DOI: 10.55643/fcaptp.1.66.2026.5019

THE INVESTMENT POTENTIAL IN THE CONTEXT OF CRISIS MANAGEMENT OF THE UKRAINE ECONOMY

Oleksii Tarchynets
PhD Student, Chernihiv Polytechnic National University, Chernihiv, Ukraine;
ORCID: 0009-0004-2146-5875

Oleksandra Sakun
D.Sc. in Economics, Associate Professor of the Department of Business, Administration and Law, Higher Educational Institution "University of Future Transformation", Chernihiv, Ukraine;
e-mail: sakunalexandra@gmail.com
ORCID: 0000-0001-9947-0210
(Corresponding author)

Viktoriia Marhasova
D.Sc. in Economics, Professor of the Department of Finance, Kyiv National University of Technologies and Design, Kyiv, Ukraine;
ORCID: 0000-0001-8582-2158

Halyna Tarasiuk
D.Sc. in Economics, Professor of the Faculty of Business and Service Sector, Zhytomyr Polytechnic State University, Zhytomyr, Ukraine;
ORCID: 0000-0001-5112-102X

Nataliia Vdovenko
D.Sc. in Economics, Professor of the Department of Global Economy, National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine;
ORCID: 0000-0003-0849-057X

Serhii Artemov
Candidate of Economic Sciences, Doctoral Student, Department of Public Administration and Organizations' Management, Chernihiv Polytechnic National University, Chernihiv, Ukraine;
ORCID: 0009-0004-9938-9315

Received: 09/10/2025
Accepted: 25/01/2026
Published: 28/02/2026

ABSTRACT

This article addresses the timely topic of the significance of investment potential in the crisis management of Ukraine's economy. Under martial law conditions, the national economy experiences crisis manifestations, often caused by the insufficiency of the state's internal financial resources during wartime. Therefore, attracting investments through the enhancement of investment potential may become a key instrument for supporting the country's economy and its post-war recovery. The purpose of this study is to define the essence of the concept of investment potential and to clarify its importance for crisis management of the national economy. The article proposes to define the investment resource as the real opportunity to accumulate financial resources within specific sectors of the national economy, followed by their effective application to create new products and services aimed at satisfying societal demand. The research includes economic and mathematical modeling with subsequent forecasting of the integral indicator of Ukraine's investment potential under the influence of factors such as GDP (gross domestic product), disposable income per capita, capital investments, total expenditure on research and development activities, minimum wage, and the country's monthly subsistence minimum. Modeling results reveal a decreasing trend in Ukraine's investment potential. Under such conditions of a negative forecast, the development of strategic decisions for managing investment potential is essential to reduce the impact of destructive factors and to enhance the flexibility of state investment policy. Creating a favorable investment climate, stimulating investment activity, and forming a positive investment image of the country will establish the necessary conditions for increasing investment inflows, thereby strengthening the financial capacity to counteract crisis manifestations in the economy caused by the full-scale war.

Keywords: crisis management, economic crisis, integral indicator, investment activity, investment potential, investments, investing, modeling, national economy

JEL Classification: E22

INTRODUCTION

The ongoing full-scale war in Ukraine has inevitably led to a crisis in the functioning of the national economy. Massive destruction of production infrastructure and energy facilities, disruption of the logistics system, rising inflation, forced labor migration, temporary occupation of parts of the territory, and high expenditures on defense and damage recovery are all exacerbating the economic crisis. Under such conditions, it is objectively necessary to seek ways to bring the Ukrainian economy out of this crisis, ensure its further stabilization, and support its development — objectives that can only be achieved through the adoption and implementation of appropriate management decisions.

The massive destruction and damage to industrial enterprises, the annihilation of energy infrastructure, the outflow of labor resources, high inflation rates, complications in the operation of the transport and logistics system, and the constantly increasing expenditures for military needs — along with other destructive factors—are deepening the crisis of the Ukrainian economy every day.

In this context, two critical tasks become particularly urgent: first, the search for additional sources of financing in the form of investments to cover the deficit of financial resources needed for recovery both now and in the post-war future; and second, steering the national economy out of the crisis through the implementation of appropriate managerial decisions. We view the combination of tools to address both tasks — by increasing Ukraine's investment potential to achieve the goals of crisis management within the context of post-war recovery — as an effective approach to overcoming the multiple economic consequences of the war.

LITERATURE REVIEW

Numerous scholarly studies have examined the nature and specific features of investment potential. Among prominent foreign researchers in this field are W.F. Sharpe, G.J. Alexander, and J.V. Bailey. They interpret the term "to invest" in its broadest sense as "to part with money today in order to receive a greater amount in the future" (Sharpe et al., 1999).

Scholars Lawrence Gitman and Michael Joehnk define investments as a method of allocating capital that should ensure the preservation or growth of capital value and/or generate a positive return (Gitman & Joehnk, 2015).

John H. Dunning (Dunning et al., 2008) introduced the OLI paradigm (Ownership, Location, Internalization), which explains how multinational corporations (MNCs) make use of their resources through three key advantages: ownership (participation in capital), location (benefits tied to geographic placement), and internalization (economic strategies aimed at minimizing or eliminating negative externalities by integrating them within the company's internal processes).

Building on this framework, J. A. Mathews developed the LLL model (Linkage, Leverage, Learning), which expands the range of factors influencing MNCs' investment decisions — particularly in the context of foreign direct investment (FDI) focused on acquiring strategic assets (Mathews, 2006).

B. Hobdari and colleagues (Hobdari et al.,2017) examine how developing countries can successfully direct FDI into developed economies. Similarly, G. L. Ge and D. Z. Ding (Ge, Ding, 2009) use the LLL model to show how certain Southeast Asian firms, through innovative competitive strategies, have managed to enter and succeed in international markets.

Within the Ukrainian academic landscape, significant attention has been given to this concept by R. Boychuk, who analyzed the role of investment potential in advancing an innovation-driven model of Ukraine's economy (Boychuk, 2003) and B. Moskalenko, O. Borovyk, and Ya. Reshetnyak, whose research centered on defining the core of the "investment potential of the national economy" and methods for its evaluation (Moskalenko et al., 2020). As B. Moskalenko argues, the investment potential of the national economy constitutes a multifaceted category that is directly shaped by the involvement of all actors operating within the investment market. Alongside macroeconomic conditions and external influences on the national economic system, a wide range of additional factors also predetermine the trajectory of investment potential development and its practical implementation. Among the most significant of these, the author points to the role of the population, particularly its ability to generate investment resources and its level of participation in investment activities (Moskalenko, 2020).

O. Rudenko contributed to the development of theoretical and methodological principles as well as practical recommendations for shaping and enhancing the investment potential of the national economy (Rudenko, 2018). I. Kramarenko, D. Voyt, and L. Kravets explored the effectiveness of utilizing investment potential in relation to its influence on economic growth (Kramarenko et al.,2019).

AIMS AND OBJECTIVES

The purpose of this article is to define the essence of the concept of investment potential and to clarify its significance for crisis management of the national economy. This objective has led to the formulation of the following tasks:

1. To provide a definition of the concept of investment potential in the context of crisis management of the national economy.
2. To determine the role of investment potential in the crisis management of Ukraine's economy.
3. To propose a methodological toolkit for modeling investment potential under the current conditions of the Ukrainian economy.

METHODS

The research employed the methods of analysis and synthesis to systematize theoretical constructs to the conceptual framework of "investment potential" and to formulate the author's definition of this term; statistical analysis to assess the current state of investment potential and the factors influencing it; the method of economic and mathematical modeling to construct a forecast model of domestic investment potential and to identify the strength of influencing factors in its formation; and methods of generalization and comparison to determine the key characteristics and specific features of the role of investment potential in the anti-crisis management of the national economy.

The following formula has been used to calculate the internal investment potential of a country:

$$IIP = \sum_{t=1}^{n} \frac{GI+IE+IP+INGO+IN}{(1+i)^t} \quad (1)$$

where, IIP *– internal investment potential of the country,* GI *– investment resources of the state,* IE *– investment resources of business entities,* IP *– investment resources of the population,* INGO *– investment resources of non-governmental organizations, charitable foundations, etc.,* IN *– intellectual resources,* t *– year of investment inflow,* i *– annual inflation rate (expressed as a decimal fraction).*

Accordingly:

- GI = SBI + LBI – these are investments from the State Budget (BI) and Local Budgets (LBI), including funds from special-purpose (extrabudgetary) funds;
- IE – represents the annual volumes of profit and depreciation of all enterprises;
- IP – refers to the amount of household savings that can potentially be invested;
- IN – intellectual investment resources, which consist of the volume of scientific and technical output produced by scientific, research, design, and other institutions, as well as the intellectual capital of researchers and innovation products manufactured within the country.

The total investment potential of the country can be reasonably defined as the sum of internal investment potential and foreign direct investment in Ukraine:

$$TIP = IIP + FDI \quad (2)$$

where FDI *– foreign direct investment.*

RESULTS

In the current context, the issue of ensuring economic, political, and social stability is becoming increasingly relevant in order to establish a stable developmental environment for the functioning of the national economy and simultaneously enhance investment potential through the improvement of investment conditions, the de-shadowing of the economy, the enhancement of the country's investment image, and the attraction of foreign investments.

Investment potential should be interpreted as the actual ability to accumulate financial resources in specific sectors of the national economy, followed by their effective use for the creation of new products and services aimed at meeting public demand. Strengthening this potential, especially under wartime conditions, requires the implementation of fundamentally new approaches to the formation and execution of managerial decisions in the economy. This, in turn, involves systematic analytical research of the current economic situation, the development of relevant forecasts, and amendments to state investment policy based on clearly defined strategic priorities (Sakun, 2018).

The essence of anti-crisis management of the national economy should be viewed as a system of preventive measures aimed at minimizing the likelihood of an economic crisis or reducing its obvious manifestations to an acceptable level. This can be achieved through continuous risk monitoring, its mitigation and elimination, and the neutralization of destructive factors that threaten economic stability (Tereshchenko, 2004).

There are multiple perspectives on the comprehensive interpretation of the term "investment potential." When generalized, these can be categorized into several key approaches (Moskalenko et al., 2020):

DOI: 10.55643/fcaptp.1.66.2026.5019

1. Resource-Based Approach: Considers investment potential as the sum of internal resources and capacities of economic actors, yet overlooks the influence and availability of external investment sources.
2. Probabilistic Approach: Defines investment potential as a spectrum of opportunities formed through the interaction of various factors and preconditions, typically manifested in the form of investment flows.
3. Market-Oriented Approach: Interprets investment potential through the lens of anticipated capital needs driven by market dynamics, emphasizing the balance of investment supply and demand. This approach also factors in project-specific conditions such as expected returns, risk levels, and payback periods.
4. Capacity-Oriented Approach: Focuses on the ability of the subject under study (e.g., a region, sector, or entity) to efficiently absorb and utilize capital while taking into account both internal and external factors.
5. Structural Approach: Considers investment potential as an integral part of a broader system of economic potential, alongside labor, innovation, and resource components.
6. Performance-Based Approach: Assesses investment potential in terms of the subject's ability to achieve targeted results by harnessing relevant resources.

In summary, evaluating investment potential entails identifying the maximum attainable outcome that a particular research subject can achieve through the optimal use of available investment resources.

The multifaceted interpretation of the concept of investment potential highlights its complexity and significance for anti-crisis management of the national economy. In the context of wartime losses and budget deficits, investments may become a key factor in the recovery of the Ukrainian economy.

We consider it essential to enhance the investment potential of the national economy through the activation and implementation of the following processes and measures:

1. State support for domestic businesses through tax and financial incentives, continued grant assistance for small and medium-sized enterprises, and enterprise restructuring using best practices from foreign countries.
2. Formation of a positive investment image of the country and individual sectors of the national economy in the global and European markets, leveraging specific features of the national economy, such as the rapid development of the defense industry, the strong agri-industrial complex due to favorable geographical conditions, the wide application of innovations in prosthetics and medical rehabilitation in response to wartime needs, the growth of the pharmaceutical sector, and others.
3. Creation and further development of investment infrastructure, including insurance, consulting, and investment companies, as well as mortgage and investment banks.
4. Promotion of innovative entrepreneurship, support for startups and venture companies, and the establishment of functional business incubators, accelerators, and industrial parks.
5. Enhancing transparency of investment processes and overall business activity to build foreign investor confidence and overcome corruption and bureaucratic barriers.
6. Harmonization of tax, financial, and investment legislation with European standards.
7. Further development and implementation of international agreements on investment cooperation.
8. Development of public-private partnerships, with a focus on their application to post-war recovery projects.
9. Encouragement of cooperation with international financial institutions, not only at the national level but also at local and regional levels.

The implementation of the aforementioned measures and elements of Ukraine's state investment policy will contribute to achieving several key objectives: establishing a mechanism for increasing investment potential by stimulating investment activity and diversifying sources of investment resources; organizing an investment environment characterized by a balance of interests among all stakeholders involved in investment relations, ensured through effective mechanisms of state regulation and oversight, which will help prevent the emergence of crisis phenomena in the national economy; enhancing the competitiveness of domestic businesses in investment markets; attracting the necessary investments for the reconstruction of the country in the post-war period; leading the national economy out of crisis, stabilizing its condition, and ensuring its resilience.

A successful practice of employing investment potential as a powerful means of restoring economic systems is well documented in the experience of a number of foreign countries (Blomström, 2000; Damgaard, 2022; Hogan, 1987).

Under such circumstances, the system of risk management becomes particularly important, as it represents a set of measures aimed at identifying, analyzing, and mitigating the financial risks faced by enterprises, while simultaneously implementing preventive measures (Vasechko, 2018).

The successful achievement of these objectives largely depends on the alignment of interests at the regional and local levels (including territorial communities), which should take into account the specific conditions and economic development potential of each territory. The state is expected to conduct continuous monitoring and provide targeted support to the most strategically important and investment-attractive sectors, with the aim of further balancing the national economy and facilitating its transformation to a new, higher-quality level.

Crisis management can be understood as a structured set of managerial actions aimed at diagnosing, preventing, mitigating, and resolving crisis phenomena and their underlying causes across all levels of management. The authors note that such management relies fundamentally on the general principles and methods of the management process. They further emphasize that the primary objective of crisis management is to maintain a stable financial position by promptly responding to changes in the external environment—economic, political, social, and international—through the application of crisis management instruments to address temporary financial challenges and alleviate indicators of potential bankruptcy (Gobela, 2022).

According to some scholars, crisis management should be regarded as a system of defined and recommended actions, tools, and procedures designed to promote the stabilization of the economic situation, in particular by enhancing indicators of economic security (Yepifanova, 2022).

In this context, for the further identification of key directions for improving the mechanism of investment potential management and in order to assess its current state and forecast potential growth trends, it is advisable to use economic and mathematical modeling to evaluate the investment potential of the national economy. The purpose of such an assessment of investment potential is to conduct a comprehensive analysis and examination of the current level of Ukraine's capacity to attract investments. This will enable the forecasting of its future value to ensure effective management of the processes related to its formation and growth. We believe that the evaluation of investment potential should be based on an analysis of the available economic resources.

An integral part of the formation and further development of investment potential is the identification of influencing factors; therefore, an economic and mathematical model for forecasting the growth of a country's investment potential must take these factors into account. Conceptually, such a model aims to determine the optimal ratio of key factors such as capital investments, innovations, and investment in fixed capital, along with other determinants that influence the overall level of socio-economic development and, as a result, the total gross income. In this study, the impact of various factors on the development of investment potential will be assessed through the application of regression-functional analysis, taking into consideration the country's overall economic potential, the dynamics of investment and innovation processes, key social indicators, and other macroeconomic variables.

Considering the interrelationship between the country's investment potential (IP) and gross domestic product (GDP(X)), it is assumed that IP constitutes a part of GDP(X), namely:

$$IP = A(X) \cdot GDP(X) \quad (3)$$

where, IP *– investment potential,* GDP(X) *– gross domestic product,* X *– explanatory variables (factors).*

At the same time, the same factors (X), such as inflows of foreign investment, simultaneously influence both the investment potential and the aggregate indicator, gross domestic product, as reflected in Formula (3).

To construct a multiple regression model, it is necessary to select potential factors that influence the dependent variable under study, IP. Each factor must possess two key properties: quantitative measurability and availability of statistical data for measurement.

Currently, the selected factors include:

- X_1 (GDP) – Gross Domestic Product, UAH million;
- X_2 – Per capita household income, UAH;

DOI: 10.55643/fcaptp.1.66.2026.5019

- X_3 – Investment in fixed capital, UAH million;
- X_4 – Total expenditures on scientific and technological activities, UAH million;
- X_5 – Minimum wage, UAH;
- X_6 – Monthly subsistence minimum, UAH.

Thus, the number of factors is *m = 6*, and the number of observations (measurements) is *n = 7*.

To represent the connection in which the dependent variable is involved, and a single factor, a simple (univariate) regression model is used. In general form, this model can be expressed as:

$$y_i = f(x_i A) + E, \mathrm{i} = 1,\ 2,\ \ldots, n, \quad (4)$$

where, Y *– the dependent variable (in this case, the investment potential IP),* X *– the independent variable (one of the selected factors),* A *– the intercept (constant term),* E *– random variable representing the portion of variation in y not explained by changes in x,* n *– the number of periods for which the data are considered.*

According to the simple linear regression model, where the independent variable is Ukraine's GDP (X_1), the predicted values of the investment potential (Y) are as follows (Table 1):

Table 1. Key Factors Influencing a Country's Investment Potential. *(Source: author's development based on State Statistics Service of Ukraine)*

Year	GDP, UAH million	X2, UAH	X3, UAH million	X4, UAH million	X5, UAH	X6, UAH	Y – investment potential IP
2017	2 982 920	47 270	448 461.5	13 379.3	3 200	1544	1657
2018	3 558 706	58 442	578 726. 4	16 773.7	3 723	1700	1837
2019	3 974 564	69 140	623 978. 9	17 254.6	4 173	2027	1966
2020	4 194 102	74 688	508 217.1	17 022.4	4 723	2189	2034
2021	5 459 574	86 016	673 899.3	20 973.8	6 000	2393	2428
2022	5 191 028	80 670	409 660.0	17 117.8	6 500	2589	2345
2023	6 537 825	90 200	627 280.8	21 348.1	6 700	2589	2764
Total	31 898 719	506 426	3 869 224.5	123 869.7	31 819	13 487	

The lower the range of possible values of the random variable E, the more accurately the interaction between the factor x and the dependent variable y is described. Therefore, the parameters of the regression model are estimated by minimizing the sum of squared deviations.

$$S = \sum \left(y - f(x_i, A)\right)^2 \longrightarrow min. \quad (5)$$

To construct regression dependencies, both empirical and logical approaches are employed. The empirical approach involves a detailed examination of the initial data by graphically representing the relationship between the dependent variable y and the factor x in the form of a polyline, straight line, or other trial functions. A series of candidate dependencies is tested, and the one that ensures the required level of accuracy and possesses the necessary properties is selected.

In this study, it is assumed that the growth of the dependent variable occurs in proportion to changes in the independent factor. Therefore, a linear regression model is chosen as the most appropriate form of representation.

$$y = a_0 + a_1 \cdot x_1. \quad (6)$$

The coefficient a_1 reflects the regression parameter that shows how the dependent variable varies on average when the independent variable changes by one unit. The degree of association between the dependent indicator and the explanatory factor is assessed using the correlation coefficient.

$$r = \frac{\frac{1}{n}\sum y_1 x_1 - \bar{x}\bar{y}}{\sigma_x \sigma_y}, \quad (7)$$

where, σ *– the standard deviation, which is calculated using the following formula 8-9:*

$$\sigma_X = \sqrt{\frac{1}{n-1}\sum(x_t - \overline{x})^2}, \quad (8)$$

$$\sigma_X = \sqrt{\frac{1}{n-1}\sum(x_t - \overline{x})^2}, \quad (9)$$

where, $\bar{x}\bar{y}$ *– the arithmetic mean value of the factor x and the dependent variable y.*

The purpose of correlation analysis is to determine the degree of association between variables in order to identify which factors should be included in a multiple regression model.

The closer the correlation coefficient is to one, the higher the level of interdependence between the variables.

When the correlation coefficient equals ±1, a perfect functional relationship exists, meaning all observations are positioned precisely along a single linear trajectory. Conversely, a correlation coefficient equal to 0 signifies the absence of any linear dependence between the variables. If the coefficient is positive, the relationship is direct — as the value of the factor increases, so does the dependent variable. If it is negative, the relationship is inverse — an increase in the factor corresponds to a decrease in the dependent variable.

The value R^2 represents the coefficient of determination, which reflects the proportion of variation in the dependent variable explained by the independent factor. R^2 ranges from 0 to 1. The closer the value is to 1, the more the variation in the observed variable can be attributed to the influence of the explanatory factor.

Based on the results of the conducted study and the correlation analysis, it can be concluded that the following independent variables should be included in the multiple regression model:

- GDP (Gross Domestic Product, UAH million);
- X_2 (disposable income per capita, UAH);
- X_3 (capital investments, UAH million);
- X_4 (total expenditures on scientific and technological activities, UAH million);
- X_5 (minimum wage, UAH); X_6 (monthly subsistence minimum, UAH).

An important aspect in constructing a multiple regression model is the determination of the function f, which defines the form of the dependency, as well as the selection of appropriate explanatory variables to be included in the model.

There are main stages of building a regression model for a given indicator:

1. Selection of the system of factors X_p that influence the indicator based on a substantive analysis of the problem. Construction of the correlation coefficient matrix between Y and Xp.
2. Building the regression model.
3. Evaluating the quality of the model.
4. Assessing the influence of individual factors on the indicator Y.

The predictive regression model of the country's investment potential can be expressed by Formula 10 as follows:

$$Y_i = f(X_1, \ \ldots, \ X_n) + e_i, \quad (10)$$

where, Yi *– the investment potential of the country,* Ypi *– the calculated dependent variable,* $X_{1....}$ X_n *– the factors influencing the investment potential (IP),* $f(X)$ *– the mathematical function,* i *– the serial number of the observation,* n *– the sample size,* e_i *– the stochastic variable that describes the influence of factors not accounted for in the model.*

The regression model equation takes the form of a linear relationship:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6, \quad (11)$$

where b_0 *– the intercept (free term),* $b_1 \ldots b_6$ *– the coefficients of the factors, which can be estimated using the* ***least squares method****.*

DOI: 10.55643/fcaptp.1.66.2026.5019

To calculate the regression coefficients, we will apply the least squares method, which involves minimizing the sum of squared residuals:

$$\min_{b_1} \sum_{t=1}^{n} (y^t - y'^t)^2 \equiv \min_{b_1} \sum_{t=1}^{n} (y^t - \sum_{t=1}^{n} b_i X_i^t)^2. \quad (12)$$

In matrix form, the estimation of the coefficients (coefficient matrix A) is written as:

$$A = (X' \cdot X)^{-1} \cdot X' \cdot X. \quad (13)$$

Using econometric analysis methods, the following regression equation was obtained:

Y= 713,8018 + 0,0003X1 - 0,0005X2 -0,00001X3 + 0,0019X4 - 0,0022X5 + 0,0165X6.

Thus, the factors X5, X6, X1, and X4 have a significant impact on the growth of the investment potential. The analysis of the obtained negative values of the standardized regression coefficients for factors X2, X3, and X5 indicates that with their increase, the value of the dependent variable (investment potential, IP) decreases.

When testing statistical significance using the F-test, it was found that the proposed econometric model is statistically significant. Accordingly, for further analysis, t-tests of individual regression coefficients were used, which allow identifying the influence of the explanatory variable Xi on the parameter Y, assuming all other factors remain constant; it was established that there is a strong correlation among the variables included in the model.

The next step is to determine the coefficient of variation. For this, we will prepare the calculation Table 2.

Table 2. Calculation table for determining the coefficient of variation. *(Source: authors' development by the Multiple Regression procedure in Excel)*

Indicator	Standard deviation (Sj)	Average value of the indicator ($\bar{x}$j)	Coefficient of variation (Vj)
Gross Domestic Product, UAH million	1 237 728	4 857 103	0.26
Disposable income per capita, UAH	15 298	70 756	0.22
Capital investments, UAH million	92 944	553 548	0.17
Total expenditures on scientific and technological activities, UAH million	2 909	17 784	0.16
Minimum wage, UAH	1 332	5 417	0.25
Monthly subsistence minimum, UAH	376	2 176	0.17

For each j-th indicator, we will verify the following inequality:

$$V_i \prec e \quad (14)$$

where e - the threshold value.

If the value of the indicator Vj is less than e = 0.1, such indicators are considered quasi-constant and are excluded from further analysis. All indicators remaining after the exclusion of redundant and quasi-constant variables are regarded as equally significant.

The analysis revealed that, in our case, none of the indicators meet the criteria for being quasi-constant. However, due to the heterogeneity and differing units of measurement of the selected indicators, we carried out a standardization (normalization) procedure to allow for more convenient comparison of results by introducing a common measurement scale.

The normalization of values will be performed using formula 15:

$$z_{ij} = \frac{x_{ij} - \overline{x_j}}{s_j} \quad (15)$$

where, x_{ij} – the value of the j-th indicator for the i-th period, $\overline{x_j}$ – the arithmetic means of the j-th indicator, S_j – the standard deviation of the j-th indicator.

Thus, the matrix of normalized indicators is as follows:

$$Z = \begin{vmatrix} -1.20 & -1.36 & -0.91 & -1.57 & -1.20 & -1.37 \\ -0.74 & -0.92 & 0.40 & -0.62 & -0.82 & -1.00 \\ -0.45 & -0.15 & 0.86 & -0.22 & -0.56 & -0.16 \\ -0.28 & -0.19 & -0.31 & -0.29 & -0.21 & 0.26 \\ 0.70 & 1.01 & 1.39 & 0.87 & 0.62 & 0.77 \\ 0.48 & 0.64 & -1.29 & -0.26 & 0.31 & 1.26 \\ 1.50 & 2.08 & 0.86 & 1.18 & 0.86 & 1.24 \\ 1.93 & 1.84 & 1.19 & 1.41 & 1.48 & 1.73 \\ 2.34 & 2.33 & 1.49 & 1.83 & 1.82 & 2.14 \\ 2.78 & 2.81 & 1.78 & 2.22 & 2.26 & 2.53 \\ 3.22 & 3.36 & 2.07 & 2.47 & 2.61 & 2.99 \end{vmatrix}$$

We compare the obtained actual data with the reference value. In our case, it is necessary to determine the coordinates of the reference point. To this end, all indicators are divided into two groups: stimulators and destimulators. An important step in constructing the integral indicator is the classification of the standardized observation matrix into stimulators, whose growth leads to an increase in the level of financial support, and destimulators, which exert an inhibitory effect on the level of investment support.

When forming the reference point (P_0), the maximum values are selected among the stimulator indicators, while the minimum values are chosen among the destimulator indicators.

$$P_0(z_{01}, \ldots, z_{0k}, \ldots, z_{0n}) \tag{16}$$

where, $z_{ok} = \max_i z_{ik}\ k \in J$, $z_{ok} = \min_i z_{ik}\ k \notin J$, *J — the set of stimulator indicators.*

In our case, the reference point P_0 will have the following form:

$$P_0 = |1.501 \quad 3.36 \quad 2.07 \quad 2.47 \quad 2.61 \quad 2.99|$$

We will perform the calculation of the composite assessment, expressed in the form of an integral indicator. First, we determine the distance (C_{i0}) between the points representing the studied elements and the reference point P_0 using formula 17, and then present the results of the calculations:

$$C_{i0} = \sqrt{\sum_{k=1}^{n} (z_{ik} - z_{0k})^2} \tag{17}$$

where, i=1, 2, …., m, k=1, 2, …., n

$$Z = \begin{vmatrix} -1.20 & -1.36 & -0.91 & -1.57 & -1.20 & -1.37 \\ -0.74 & -0.92 & 0.40 & -0.62 & -0.82 & -1.00 \\ -0.45 & -0.15 & 0.86 & -0.22 & -0.56 & -0.16 \\ -0.28 & -0.19 & 0.31 & -0.29 & -0.21 & 0.26 \\ 0.70 & 1.01 & 1.39 & 0.87 & 0.62 & 0.77 \\ 0.48 & 0.64 & -1.29 & -0.26 & 0.31 & 1.26 \\ 1.50 & 2.08 & 0.86 & 1.18 & 0.86 & 2.99 \\ 1.93 & 1.84 & 1.19 & 1.41 & 1.48 & 1.73 \\ 2.34 & 2.33 & 1.49 & 1.83 & 1.82 & 2.14 \\ 2.78 & 2.81 & 1.78 & 2.22 & 2.26 & 2.53 \\ 3.22 & 3.36 & 2.07 & 2.47 & 2.61 & 2.99 \end{vmatrix}$$

Using formulas (18-21), we will determine the values of the composite investment potential index.

$$\mathrm{I_{Ai}} = 1 - \frac{C_{i0}}{C_0} \tag{18}$$

$$C_0 = \overline{C}_0 + 2S_0 \tag{19}$$

$$\overline{C}_0 = \frac{1}{m} \sum_{i=1}^{m} C_{i0} \tag{20}$$

DOI: 10.55643/fcaptp.1.66.2026.5019

$$S_0 = \sqrt{\frac{1}{m}\sum_{i=1}^{m}(C_{i0} - \overline{C_0})^2} \quad (21)$$

The results of the calculations are presented in Table 3.

The values of the coefficients of determination and correlation for this econometric model indicate the statistical significance of the relationship, as they approach unity. The calculated Fisher criteria are significantly greater than the critical values. This confirms the conclusion about the existence of a strong relationship between the volume and the selected independent variables. Therefore, the derived regression equation is reliable and can be used for analysis and forecasting.

Table 3. Modeling the dynamics of investment potential indicators. *(Source: authors' development by the Multiple Regression procedure in Excel)*

Indicator	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Integral indicator of investment potential	0.01	0.32	0.41	0.45	0.30	0.24	0.78	0.70	0.57	0.44	0.33

After building the model and confirming the reliability of its parameters, we will perform an economic-mathematical analysis, that is, calculate the main economic characteristics of the relationship between the volume and the selected factors for the model.

Table 4. Predicted theoretical values of the investment potential index for the years 2017-2027. *(Source: authors' development by the Multiple Regression procedure in Excel)*

Indicator	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Integral indicator of investment potential	0.01	0.32	0.41	0.45	0.30	0.24	0.78	0.47	0.30	0.13	0.10

The graphical representation of the theoretical and forecasted values of the integral investment potential index is shown in Figure 1.

The results of the modeling indicate that Ukraine's investment potential demonstrates a declining trend. Under such conditions of a negative forecast trajectory, it is essential to develop strategic decisions aimed at managing investment potential in order to mitigate the influence of destructive factors and enhance the flexibility of state investment policy. The creation of a favorable investment climate, the stimulation of investment activity, and the formation of a positive investment image of the country will establish the necessary conditions for increasing investment inflows. Consequently, this will strengthen the financial capacity to counteract the crisis phenomena in the economy caused by the full-scale war.

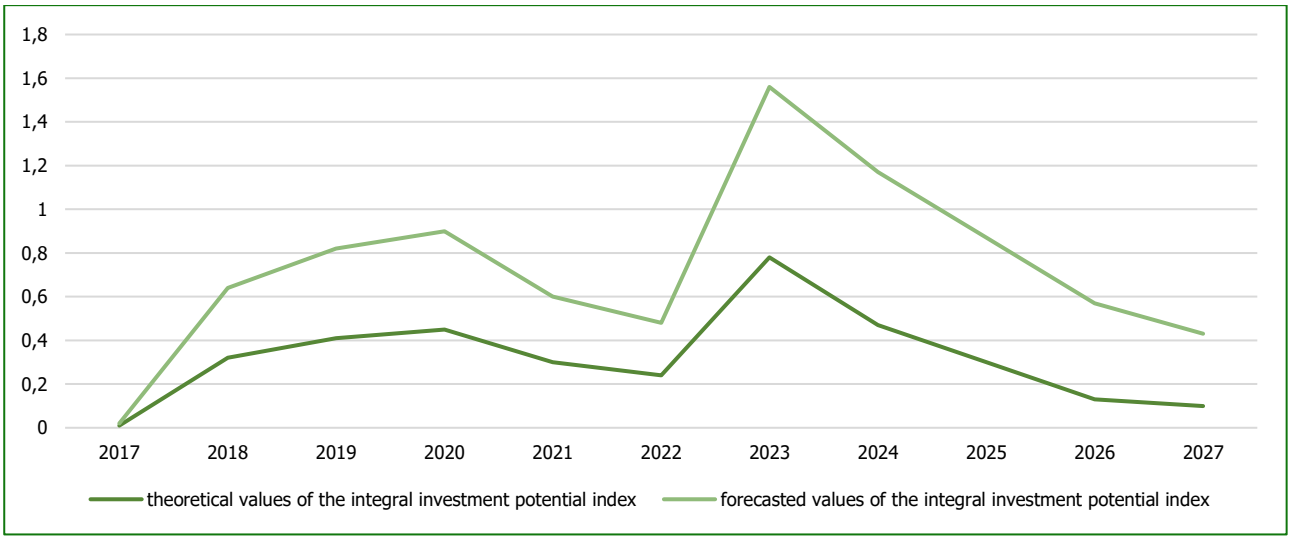

Figure 1. The graphical representation of the theoretical and forecasted values of the integral investment potential index of Ukraine.

To successfully overcome the crisis phenomena in the Ukrainian economy and reverse the downward trend in the realization of investment potential, it is advisable to propose the following actions:

1. Improving the investment climate in the country by sustaining the investment attractiveness of those sectors that, even during wartime, remain appealing and unique from the perspective of investor interests (such as the defense industry, the pharmaceutical and prosthetics sectors, the agricultural industry, etc.).
2. Establishing special economic conditions (special economic zones with preferential tax regimes and simplified bureaucratic procedures) in territories that require enhanced investment support, including border regions and de-occupied areas, where business activity operates under extremely challenging circumstances.
3. The development and approval at the national level of a unified investment development strategy that would take into account all challenges, risks, and threats to the national economy under wartime conditions.
4. Ensuring transparency of investment processes through the extensive use of digital tools (such as the establishment of a unified virtual international investment platform, the application of artificial intelligence technologies, etc.).
5. Further harmonization of national legislation, including in the field of investment activity, with the norms and standards of the European Union, which will accelerate Ukraine's integration into the European investment market and the broader economic space.
6. Strengthening state support for innovative entrepreneurship through the development of effective business incubators and the promotion of a business mentoring culture by establishing a functional mechanism of interaction between educational and research institutions and representatives of the business sector.

The integrated indicator of investment potential presented in our study may serve as a metric for assessing the development of the national economy's investment potential and its influence on the state of crisis or the manifestation of specific crisis features.

Furthermore, Ukraine's European integration will serve as a positive factor for developing investment potential. Aligning legal frameworks, administrative processes, and corporate practices with EU norms and standards is expected to expand investment opportunities and improve the overall appeal of Ukraine's investment climate.

DISCUSSION

I. Kramarenko, D. Voit, and L. Kravets indicate that investment and economic growth, as measured by GDP, are connected through a direct multiplicative linkage. However, this relationship tends to weaken under destabilizing conditions — precisely what has occurred during the war (Kramarenko et al., 2019). Our study demonstrates that one of the key tasks in ensuring the effective realization of investment potential within the framework of crisis management of the economy is the achievement of financial, external economic, political, and social equilibrium. Such a balance will provide stable conditions for the development of the national economy and contribute to the accumulation of investment resources by improving the country's investment image, reducing the shadow economy, and attracting foreign capital.

In her research, "The Role of Foreign Direct Investment in Economic Restructuring: Global Post-War Experience and the Ukrainian Context," I. Shovkun emphasizes that the influx of offshore capital into a national economy serves as an indicator of an unfavorable investment environment (Shovkun, 2023). A key contributing factor is the lack of structural reforms, as enterprises frequently report concerns related to the judicial system, corruption, and interactions with energy providers.

Furthermore, the capacity of investments to facilitate enterprise modernization or to generate wider economic advantages is frequently subject to scrutiny. Cases exist in which foreign investors have not honored their investment obligations, particularly regarding technological upgrades pledged during privatization processes. Such situations have led to prominent legal conflicts and, in certain instances, the re-nationalization of previously privatized enterprises. As a result, the impact of foreign investment in Ukraine on economic development has proven to be highly uncertain.

Empirical data indicate that the positive effects of modernization are most evident when investments are channeled into the establishment of new, technologically advanced enterprises. Nonetheless, certain categories of foreign investors may pose direct risks to the national economy. For instance, investors from developing countries — notably China — have sometimes leveraged acquisitions to gain access to advanced technologies, thereby narrowing their technological gap with global competitors. Another considerable risk arises from hostile takeovers aimed at removing domestic competitors from international markets entirely. Some of these practices occurred during Ukraine's privatization initiatives, where the new owners of formerly state-owned enterprises were, in fact, direct rivals. The outcomes of such acquisitions frequently had adverse consequences for the long-term development prospects of Ukrainian industries (Shovkun, 2023).

DOI: 10.55643/fcaptp.1.66.2026.5019

Therefore, Ukraine's experience with foreign direct investment remains inconsistent and ambiguous from the standpoint of sustainable economic growth. The accumulation of these investments has been distinguished by volatility, comparatively modest volumes, unequal sectoral allocation, and low technological value. Under such conditions, foreign direct investment is likely to be constrained in its efficiency-generating potential gains and stimulate economic development. Consequently, their ability to drive structural modernization is both limited and declining.

Nevertheless, I. Shovkun's conclusions should be viewed with nuance, as the negative experiences cited occurred under substantially different economic and institutional conditions. The arguments presented represent isolated cases, and their systemic nature has not been proven. Our research, in turn, demonstrates the positive impact of increasing investment inflows on overcoming the economic crisis. At the same time, the expansion of investment potential serves as an indicator of economic stabilization in the country and of a positive dynamic in the development of the national economy.

Based on the findings presented in this article, investment potential currently represents an important and powerful instrument for financing post-war reconstruction. To ensure that investment processes in Ukraine are effective and deliver the anticipated outcomes, it is necessary to introduce a more stringent system for monitoring and auditing investment commitments. Legislative improvements in the investment sphere, combined with the application of modern, particularly digital, technologies, will be critically important for enhancing the transparency, responsiveness, and effectiveness of investment activity.

The presented research differs from previous studies in that it is the first to examine investment potential as an instrument of crisis management at the scale of the national economy. Traditionally, investment potential has been considered at the level of individual enterprises or specific sectors. Moreover, there is a lack of studies that establish a direct link between the enhancement of investment potential and counteracting crisis phenomena in the country's economy.

CONCLUSIONS

Based on the conducted research, the investment potential in the context of crisis management of the national economy should be defined as the actual capacity of the national economy to attract financial resources into various economic sectors and subsequently utilize them to stabilize its condition and counteract crisis manifestations.

In this context, the role of investment potential in the crisis management of Ukraine's economy is reflected in the strategy to enhance Ukraine's investment potential, which should become one of the key directions within the system of anti-crisis management, particularly in the framework of post-war recovery. Stimulating investment activity is one of the most effective tools for attracting financial resources into the national economy. This approach will not only help compensate for physical and material losses but also contribute to the financial recovery of the country, enabling the development of new business ventures and the expansion of existing enterprises.

At the same time, increasing Ukraine's investment attractiveness requires significant reforms in the regulatory and legal framework, including:

- reducing bureaucracy in investment processes;
- increasing transparency in doing business;
- minimizing corruption risks;
- introducing effective incentives for investors.

The implementation of these measures will have a positive impact on the overall economic situation in the country and contribute to its stabilization.

The methodological toolkit for modeling investment potential proposed in the article can serve as an effective approach to analyzing and forecasting the real investment opportunities of Ukraine under the conditions of the need to overcome the economic crisis and stabilize its specific manifestations.

The modeling outcomes reveal a downward trend in Ukraine's investment potential. In light of this negative forecast, it is imperative to formulate strategic measures for managing investment capacity in order to reduce the impact of adverse factors and enhance the adaptability of national investment policy. Promoting a favorable investment environment, boosting investment activity, and cultivating a strong investment reputation for the country are critical steps toward increasing capital inflows. These efforts will, in turn, reinforce financial resilience against the economic disruptions brought about by the full-scale war.

The prospects for further research lie in deepening the scientific substantiation of the role and significance of investment potential in the crisis management of the national economy, as well as in applying the developed analytical toolkit to formulate proposals aimed at enhancing the investment potential of the Ukrainian economy.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

FUNDING

The Authors received no funding for this research.

CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

REFERENCES

1. Blomström, M., Konan, D., & Lipsey, R. E. (2000). FDI in the Restructuring of the Japanese Economy. *NBER Working Paper,* 7693. http://www.nber.org/papers/w7693
2. Boychuk, R. M. (2003). *Management of the formation and use of the investment potential of industrial enterprises.* Author's abstract of the dissertation for the degree of Candidate of Economic Sciences, Institute of Regional Research of the National Academy of Sciences of Ukraine. Lviv: Institute of Regional Research of NAS of Ukraine. https://uacademic.info/ua/document/0403U002857
3. Damgaard, J., & S|nchez-Muñoz, C. (2022). United States is world's top destination for foreign direct investment. IMF. https://www.imf.org/
4. Dunning, John H., Lundan, Sarianna M., & Elgar, Edward (2008). *Multinational Enterprisesandthe Global Economy* (2nd ed.). Cheltenham, UK. https://dipiufabc.wordpress.com/wp-content/uploads/2015/06/dunning_multinational-enterprises-and-global-economy.pdf
5. Ge, G.L., & Ding, D.Z. (2009). The Effects of the Institutional Environment on the Internationalization of Chinese Firms. In: Alon, I., Chang, J., Fetscherin, M., Lattemann, C., McIntyre, J.R. (eds). *China Rules*. Palgrave Macmillan, London. https://doi.org/10.1057/9780230274181_3
6. Gitman, Lawrence J., Joehnk, Michael D., Smart, Scott, & Juchau, Roger H. (2015). *Fundamentals of Investing*. Pearson Higher Education AU. https://www.pearson.com/content/dam/one-dot-com/one-dot-com/ca/en/campaigns/fundamentals-of-investing/A01_SMAR4760_01_SE_FM.pdf
7. Gobela, V. V., Zhivko, Z. B., Leskiv, H. Z., & Melnyk, S. I. (2022). Crisis management: a textbook. Lviv: Lviv State University of Internal Affairs. https://dspace.lvduvs.edu.ua/handle/1234567890/4772
8. Hobdari, B., Gammeltoft, P., Li, J. et al. (2017). The home country of the MNE: The case of emerging economy firms. *Asia Pacific Journal of Management, 34*, 1–17. https://www.researchgate.net/publication/313253301_The_home_country_of_the_MNE_The_case_of_emerging_economy_firms
9. Hogan, M. (1987) The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947–1952. Cambridge University Press. https://doi.org/10.1017/CBO9780511583728
10. Kramarenko, I. S., Voit, D. S., & Kravets, L. O. (2019). Efficiency of using the investment potential of the national economy in the context of its impact on economic growth. *Bulletin of Kharkiv National Agrarian University. Series: Economic Sciences, 1,* 403-412. https://repo.btu.kharkiv.ua/server/api/core/bitstreams/36ccc20c-0a57-43f3-860b-2b54c3909dcd/content
11. Mathews, J. (2006). Dragon Multinationals: New Players in 21st Century Globalization. *Asia Pacific Journal of Management*, *23,* 5-27. http://dx.doi.org/10.1007/s10490-006-6113-0
12. Moskalenko, B. A. (2020). Social and political aspects of forming the investment potential of the national economy. *Actual Trends of Modern Scientific Research. Abstracts of the 5th International scientific and practical conference*. MDPC Publishing. Munich, Germany, 504-508. https://sci-conf.com.ua/wp-content/uploads/2020/11/ACTUAL-TRENDS-OF-MODERN-SCIENTIFIC-RESEARCH-8-10.11.20.pdf
13. Moskalenko, B., Borovik, O., & Reshetnyak, Y. (2020). Investment potential of the national economy: a bibliographic analysis. *Bulletin of Economics, 2*, 62-75. https://doi.org/10.35774/visnyk2020.02.062
14. Rudenko, O. A. (2018). *Formation of the investment potential of the national economy*. Author's abstract of the dissertation for the degree of Candidate of Economic Sciences, Bohdan Khmelnytsky National University of Cherkasy. Cherkasy. https://uacademic.info/ua/document/0418U003807

DOI: 10.55643/fcaptp.1.66.2026.5019

15. Sakun, O. S. (2018). Investment resource of structural transformations in the economy. *Bulletin of Khmelnytskyi National University. Economic Sciences*, *6*(264), 182-188. https://journals.khnu.km.ua/vestnik/wp-content/uploads/2021/01/VKNU-ES-2018-N6-%D0%A22-264.pdf

16. Sharpe, W., Gordon, A., & Bailey, J. (1999). *Investments.* Prentice Hall, Inc. https://www.researchgate.net/publication/31774309_Investments_WF_Sharpe_GJ_Alexander_JV_Bailey

17. Shovkun, I. (2023). The role of FDI in economic restructuring: global post-war experience and the Ukrainian con-text. In V.V. Nebrat (Eds.). *Reconstruction for development: foreign experience and Ukrainian perspectives* (pp. 335-356). NAS of Ukraine, SI "Institute for Economics and Forecasting of the NAS of Ukraine". http://ief.org.ua/wp-content/uploads/2023/08/Reconstruction-fordevelopment.pdf

18. Tereshchenko, O. O. (2004). Crisis financial management at the enterprise: monograph. Kyiv: Kyiv National Economic University. http://www.irbis-nbuv.gov.ua/publ/REF-0000035519

19. Vasechko, L. I. (2018). Crisis management as a tool for preventing the threat of bankruptcy of the enterprise. *Effective Economy, 8.* http://www.economy.nayka.com.ua/?op=1&z=6484

20. Yepifanova, I., & Bolotnov, D. (2022). The Role of Strategy in the Anti-Crisis Management System of Enterprises. *Herald of Khmelnytskyi National University, 3*, 335–338. https://doi.org/10.31891/2307-5740-2022-306-3-51

Тарчинець О., Сакун О., Маргасова В., Тарасюк Г., Вдовенко Н., Артемов С.

ІНВЕСТИЦІЙНИЙ ПОТЕНЦІАЛ У КОНТЕКСТІ АНТИКРИЗОВОГО УПРАВЛІННЯ ЕКОНОМІКОЮ УКРАЇНИ

Стаття присвячена актуальній темі значення інвестиційного потенціалу в антикризовому управлінні економікою України. В умовах воєнного стану національна економіка піддається кризовим проявам, що нерідко спричинене недостатністю внутрішніх фінансових ресурсів держави у стані ведення війни, а тому саме залучення інвестицій через нарощення інвестиційного потенціалу може стати ключовим інструментом підтримки економіки держави та її повоєнного відновлення. Метою дослідження є визначення сутності поняття інвестиційного потенціалу та уточнення його значення для антикризового управління національною економікою. У статті запропоновано визначити інвестиційний ресурс як реальну можливість акумулювати фінансові ресурси до окремих секторів національної економіки з подальшим ефективним їх застосуванням задля створення нових продуктів і послуг із метою задоволення суспільного попиту. Під час дослідження здійснено економіко-математичне моделювання з подальшим прогнозуванням інтегрального показника інвестиційного потенціалу України під впливом таких факторів: ВВП (валовий внутрішній продукт; наявний дохід населення в розрахунку на одну особу; капітальні інвестиції; загальна сума витрат на науково-технічну діяльність; мінімальна заробітна плата; місячний прожитковий мінімум у країні. За результатами моделювання виявлено, що інвестиційний потенціал України має тенденцію до зменшення. У таких умовах негативного прогнозного тренду необхідною є розробка стратегічних рішень щодо управління інвестиційним потенціалом із метою скорочення впливу деструктивних факторів і підвищення гнучкості державної інвестиційної політики. Створення сприятливого інвестиційного клімату, активізація інвестиційної діяльності, формування позитивного інвестиційного іміджу країни створять необхідні умови для зростання інвестиційних надходжень, а отже, фінансового забезпечення протидії кризовим проявам в економіці, спричинених повномасштабною війною.

Ключові слова: антикризове управління, економічна криза, інвестиційна діяльність, інвестиції, інвестиційний потенціал, інвестування, інтегральний показник, моделювання, національна економіка

JEL Класифікація: E22