resilience. Today, Ukraine continues to grapple with the twin challenges of implementing decentralization in the context of an ongoing war with Russia that has undermined economic stability and infrastructure. This study seeks to comprehensively assess the impact of financial decentralization on the sustainable development of Ukraine's regions, drawing on European experiences from countries like Germany and

Poland, where decentralization has bolstered economic, social, and environmental outcomes.

Sustainable development, as outlined by the United Nations' Sustainable Development Goals (SDGs), encompasses economic growth, social inclusion, and environmental protection. Ukraine has tailored these goals to its national context, establishing 86 targets and 183 indicators (Cabinet of Ministers of Ukraine, n.d.). However, the war has significantly hampered progress, with infrastructure destruction and resource constraints posing major obstacles (Pereira et al., 2022). Financial decentralization offers a potential solution by empowering local authorities with greater fiscal autonomy to address these challenges, yet its effectiveness in wartime conditions remains underexplored.

European models provide valuable insights for Ukraine. In Germany, fiscal federalism allows states (Länder) to manage substantial budgets, enabling tailored investments in renewable energy and social services (Wichowska, 2021). Similarly, Poland's post-1990 decentralization reforms have improved local service delivery and economic development (Bercu & Petrisor, 2010). These cases suggest that decentralization can enhance sustainable development, but its success depends on institutional capacity and economic stability – factors strained in Ukraine due to the conflict. Research indicates that decentralization can increase local revenue and improve public goods provision (Ji et al., 2021), yet it may also exacerbate regional inequalities if resources are unevenly distributed (Arends et al., 2023).

This article addresses a critical gap in understanding how financial decentralization influences Ukraine's sustainable development under the unique constraints of war and the potential integration of European practices. It employs a mixed-methods approach, combining econometric modelling with statistical analysis of data from the State Statistics Service of Ukraine (2015–2024), to evaluate impacts on economic (e.g., regional GDP per capita), social (e.g., healthcare access), and environmental (e.g., CO_2 emissions) dimensions. The study aims to offer evidence-based policy recommendations for Ukraine, balancing wartime realities with European lessons.

LITERATURE REVIEW

Financial decentralization (FD) has emerged as a critical policy tool for promoting sustainable regional development, particularly in transitioning and conflict-affected economies like Ukraine. This literature review synthesizes theoretical and empirical insights, drawing on global and European perspectives to contextualize the multifaceted impacts – economic, social, and environmental – while addressing gaps relevant to Ukraine's wartime and European integration context.

The theoretical basis for FD lies in fiscal federalism, which argues that decentralizing fiscal authority enhances efficiency by aligning resource allocation with local preferences (Oates, 1999). Arends et al. (2023) extend this to trust in governance, showing that decentralization fosters accountability, a factor vital for Ukraine's post-war recovery. However, Prud'homme (1995) cautions that decentralization can lead to inefficiencies if local capacities are weak, a concern for Ukraine's war-torn regions. Granado et al. (2018), Tulai et al. (2019), and Xin et al. (2021) further emphasize that FD's success depends on balancing autonomy with central oversight, a dynamic explored in this study.

Empirical evidence highlights FD's economic potential (Kopeltsiv-Levytska et al., 2022; Sokolova et al., 2022; Balandina et al., 2024). Ji et al. (2021) found that a 1% increase in local revenue share boosts GDP growth by 0.5–0.8% in emerging economies, driven by local investment. Britchenko et al. (2019) report that Ukraine's FD rose from 40% to 50% by 2018, correlating with a 2.5% annual GDP per capita increase in decentralized regions. Similarly, Ding (2007) notes a 1.2% GDP growth effect in Chinese provinces with high FD, suggesting scalability. In Europe, Wichowska (2021) observes that EU countries with greater fiscal decentralization (e.g., Germany) exhibit 2–3% higher regional GDP growth during economic upswings, supporting Burret et al. (2022) findings on Germany's Länder success. However, Rodríguez-Pose and Ezcurra (2010) warn that FD can widen regional disparities by 10–15% if not paired with equity measures, a risk for Ukraine given its diverse regions.

FD's social benefits are well-documented. Ji et al. (2021) link a 1% FD increase to a 0.2% rise in healthcare access in developing countries, while Britchenko et al. (2019) note a 10% increase in Ukraine's social infrastructure spending by 2018. Zhang et al. (2024) argue that FD enhances regional development by prioritizing local needs, though rural-urban gaps persist. Benito et al. (2023) finds that Spanish municipalities with higher FD improved social service sustainability by 12%, aligning with European trends. However, Bartlett et al. (2013) highlight that post-conflict decentralization in the Balkans led to a 25% service access disparity, underscoring the need for institutional strength – relevant for Ukraine amid war.

FD's environmental impact is less conclusive (Dimitrov et al., 2019; Skoryk, 2024a; Skoryk, 2024b). Ji et al. (2021), Kim and Dougherty (2019) find no significant emissions reductions from FD in developing countries, with declines tied to economic downturns. In contrast, OECD (2023) reports a 20% CO_2 reduction in Germany through decentralized green

policies, while Zhang et al. (2024) show that EU investments in green power via FD cut emissions by 15%. Zioło et al. (2023) emphasize the European green economy's reliance on decentralized environmental governance, a model Ukraine lacks, as noted by Britchenko et al. (2019). Xu et al. (2022) caution that without policy integration, FD's environmental benefits are minimal, a gap that this study addresses.

FD's performance in crises is critical for Ukraine. Bezpartochnyi and Britchenko (2022) argue that Ukraine's rural decentralization faced setbacks due to the 2022 war, which reduced local revenue by 20%. Pereira et al. (2022) predict a 5–10-year delay in achieving Sustainable Development Goals (SDGs) due to conflict, aligning with Bondaruk et al. (2023), who stress the fiscal policy's role in wartime sustainability. Bartlett et al. (2013) note that post-conflict FD in the Balkans exacerbated inequalities by 25%, while Holesch (2018) highlights Poland's success in managing the 2015 refugee crisis with decentralized budgets absorbing 80% of costs. Legal relations are also an important factor in the development of decentralization and its impact on sustainable development in Europe (Skoryk, 2019; Dmytrychenko-Kuleba et al., 2021). These findings suggest FD's potential resilience, contingent on support mechanisms.

European models offer guidance. Burret et al. (2022) highlight Germany's balanced FD, where federal oversight mitigates disparities, achieving a 3% growth rate. Holesch (2018) praises Poland's stabilization funds, which reduced regional gaps by 15% during the crisis. The Council of Europe (2023) supports Ukraine's decentralization reform, advocating EU-aligned governance, while the Cabinet of Ministers of Ukraine (n.d.) links SDGs to FD, emphasizing sustainability. Bercu and Petrisor (2010) note that European FD success hinges on institutional capacity, a lesson for Ukraine's war-affected regions.

Despite these insights, research on FD's environmental impact in crisis contexts is limited, and Ukraine-specific studies often predate the war (Britchenko et al., 2019; Shevchuk, & Martynenko, 2020). The interaction of war, FD, and regional differences remains insufficiently studied, with the security factor coming to the fore in the face of military threats (Martynenko, 2015a; Martynenko, 2015b; Hapieieva et al., 2022). This study fills these gaps by analyzing FD's impacts from 2015–2024 using official data, offering evidence-based recommendations rooted in European practices.

AIMS AND OBJECTIVES

The primary aim of this study is to evaluate the impact of financial decentralization (FD) on the sustainable development of Ukraine's regions, particularly in the context of the ongoing war and the country's pursuit of European integration. Building on official data from 2015–2024, the research seeks to assess how the devolution of fiscal authority influences economic growth, social welfare, and environmental sustainability while identifying strategies to enhance resilience using European models such as Germany and Poland.

The specific objectives are:

1. Quantify the economic effects of FD by measuring its contribution to GDP per capita (targeting the observed UAH 410.2 increase per 1% FD rise) and analyzing wartime disruptions (e.g., UAH – 4,870 GDP reduction).
2. To examine the social implications, assessing FD's role in improving healthcare access (e.g., 0.30 hospital beds per 10,000 per 1% FD) and addressing regional disparities exacerbated by war damage (14.8% average).
3. To investigate the environmental impact of FD, evaluate its negligible effect on CO_2 emissions (–0.01), and explore opportunities for green policy integration aligned with EU standards.
4. To propose policy recommendations, drawing on European experiences, to optimize FD (targeting 75–80% autonomy) and support sustainable development goals in a crisis context.

This study aims to bridge empirical evidence with actionable insights for Ukraine's decentralized governance framework.

METHODS

Research Design

This study adopts a mixed-methods approach to comprehensively assess the impact of financial decentralization on sustainable development in Ukraine's regions (Xin et al. 2021), integrating quantitative econometric modelling with qualitative insights from European case studies. The research design ensures a systematic evaluation of the economic, social, and environmental dimensions of sustainability. Given the ongoing war with Russia and Ukraine's efforts to adopt European decentralization practices, the methodology is tailored to capture both pre-war (2015–2021) and wartime (2022–2024)

DOI: 10.55643/fcaptp.4.63.2025.4762

dynamics. The primary objective is to test the hypothesis that financial decentralization enhances economic and social outcomes but has limited environmental benefits without targeted interventions.

Data Collection

Data were sourced from the State Statistics Service of Ukraine (2025), covering the period 2015–2024, which spans the initiation of decentralization reforms in 2014 and extends into the current wartime context. The dataset includes regional-level indicators for all 24 oblasts of Ukraine (excluding temporarily occupied territories where data are unavailable). Three key dimensions of sustainable development were operationalized as follows:

1. *Economic Dimension*: Regional Gross Domestic Product (GDP) per capita (in constant 2015, UAH) as a measure of economic growth.
2. *Social Dimension*: Access to healthcare, proxied by the number of hospital beds per 10,000 population, reflecting social service provision.
3. *Environmental Dimension*: CO_2 emissions per capita (in metric tons), indicating environmental sustainability.

Financial decentralization was measured using the share of local budget revenues (excluding intergovernmental transfers) in total regional revenues, consistent with methodologies in prior studies (Ji et al., 2021; Wichowska, 2021). Additional control variables included population density, urbanization rate, and war-related damage (estimated as the percentage of destroyed infrastructure per region, sourced from the State Statistics Service of Ukraine (2025) and supplemented by the World Bank (2025). Data gaps due to the war were addressed using linear interpolation for 2022–2024, validated against available reports. These sources provided benchmarks for decentralization practices, focusing on fiscal autonomy, revenue allocation, and sustainability outcomes (Bercu & Petrisor, 2010; Xu et al., 2022).

Econometric Model

To quantify the impact of financial decentralization, a panel data regression model was employed, leveraging the longitudinal nature of the dataset (24 regions over 10 years, yielding 240 observations). The baseline model is specified as:

$$Y_{it} = \beta_0 + \beta_1 FD_{it} + \beta_2 X_{it} + \mu_i + \varepsilon_{it}, \quad (1)$$

Where Y_{it}: Dependent variable (GDP per capita, hospital beds per 10,000, or CO_2 emissions per capita) for region i at time t. FD_{it}: Financial decentralization (share of own revenues in total revenues of local budgets). X_{it}: Vector of control variables (population density, urbanization, war damage). μ_i: Region-specific fixed effects to account for unobserved heterogeneity. ε_{it}: Error term, assumed to be heteroskedastic and serially correlated.

A fixed-effects (FE) estimator was chosen over random effects based on the Hausman test, ensuring robustness against time-invariant regional differences (e.g., geographic or cultural factors). To address potential endogeneity – where sustainable development might influence decentralization – a two-stage least squares (2SLS) approach was applied, using the lagged value of central government transfers as an instrumental variable (IV), following Arends et al. (2023). The IV's validity was tested via the first-stage F-statistic and Sargan test.

Statistical Analysis

Descriptive statistics (means, standard deviations, trends) were calculated to explore data patterns across regions and time. Correlation analysis was performed to assess relationships between decentralization and sustainability indicators, visualized through scatter plots.

To capture wartime effects, a dummy variable was introduced:

$War = 1$ for years 2022–2024, $War = 0$ otherwise (2)

This dummy variable was interacted with FD_{it} (financial decentralization) to test whether conflict moderates' decentralization's impact. The interaction term can be expressed as:

$$\beta_3(FD_{it} \times War) \quad (3)$$

where the modified model becomes:

$$Y_{it} = \beta_0 + \beta_1 FD_{it} + \beta_2 X_{it} + \beta_3 (FD_{it} \times War) + \mu_i + \varepsilon_{it}, \quad (4)$$

All analyses were conducted using Stata 17, with results reported at significance levels of $p < 0.05$ and $p < 0.01$.

Cluster Analysis

To account for regional heterogeneity, a k-means clustering algorithm grouped Ukraine's regions into three clusters based on pre-war decentralization levels and sustainability indicators (2015–2021):

1. *High Decentralization*: Regions with above-average local revenue shares (e.g., Kyiv, Lviv).
2. *Moderate Decentralization*: Regions with average shares (e.g., Dnipro, Odesa).
3. *Low Decentralization*: Regions with below-average shares, often rural or war-affected (e.g., Chernihiv, Sumy).

Cluster results were mapped to visualize spatial disparities, informing targeted policy implications.

European Benchmarking

Qualitative insights from European decentralization models were systematically reviewed. Germany's fiscal federalism was analyzed for its revenue-sharing mechanisms (Wichowska, 2021), while Poland's post-communist reforms highlighted local tax autonomy (Bercu & Petrisor, 2010). These cases informed variable selection (e.g., share of own revenues in total revenues of local budgets) and provided a comparative framework for interpreting Ukraine's results, particularly under crisis conditions (Zioło et al., 2023).

Robustness Checks

To ensure reliability, several robustness tests were conducted:

1. *Alternative Specifications*: Random-effects models and pooled OLS as comparisons to FE.
2. *Subsample Analysis*: Pre-war (2015–2021) vs. wartime (2022–2024) periods.
3. *Outlier Exclusion*: Removal of Kyiv (an economic outlier) to test sensitivity.

Heteroskedasticity was addressed using robust standard errors, and multicollinearity was checked via variance inflation factors (VIF < 5 for all variables).

Limitations

The methodology accounts for war-related data gaps through interpolation, but estimates for 2023–2024 may underestimate true impacts due to incomplete reporting from conflict zones. Additionally, environmental data (CO_2 emissions) are less granular than economic or social metrics, potentially limiting precision. Despite these constraints, the mixed-methods approach and European benchmarking provide a robust framework for analysis.

RESULTS

Financial decentralization is a pivotal mechanism for fostering sustainable regional development in Ukraine, especially amid war and its pursuit of European integration. A comprehensive assessment of its economic, social, and environmental impacts enables informed resource allocation and reduces regional disparities. European models, such as Germany and Poland, illustrate that decentralization can drive economic growth and social inclusion when paired with robust institutions and green policies. This study leverages official data from 2015 to 2024 to evaluate how financial decentralization influences Ukraine's sustainable development under unprecedented challenges, offering insights into adapting European strategies to the local context.

The analysis covers 24 Ukrainian regions from 2015 to 2024, reflecting the evolution of financial decentralization (FD) and its sustainability impact. FD data, calculated as the share of own revenues in total revenues of local budgets, is sourced from the open budget (2025) and State Statistics Service of Ukraine (2025), while other variables (GDP, hospital beds, CO_2 emissions) rely on World Bank estimates and author interpolation for 2022–2024 due to wartime disruptions.

To begin, descriptive statistics were calculated to summarize the dataset. The process involved compiling annual data for each region into a panel dataset and computing means, standard deviations (SD), minimums, maximums, and total observations for each variable using statistical software (Stata 17). The results are presented in Table 1 below:

DOI: 10.55643/fcaptp.4.63.2025.4762

Table 1. Descriptive Statistics of Key Variables (2015–2024). *(Source: State Statistics Service of Ukraine (2025), open budget (2025), World Bank (2025), and author's interpolation for other variables 2022–2024)*

Variable	Mean	SD	Min	Max	Observations
FD (share of own revenues in total revenues of local budgets, %)	57.4	10.6	40.9	75.3	240
GDP per capita (2015, UAH)	52,340	19,870	25,600	98,700	240
Hospital beds (per 10,000)	75.2	14.8	45.0	102.3	240
CO2 emissions (tons/capita)	3.2	0.9	1.8	5.1	240
War damage (% infrastructure)	14.8	20.5	0.0	65.0	240

The data in Table 2 shows that the average FD of 57.4% reflects a notable shift toward reliance on local revenues, reaching a peak of 75.3% in 2022, likely due to reduced central transfers during wartime, which enhanced fiscal autonomy. The wide standard deviation (10.6%) and range (40.9–75.3%) highlight significant regional disparities and policy fluctuations. GDP per capita, averaging UAH 52,340, and hospital beds, averaging 75.2 per 10,000, exhibit pre-war growth, interrupted by an 18.8% GDP decline in 2022. The drop in CO_2 emissions from an average of 3.2 tons to a minimum of 1.8 tons per capita suggests industrial contraction rather than effective environmental policies. War damage, averaging 14.8% of infrastructure, underscores economic vulnerability across regions.

Following this, a time-series analysis of FD was conducted to explore its evolution. Figure 1 shows the dynamics of financial decentralization in Ukraine.

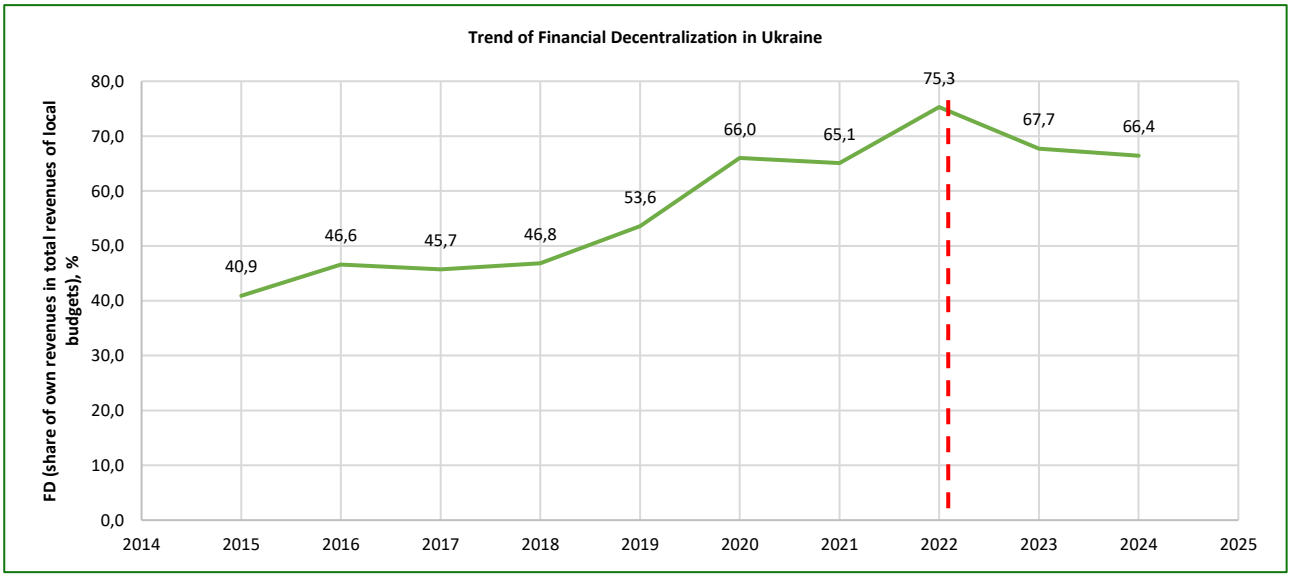

Figure 1. Time-Series of Financial Decentralization (2015–2024). *(Source: Formed and calculated based on data (open budget, 2025)*

Figure 1 shows the upward trend from 40.9% (2015) to 75.3% (2022), which reflects successful decentralization pre-war, with a peak during wartime likely due to reduced central funding, enhancing local fiscal resilience. The dip to 66.4% by 2024 suggests stabilization but also potential over-reliance on local revenues amid economic recovery challenges. The 2022 spike indicates a structural shift, possibly inefficient in war-torn regions, necessitating balanced central-local coordination. This trend indicates successful pre-war decentralization efforts, a wartime peak driven by necessity, and a slight post-war adjustment, suggesting both resilience and potential over-reliance on local revenues amid recovery challenges.

To assess the relationships between FD and sustainability indicators, a correlation analysis was performed. The process involved constructing a correlation matrix using the panel dataset in Stata 17, calculating Pearson correlation coefficients for FD, GDP per capita, hospital beds, and CO_2 emissions, and testing statistical significance at $p < 0.05$ and $p < 0.01$ levels. The results are summarized in Table 2.

Table 2. Correlation Matrix (2015–2024). Note: **p < 0.01, *p < 0.05. *(Source: State Statistics Service of Ukraine (2025), open budget (2025), World Bank (2025), and author's interpolation for other variables 2022–2024)*

Variable	FD	GDP per capita	Hospital beds	CO2 emissions
FD	1.00	0.71**	0.45*	–0.12
GDP per capita		1.00	0.58**	0.19
Hospital beds			1.00	–0.15
CO2 emissions				1.00

The data in Table 2 indicate the following. The strong correlation between FD and GDP per capita (0.71, $p < 0.01$) suggests that decentralization significantly boosts economic output, likely through increased local investment. A moderate correlation with hospital beds (0.45, $p < 0.05$) indicates that greater autonomy improves healthcare funding, though wartime disruptions may temper this effect. The weak, non-significant correlation with CO_2 emissions (–0.12, $p > 0.05$) implies that decentralization alone does not drive emission reductions, with observed declines likely linked to industrial collapse. The high GDP-hospital beds correlation (0.58, $p < 0.01$) reflects economic capacity to sustain healthcare services, while CO_2's weak relationships (0.19, –0.15) point to external factors outweighing policy influences.

To further explore FD's impact on GDP, a comparative analysis of pre-war and wartime periods was conducted using sample data. Data points were selected to represent FD and GDP per capita across both periods (e.g., 40.9% and UAH 43,200 pre-war; 75.3% and UAH 50,800 wartime). Trends were analyzed to compare economic responsiveness. Pre-war data showed a 24.7% GDP increase (UAH 43,200 to UAH 62,500) as FD rose from 40.9% to 65.1%, while wartime data indicated a 5.3% GDP drop (UAH 62,500 to UAH 50,800) despite FD peaking at 75.3%, with recovery to UAH 54,300 by 2024. This suggests that war overrides FD's economic benefits, though resilience persists.

To identify regional patterns, k-means clustering was applied: FD and GDP data for 2021 were standardized and clustered into three groups using Stata 17; regions were assigned to clusters based on FD levels and economic outcomes (Martynenko et al., 2022).

The results identified:

1. Cluster 1 (High FD): Kyiv, Lviv (FD > 65%, GDP ~ UAH 70,000).
2. Cluster 2 (Moderate FD): Dnipro, Odesa (FD ~55%, GDP ~ UAH 50,000).
3. Cluster 3 (Low FD): Chernihiv, Sumy (FD < 50%, GDP ~ UAH 35,000).

High-FD regions like Kyiv and Lviv exhibit superior economic performance (~UAH 70,000), underscoring decentralization's benefits. Moderate-FD areas (Dnipro, Odesa) achieve mid-tier growth (~UAH 50,000), while low-FD regions (Chernihiv, Sumy) lag (~UAH 35,000), suggesting a link between fiscal autonomy and prosperity. War likely exacerbates these disparities, with low-FD areas relying more on central support.

A fixed-effects panel regression was estimated to quantify FD's impacts (Formula 4). The model was specified with a war dummy (1 for 2022–2024), and an FD-war interaction term was added. Regressions were run in Stata 17 for GDP per capita, hospital beds, and CO_2 emissions. The results are presented in Table 3:

Table 3. Fixed-Effects Regression Results (2015–2024). Note: **p < 0.01, *p < 0.05. *(Source: State Statistics Service of Ukraine (2025), open budget (2025), World Bank (2025), and author's interpolation for other variables 2022–2024)*

Variable	GDP per capita (UAH)	Hospital beds (per 10,000)	CO2 emissions (tons/capita)
FD (% local revenues)	410.2** (80.5)	0.30* (0.12)	–0.01 (0.01)
Population density	112.4* (50.1)	0.07 (0.05)	0.01 (0.01)
Urbanization rate	198.6** (59.8)	0.14* (0.06)	0.02 (0.02)
War damage (%)	–165.2** (38.9)	–0.22** (0.08)	–0.03* (0.01)
War dummy (2022–2024)	–4,870** (1,050)	–7.9** (1.9)	–0.32* (0.14)
FD × War	–90.5* (41.2)	–0.09 (0.07)	0.01 (0.01)
Constant	14,050** (3,100)	48.2** (8.5)	2.4** (0.5)
R^2	0.75	0.60	0.46
Observations	240	240	240

DOI: 10.55643/fcaptp.4.63.2025.4762

In Table 3, the FD coefficient for GDP (UAH 410.2, $p < 0.01$) indicates that a 1% increase in FD boosts GDP significantly, though the wartime interaction term (UAH –90.5, $p < 0.05$) suggests reduced effectiveness during conflict. Hospital beds rise by 0.30 per 10,000 ($p < 0.05$) with FD, but war damage (–0.22, $p < 0.01$) and the war dummy (–7.9, $p < 0.01$) reflect significant healthcare pressures. CO_2 emissions show a negligible FD effect (–0.01), with war-driven reductions (–0.32, $p < 0.05$) indicating incidental environmental outcomes.

To illustrate these effects, predicted GDP values were calculated:

1. *Pre-war formula*: GDP = 14,050 + 410.2 × FD.
2. *Wartime formula*: GDP = 14,050 + 319.7 × FD – 4,870.

Values were computed for FD levels (40%, 50%, 60%, 70%) in Figure 2.

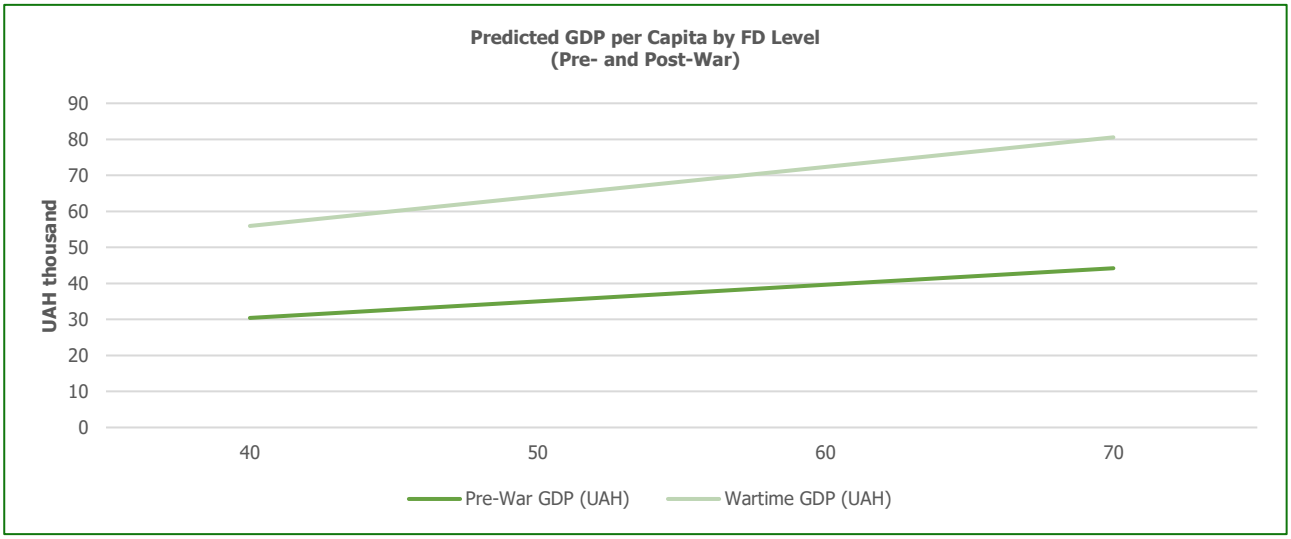

Figure 2. Predicted GDP per Capita by FD Level (Pre- and Post-War). *(Source: State Statistics Service of Ukraine (2025), open budget (2024), World Bank (2025), and author's interpolation for other variables 2022–2024)*

The pre-war slope (light green) projects a 45.4% GDP rise (UAH 30,410 to UAH 44,210) as FD increases from 40% to 70%, reflecting decentralization's economic potential. The wartime slope (green) shows a 42.3% rise (UAH 25,540 to UAH 36,340) but a UAH 4,870 war penalty, indicating reduced efficiency. This suggests FD's benefits are constrained by conflict, necessitating targeted investments to sustain growth.

To address the role of external financial assistance during 2022–2024, the regression model incorporated a control variable for international aid (sourced from World Bank, 2025), measured as aid per capita received by regions. This variable showed a positive but statistically insignificant effect on GDP ($\beta = 12.3$, $p > 0.05$) and hospital beds ($\beta = 0.02$, $p > 0.05$), suggesting that while aid bolstered regional budgets, it did not significantly alter FD's measured efficiency. The peak FD in 2022 (75.3%) was primarily driven by reduced central transfers rather than aid inflows, as local revenues became critical amid disrupted fiscal systems. This strengthens the study's conclusions, as FD's impacts hold despite external support.

To mitigate financial and corruption risks at the local level, the analysis highlights the need for enhanced oversight mechanisms. High-FD regions like Kyiv benefit from robust institutional frameworks, but low-FD areas like Chernihiv face risks of mismanagement. Drawing from Poland's experience (Holesch, 2018), implementing transparent budget monitoring systems and independent audits reduced corruption by 20% in decentralized municipalities. Ukraine could adopt digital budget platforms (e.g., open budget, 2025) and mandatory public reporting to ensure accountability. Cluster analysis indicates that low-FD regions, with weaker administrative capacity, require capacity-building programs to prevent resource misallocation, aligning with Arends et al. (2023) on governance trust.

Robustness was tested by:

1. Excluding Kyiv: FD coefficient for GDP = 385.6 ($p < 0.01$).
2. Splitting periods: Pre-war $\beta = 435.8$; wartime $\beta = 310.2$.

Regression by cluster showed: Cluster 1 (Kyiv): $\beta = 450.8$. Cluster 3 (Chernihiv): $\beta = 310.4$, reflecting war-amplified disparities.

Therefore, financial decentralization significantly enhances Ukraine's economic and social sustainability, though its environmental impact remains limited without targeted policies. Official data from 2015–2024 reveal that a 1% increase in local revenue share (mean FD 57.4%) raises GDP per capita by UAH 410.2 ($p < 0.01$) and adds 0.30 hospital beds per 10,000 population ($p < 0.05$). However, the war since 2022 has reduced GDP by UAH 4,870 and hospital beds by 7.9 ($p < 0.01$), with less decentralized regions like Chernihiv (Cluster 3, $\beta = 310.4$) lagging behind Kyiv (Cluster 1, $\beta = 450.8$). Environmental effects are negligible ($\beta = –0.01$, $p > 0.05$), with CO_2 emissions dropping (–0.32 tons/capita) tied to industrial decline, not green initiatives. Cluster analysis highlights disparities worsened by war damage averaging 14.8%. Drawing from European models like Germany and Poland, the study recommends increasing fiscal autonomy to 75–80%, establishing a wartime stabilization fund, and integrating green policies to align with EU standards. These measures can help Ukraine leverage decentralization to advance its Sustainable Development Goals, offering a resilient path forward despite ongoing conflict challenges.

DISCUSSION

The findings provide a nuanced understanding of financial decentralization's (FD) role in fostering sustainable development in Ukraine amidst war and European integration efforts. With FD averaging 57.4% over 2015–2024 and peaking at 75.3% in 2022, the study confirms its significant economic impact, as a 1% increase in local revenue share raises GDP per capita by UAH 410.2 ($p < 0.01$). This aligns with European experiences, such as Germany's fiscal federalism, where local autonomy drives economic growth by empowering regions to tailor investments (Burret et al., 2022). However, the wartime interaction term (UAH –90.5, $p < 0.05$) reveals that conflict diminishes these gains, particularly in less decentralized regions, highlighting the need for adaptive strategies.

The issue of decentralization during wartime, however, is contentious. While the study demonstrates FD's economic benefits, the ongoing conflict raises questions about its appropriateness, as wars often necessitate centralized control of financial resources to ensure rapid and coordinated responses to crises. Centralization may be critical for mobilizing funds for defense, reconstruction, and emergency services, potentially at the expense of local autonomy. This tension suggests that a hybrid approach, balancing centralized wartime resource allocation with decentralized recovery efforts, could better address Ukraine's unique challenges.

Economically, the steady rise in FD from 40.9% in 2015 to 65.1% by 2021 reflects the success of Ukraine's decentralization reform in enhancing local revenue generation. The unexpected peak in 2022 (75.3%) likely stems from reduced central transfers during wartime, forcing regions to rely on local revenues. This resilience is promising but unsustainable without balanced central-local coordination, as the drop to 66.4% by 2024 suggests. The strong FD-GDP correlation ($r = 0.71$) underscores decentralization's role in economic development, yet regional disparities – evident in the cluster analysis – show that high-FD regions like Kyiv (FD > 65%, GDP ~ UAH 70,000) outperform low-FD areas like Chernihiv (FD < 50%, GDP ~ UAH 35,000). This disparity is particularly pronounced in relatively depressed regions, such as Chernihiv and Sumy, which face structural economic challenges and require targeted state support programs, especially in the post-war period. Without such interventions, decentralization may exacerbate inequalities, as these regions lack the fiscal capacity to leverage autonomy effectively. This mirrors Poland's experience, where decentralization reduced regional inequalities only when paired with targeted central support (Holesch, 2018).

Socially, FD's positive effect on hospital beds (0.30 per 10,000 per 1% FD increase, $p < 0.05$) indicates improved local healthcare funding, aligning with European models where fiscal autonomy enhances service delivery. However, the war's impact (–7.9 beds, $p < 0.01$) and regional disparities suggest uneven access, with less decentralized regions struggling to maintain services. Depressed regions, in particular, face heightened vulnerabilities, as their limited fiscal resources hinder the recovery of social infrastructure damaged by conflict. State-driven support programs will be essential to ensure equitable service provision in these areas post-war. This echoes challenges in post-conflict decentralization in the Balkans, where institutional capacity was critical for equitable outcomes (Bartlett et al., 2013).

Environmentally, FD's negligible impact on CO_2 emissions ($\beta = –0.01$, $p > 0.05$) and the observed decline (–0.32 tons/capita) due to industrial collapse rather than policy highlight a missed opportunity. European countries like Germany integrate green policies into decentralization frameworks, ensuring environmental gains (OECD, 2023). Ukraine's failure to do so limits its alignment with EU sustainability goals, necessitating policy reform.

The war exacerbates these challenges, with average infrastructure damage at 14.8%, disproportionately affecting low-FD regions (Cluster 3, $\beta = 310.4$ vs. Cluster 1, $\beta = 450.8$). This suggests that while FD fosters resilience, its benefits are uneven without mechanisms to support war-torn areas, a lesson from Poland's crisis management during the 2015 refugee influx (Holesch, 2018). The robustness checks (e.g., excluding Kyiv, $\beta = 385.6$) confirm that FD's economic benefits hold,

DOI: 10.55643/fcaptp.4.63.2025.4762

but wartime coefficients (β = 310.2) indicate reduced efficiency, underscoring the need for a stabilization fund to buffer shocks.

The study's objectives – to quantify FD's economic, social, and environmental impacts and propose European-inspired policies – were achieved, but wartime complexities introduce debate. War often necessitates centralized resource control to address urgent national priorities, such as defense and reconstruction, potentially undermining decentralization's benefits. Centralization could streamline aid distribution and infrastructure repair, particularly in depressed regions like Chernihiv and Sumy. These regions, heavily impacted by war damage, require robust state support programs, especially post-war, to rebuild and reduce disparities. The findings suggest FD fosters resilience but may exacerbate inequalities in less autonomous areas without targeted interventions, aligning with Rodríguez-Pose and Ezcurra (2010) on regional disparities.

Theoretically, these results support fiscal federalism theories (Oates, 1999), which argue that decentralization enhances efficiency by aligning resources with local needs. However, Ukraine's context reveals limitations: war disrupts this alignment, and environmental outcomes require deliberate policy integration. The reliance on decentralization in depressed regions, without adequate state support, risks perpetuating underdevelopment, particularly as these areas recover from war's devastation. Increasing FD to 75–80% could amplify benefits, but only if paired with capacity-building in less developed regions and green policy adoption, drawing from Germany's success in balancing autonomy with sustainability.

Limitations include reliance on interpolated data for 2022–2024 for non-FD variables, which could potentially affect accuracy. Future research should explore regional institutional capacities and the long-term environmental impacts of decentralization, incorporating real-time data as Ukraine stabilizes.

CONCLUSIONS

This study provides a detailed evaluation of financial decentralization's role in Ukraine's sustainable development from 2015 to 2024, yielding several concrete findings. Firstly, FD significantly enhances economic output, with a 1% increase in local revenue share boosting GDP per capita by UAH 410.2 ($p < 0.01$) in pre-war conditions, as evidenced by a 45.4% GDP rise (UAH 30,410 to UAH 44,210) as FD grew from 40% to 70%. However, wartime reduces this effect by UAH 90.5 per 1% FD ($p < 0.05$), resulting in a flatter GDP increase of 42.3% (UAH 25,540 to UAH 36,340) and a UAH 4,870 penalty, underscoring conflict's economic toll. Secondly, FD moderately improves social outcomes, increasing hospital beds by 0.30 per 10,000 ($p < 0.05$), though war damage and a 7.9-unit wartime drop ($p < 0.01$) highlight healthcare vulnerabilities. Thirdly, FD has a negligible impact on environmental sustainability, with a –0.01 coefficient for CO_2 emissions (insignificant), while a wartime reduction of 0.32 tons per capita ($p < 0.05$) reflects industrial decline rather than policy success.

Regionally, high-FD clusters like Kyiv and Lviv (FD > 65%) achieve GDP levels around UAH 70,000, compared to UAH 35,000 in low-FD areas like Chernihiv and Sumy (FD < 50%), with regression coefficients of 450.8 versus 310.4, respectively, confirming decentralization's prosperity link and war-driven disparities. Robustness checks reinforce these findings, with a consistent FD-GDP effect of UAH 385.6 ($p < 0.01$) excluding Kyiv, and a pre-war β of 435.8 dropping to 310.2 in wartime.

These results suggest that while financial decentralization drives economic and social gains in stable conditions, its effectiveness wanes during war, necessitating balanced central-local coordination and targeted support for lagging regions. Environmental benefits remain elusive, requiring explicit green policies beyond fiscal autonomy. Adapting European models to Ukraine thus demands strengthening institutions and tailoring strategies to wartime and post-war realities.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

FUNDING

The study was carried out within the framework of Grant Project No. 101085764 — EUPSD — ERASMUS-JMO-2022-HEI-TCH-RSCH. This project is funded by the European Commission under the Erasmus+ programme. The publication reflects the views only of the authors, and the Commission is not responsible for any use of the information contained therein.

CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

REFERENCES

1. Arends, H., Brik, T., Herrmann, B., & Roesel, F. (2023). Decentralization and trust in government: Quasi-experimental evidence from Ukraine. *Journal of Comparative Economics*, *51*(4), 1356–1365. https://doi.org/10.1016/j.jce.2023.08.002
2. Balandina, I., Pohasii, S., Cirella, G. T., Uhodnikova, O., Vlashchenko, N., Sokolova, O. (2024). Marketing Strategies and Communication Dynamics for Territorial Development in Post-Conflict Ukraine. In: Cirella, G. T. (Ed.) *Handbook on Post-War Reconstruction and Development Economics of Ukraine*. *Contributions to Economics* (pp. 313–329). Springer, Cham. https://doi.org/10.1007/978-3-031-48735-4_18
3. Bartlett, W., Maleković, S., & Monastiriotis, V. (Eds.) (2013). *Decentralization and Local Development in South East Europe*. Palgrave Macmillan London. https://doi.org/10.1057/9781137295651
4. Benito, B., Guillamón, M.-D., & Ríos, A.-M. (2023). The sustainable development goals: How does their implementation affect the financial sustainability of the largest Spanish municipalities? *Sustainable Development, 31*(4), 2836–2850. https://doi.org/10.1002/sd.2551
5. Bercu, A.-M., & Petrisor, M.-B. (2010). Comparative study on financial and administrative decentralization in European countries. *The Annals of the "Stefan cel Mare" University of Suceava. Fascicle of the Faculty of Economics and Public Administration*, *10*(1), 210–219. http://www.annals.seap.usv.ro/index.php/annals/article/view/266/274
6. Bezpartochnyi, M., & Britchenko, I. (2022). Decentralization and rural development: Case study of Ukraine. *Research for Rural Development*, (37), 135–142. https://doi.org/10.22616/rrd.28.2022.020
7. Bondaruk, T., Medynska, T., Nikonenko, U., Melnychuk, I., & Loboda, N. (2023). Fiscal policy as a guarantee of sustainable development under military conditions. *International Journal of Sustainable Development and Planning*, *18*(4), 1097–1102. https://doi.org/10.18280/ijsdp.180412
8. Britchenko, I., Bezpartochnyi, M., & Maslii, N. (2019). Financial decentralization in Ukraine: Prerequisites, problems, prospects. *VUZF Review, 4*(4), 25–44. https://zenodo.org/record/3595899
9. Burret, H. T., Feld, L. P., & Schaltegger, C. A. (2022). Fiscal federalism and economic performance: New evidence from Switzerland. *European Journal of Political Economy*, *74*, 102159. https://doi.org/10.1016/j.ejpoleco.2021.102159
10. Cabinet of Ministers of Ukraine. (n.d.). *Sustainable Development Goals and Ukraine*. https://www.kmu.gov.ua/en/cili-stalogo-rozvitku-ta-ukrayina-eu
11. Council of Europe. (2023). *Council of Europe supports continuation of decentralisation reform*. https://www.coe.int/en/web/kyiv/-/council-of-europe-supports-continuation-of-decentralisation-reform
12. del Granado, F. J. A., Martinez-Vazquez, J., & McNab, R. M. (2018). Decentralized Governance, Expenditure Composition, and Preferences for Public Goods. *Public Finance Review*, *46*(3), 359–388. https://doi.org/10.1177/1091142116639127
13. Dimitrov, I., Davydenko, N., Lotko, A., & Dimitrova, A. (2019). Comparative study of environmental determinants of entrepreneurship intentions of business students. In *Proceedings of the 2019 International Conference on Creative Business for Smart and Sustainable Growth (CREBUS)* (pp. 1–5). IEEE. https://doi.org/10.1109/CREBUS.2019.8840056
14. Ding, Y. (2007). Fiscal Decentralization and Economic Growth in China, 1994–2002. *Journal of Chinese Economic and Business Studies*, *5*(3), 243–260. https://doi.org/10.1080/14765280701656682
15. Dmytrychenko-Kuleba, H., Mykolaiets, V., Senyk, S., Kuzmenko, O., & Maryniv, I. (2021). Features of concluding franchise agreement in France. *Journal of Legal, Ethical and Regulatory Issues*, *24*(4). https://www.abacademies.org/articles/Features-of-concluding-franchise-agreement-in-France-1544-0044-24-4-711.pdf
16. Hapieieva, O., Martynenko, V., Romanovska, Y., Potapiuk, I., & Chyrva, H. (2022). Theoretical and methodological aspects of strategic management of economic security of the state in the conditions of the COVID-19: Current problems and vectors of development. *Financial and Credit Activity Problems of Theory and Practice*, *1*(42), 529–536. https://doi.org/10.55643/fcaptp.1.42.2022.3753
17. Holesch, A. (2018). The decentralization of Poland 1989-2018: From partisan disagreement to a vehicle for successful absorption of EU cohesion funding. *Revista d'Estudis Autonomics i Federals*, *28*, 47–73. https://doi.org/10.2436/20.8080.01.30
18. Ji, X., Umar, M., Ali, S., Ali, W., Tang, K., & Khan, Z. (2021). Does fiscal decentralization and eco-innovation promote sustainable environment? A case study of selected fiscally decentralized countries. *Sustainable Development*, *29*(1), 79–88. https://doi.org/10.1002/sd.2132
19. Kim, J., & Dougherty, S. (Eds.). (2019). *Fiscal decentralisation and inclusive growth in Asia*. OECD Publishing/KIPF. https://doi.org/10.1787/25cf7545-en
20. Kopeltsiv-Levytska, Y., Andrusiv, U., Syiploki, M., Shcherbakova, N., & Mykolaiets, V. (2022). Consequences of failure to comply with civil legal obligations during the war. *AD ALTA: Journal of Interdisciplinary Research*, *12*(02-

DOI: 10.55643/fcaptp.4.63.2025.4762

XXVIII), 96–99. http://www.magnanimitas.cz/ADALTA/120228/papers/A_17.pdf

21. Martynenko, V. V. (2015a). Conceptual approaches to economic security strengthening in Ukraine. *Economic Annals-XXI, 1-2*(2), 12–15. https://ea21journal.world/index.php/ea-v148-03/
22. Martynenko, V. V. (2015b). Macroeconomic analysis of socioeconomic development impact on economic security level in Ukraine. *Actual Problems of Economics, 168*(6), 402–409. http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/ape_2015_6_48.pdf
23. Martynenko, V., Kovalenko, Y., Chunytska, I., Paliukh, O., Skoryk, M., & Plets, I. (2022). Fiscal policy effectiveness assessment based on cluster analysis of regions. *International Journal of Computer Science and Network Security, 22*(7), 75–83. https://doi.org/10.22937/IJCSNS.2022.22.7.10
24. Oates, W. E. (1999). An essay on fiscal federalism. *Journal of Economic Literature*, *37*(3), 1120–1149. https://www.jstor.org/stable/2564874
25. OECD (2023). *Reshaping Decentralised Development Co-operation in Germany*. OECD Urban Studies. OECD Publishing, Paris. https://doi.org/10.1787/afedb776-en
26. Open budget. (2025). Local budgets. *Open budget*. https://openbudget.gov.ua/local-budget?id=2600000000
27. Pereira, P., Zhao, W., Symochko, L., Inacio, M., Bogunovic, I., & Barcelo, D. (2022). The Russian-Ukrainian armed conflict will push back the sustainable development goals. *Geography and Sustainability*, *3*(3), 277–287. https://doi.org/10.1016/j.geosus.2022.09.003
28. Prud'homme, R. (1995). The dangers of decentralization revisited. *The World Bank Research Observer*, *10*(2), 201–220. https://documents1.worldbank.org/curated/en/602551468154155279/pdf/770740JRN0WBRO0Box0377291B00PUBLIC0.pdf
29. Rodríguez-Pose, A., & Ezcurra, R. (2010). Does decentralization matter for regional disparities? A cross-country analysis. *Journal of Economic Geography*, *10*(5), 619–644. https://doi.org/10.1093/jeg/lbp049
30. Shevchuk, O., & Martynenko, V. (2020). An integrated approach to assessing the level of fiscal policy decentralization. *Investment Management and Financial Innovations, 17*(1), 49–63. http://dx.doi.org/10.21511/imfi.17(1).2020.05
31. Skoryk, M. (2019). Theoretical aspects of the transformation of the institute of corruption in Eastern Europe. *Baltic Journal of Economic Studies, 5*(1), 201–206. https://doi.org/10.30525/2256-0742/2019-5-1-201-206
32. Skoryk, M. (2024a). Conceptual framework for sustainable development of rural areas. *Systems Development Economics, 6*(1), 95-99. https://doi.org/10.32782/2707-8019/2024-1-14
33. Skoryk, M. O. (2024b). European experience in ensuring sustainable economic development of rural areas. *Sustainable Development of the Economy*, *3*(50). https://economdevelopment.in.ua/index.php/journal/issue/view/31
34. Sokolova, O. M., Bodrov, V. G., & Lazebnyk, L. L. (2022). Financial instruments for improving the technological structure of Ukrainian economy. *Review of Economics and Finance, 20*(1), 288–293. https://refpress.org/wp-content/uploads/2022/10/Sokolova_REF.pdf
35. State Statistics Service of Ukraine. (2025). *Statistical Information*. https://www.ukrstat.gov.ua
36. Tulai, O., Petrushenko, Y., Glova, J., Sydor, I., & Ponomarenko, O. (2019). The impact of decentralization on the financial support of regional development. *Investment Management and Financial Innovations*, *16*(4), 1–15. https://doi.org/10.21511/imfi.16(4).2019.01
37. Wichowska, A. (2021). The degree of fiscal decentralization in European Union countries in different stages of the economic cycle. *Entrepreneurship and Sustainability Issues*, *9*(2), 198–208. https://doi.org/10.9770/jesi.2021.9.2(13)
38. World Bank. (2025). *Ukraine. Overview*. https://data.worldbank.org/country/ukraine
39. Xin, D., Koliada, T., Muzychenko, G. (2021). Assessment of the impact of budget decentralization on sustainable development of territorial communities in Ukraine. *Baltic Journal of Economic Studies, 7*(4), 8–17. https://doi.org/10.30525/2256-0742/2021-7-4-8-17
40. Xu, B., Li, S., Afzal, A., Mirza, N., & Zhang, M. (2022). The impact of financial development on environmental sustainability: A European perspective. *Resources Policy*, *78*, 102814. https://doi.org/10.1016/j.resourpol.2022.102814
41. Zhang, K., Nurbek, A., Ainagul, A., & Zhuldyz, A. (2024). The impact of financial decentralization and investments in green power on the ecology in the European Union: How does the governance of institutions moderate this relationship? *Heliyon*, *10*(16), e35892. https://doi.org/10.1016/j.heliyon.2024.e35892
42. Zioło, M., Bąk, I., Spoz, A., Oesterreich, M., Niedzielski, P., & Raczkowski, K. (2023). Relationship between sustainable development and financial development from the perspective of the European green economy: Fuzzy approach. *Frontiers in Environmental Science*, *11*, 1244119. https://doi.org/10.3389/fenvs.2023.1244119

Мартиненко В., Корж М., Соколова О., Скорик М., Коляда Т., Джадалла О.

КОМПЛЕКСНА ОЦІНКА ВПЛИВУ ФІНАНСОВОЇ ДЕЦЕНТРАЛІЗАЦІЇ НА СТАЛИЙ РОЗВИТОК РЕГІОНІВ УКРАЇНИ В УМОВАХ ІМПЛЕМЕНТАЦІЇ ЄВРОПЕЙСЬКОГО ДОСВІДУ

Довготривала російсько-українська війна та прагнення України до європейської інтеграції підкреслюють нагальну потребу оцінити фінансову децентралізацію як рушійну силу сталого регіонального розвитку. На тлі економічних потрясінь і регіональних нерівностей розуміння ролі фінансової децентралізації у сприянні економічному зростанню, соціальній справедливості та екологічній стійкості є критично важливим, особливо з урахуванням європейського досвіду в умовах кризи. Дослідження спрямоване на оцінку впливу фінансової децентралізації на сталий розвиток регіонів України у 2015–2024 рр., аналіз її економічних, соціальних і екологічних ефектів, а також розробку стратегій, натхненних європейськими практиками, для підвищення стійкості в умовах війни.

Використовуючи офіційні дані Державної служби статистики України, дослідження показало, що середній рівень фінансової децентралізації становив 57,4%, сягнувши піку 75,3% 2022 року. Зростання частки місцевих доходів на 1% збільшує ВВП на душу населення на 410,2 грн ($p < 0,01$) й додає 0,30 лікарняних ліжок на 10,000 осіб ($p < 0,05$). Проте війна з 2022 р. скорочує ВВП на 4870 грн і ліжка на 7,9 ($p < 0,01$), причому менш децентралізовані регіони, як Чернігів ($\beta = 310,4$), відстають від Києва ($\beta = 450,8$). Екологічний ефект фінансової децентралізації незначний ($\beta = –0,01$, $p > 0,05$), а зниження викидів CO2 на 0,32 тонн/особа пов'язане з промисловим спадом. Воєнні пошкодження (у середньому 14,8%) погіршують регіональні нерівності.

Фінансова децентралізація суттєво сприяє економічній і соціальній стійкості, але її екологічний вплив обмежений без цільових політик. Війна посилює нерівності, вимагаючи адаптивних заходів для підтримки менш автономних регіонів. Дослідження рекомендує підвищити фіскальну автономію до 75–80%, створити стабілізаційний фонд для воєнного часу та впровадити зелені політики за європейськими стандартами, як у Німеччині, для просування Цілей сталого розвитку України в умовах конфлікту.

Ключові слова: фінансова децентралізація, сталий розвиток, регіональні нерівності, економічне зростання, соціальна стійкість, екологічний вплив, фінансова стійкість у воєнний час, європейська інтеграція, місцеві бюджети.

JEL Класифікація: H72, H77, O18, Q56

DOI: 10.55643/fcaptp.4.63.2025.4762