

**ФІНАНСИ, БАНКІВСЬКА СПРАВА, СТРАХУВАННЯ ТА ФОНДОВИЙ РИНОК  
FINANCE, BANKING, INSURANCE AND STOCK MARKET**

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**Hanziuk Svitlana**, Ph.D., Associate Professor, Associate Professor at Department of Finance and Accounting

Dniprovsky State Technical University, Kamianske

ORCID ID: 0000-0001-7859-4708

e-mail: svetlanaganzyuk@gmail.com

**Popova Anzhela**, Master's degree student

Dniprovsky State Technical University, Kamianske

e-mail: angelaermolenko11@gmail.com

**Ганзюк С.М.**, к.е.н., доцент, доцент кафедри фінансів та обліку

Дніпровський державний технічний університет, м. Кам'янське

**Попова А.В.**, здобувач другого (магістерського) рівня

Дніпровський державний технічний університет, м. Кам'янське

**IMPROVEMENT OF METHODOLOGICAL APPROACHES TO FINANCIAL ANALYSIS  
OF ENTERPRISE ACTIVITIES****УДОСКОНАЛЕННЯ МЕТОДИЧНИХ ПІДХОДІВ ДО ФІНАНСОВОГО АНАЛІЗУ  
ДІЯЛЬНОСТІ ПІДПРИЄМСТВА**

*The article examines the methodological apparatus for conducting financial analysis of an enterprise's activities. The key tasks of applying traditional methods, techniques and methods of financial analysis are identified: primary processing of available analytical information; analysis of the state and dynamics of the development of the object of analysis; identification of the influence of factors on financial indicators and processes; assessment of realized and potential reserves for increasing the efficiency of financial resources; generalization of analytical conclusions, substantiation of management decisions, financial plans and forecasts. The application of abstract-logical, economic-logical and economic-mathematical methods of financial analysis is substantiated. The main classical methods of analyzing the efficiency of the enterprise's functioning are grouped (time analysis, structural, trend, analysis of financial ratios, comparative, marginal, factor, stochastic probabilistic). It is noted that today an integrated, comprehensive approach to the financial analysis of an enterprise's activities dominates, which includes a comprehensive study of the enterprise's potential, determination of its competitive positions in the market environment and identification of opportunities for improving financial indicators.*

*The article proposes an improved methodology for analytical assessment of business entities' activities taking into account modern conditions of uncertainty, which takes into account crisis factors, the level of threats and the stress resistance of the financial model. Crisis factors include assessment of supply chain disruptions, loss of sales markets, growth of receivables and inflation risks. Assessment of the level of threats takes into account physical risks to assets, personnel risks, logistical and geopolitical factors. Stress resistance of the financial model is defined as a key indicator of long-term business viability, which demonstrates the ability of the enterprise to maintain solvency and financial balance under the worst conditions. To assess the stress resistance of the enterprise's financial model in war conditions, the study proposes to apply stress testing with the identification of key stages and indicators.*

**Key words:** financial analysis, time analysis, structural analysis, trend analysis, coefficient analysis, stochastic probabilistic analysis, margin analysis, factor analysis, crisis factors, financial risks, stress resistance, stress testing.

У статті згруповано та охарактеризовано ключові завдання застосування традиційних методів, прийомів та способів фінансового аналізу, серед яких первинна обробка наявної аналітичної інформації; аналіз стану та динаміки розвитку об'єкту аналізу; виявлення впливу факторів на фінансові показники й процеси; оцінка реалізованих і потенційних резервів підвищення ефективності використання фінансових ресурсів; узагальнення аналітичних висновків, обґрунтування управлінських рішень, фінансових планів та прогнозів. Обґрунтовано використання абстрактно-логічних, економіко-логічних та економіко-математичних методів при здійсненні фінансового аналізу підприємства. Охарактеризовано основні класичні прийоми аналізу ефективності функціонування підприємства (часовий аналіз, структурний, трендовий, аналіз фінансових коефіцієнтів, порівняльний, маржинальний, факторний, стохастичний імовірнісний). Встановлено, що сьогодні домінує інтегрований, комплексний підхід до фінансового аналізу діяльності підприємства, який охоплює всебічне дослідження потенціалу підприємства, визначення його конкурентних позицій у ринковому середовищі та виявлення можливостей для покращення фінансових показників.

Запропоновано удосконалену методику аналітичної оцінки діяльності суб'єктів господарювання в сучасних умовах невизначеності, яка враховує кризові фактори, рівень загроз та стресостійкість фінансової моделі. До кризових факторів віднесено оцінку порушення ланцюгів постачання, втрати ринків збуту, зростання дебіторської заборгованості та інфляційні ризики. Оцінка рівня загроз передбачає визначення фізичних ризиків для активів, ризики персоналу, логістичні та геополітичні чинники. Стресостійкість фінансової моделі визначено як ключовий показник довгострокової життєздатності бізнесу, яка демонструє здатність підприємства зберігати платоспроможність і фінансову рівновагу за найгірших умов. Для оцінки стресостійкості фінансової моделі підприємства в умовах війни в дослідженні запропоновано застосовувати стрес-тестування з виокремленням ключових етапів та індикаторів. Зазначено, що в умовах війни підприємства функціонують у середовищі, яке характеризується різким зростанням зовнішніх ризиків, високою невизначеністю та нестабільністю внутрішнього середовища, тому традиційний фінансовий аналіз, заснований на минулих періодах і середніх значеннях, втрачає прогностичну силу. Запропонована методика з врахуванням кризових і стресових сценаріїв є важливим інструментом виживання підприємств в умовах війни, який надає змогу не лише оцінити масштаби потенційних втрат, а й своєчасно вжити заходів для збереження фінансової стабільності, бізнес-процесів та довіри стейкхолдерів.

**Ключові слова:** фінансовий аналіз, часовий аналіз, структурний аналіз, трендовий аналіз, коефіцієнтний аналіз, стохастичний імовірнісний аналіз, маржинальний аналіз, факторний аналіз, кризові фактори, фінансові ризики, стресостійкість, стрес-тестування.

**JEL Classification:** B 40, G 32

**Formulation of the problem.** In modern conditions, when Ukraine is in a state of full-scale war, financial analysis of the enterprise's activities becomes critical as a tool for ensuring stability, resilience and viability of the business. Military actions have caused large-scale economic shocks, in particular, destroyed production facilities, disrupted logistics chains, increased risks of asset loss and reduced solvent demand. In such a situation, effective management of the enterprise's finances becomes a determining factor in its survival and adaptation to new realities. Methods of financial analysis in wartime should take into account not only traditional indicators of solvency, profitability, liquidity and business activity, but also an assessment of crisis factors, the level of threats, stress resistance of the financial model, and flexibility of management decisions. The analysis allows for timely identification of financial problems, decision-making on restructuring obligations, optimization of costs, search for additional sources of financing and adaptation to changes in the external

environment. In wartime conditions, financial analysis becomes a strategic tool that not only provides an assessment of the current state of the enterprise, but also forms the basis for anti-crisis management, ensuring economic security, and creating a foundation for post-war recovery and development.

**Analysis of recent research and publications.** Questions regarding the methodology of financial analysis using various coefficients are considered in the works of many scientists, including Kotlyar M. [1], Selivanova N. [2], Karpinska G., Kovalenko M. [3], Petrenko P., Symonenko V., Vorobyova N. [4], Shiyan D. [5]. However, the proposed traditional methodological approaches to conducting financial analysis need to be improved, since during martial law, conducting financial analysis of an enterprise requires significant expansion due to the inclusion in the analytical assessment of crisis factors and the level of threats, which is due to the high instability of the external environment, the unpredictability of events, as well as significant losses of infrastructure, labor resources and financial flows.

**Formulation of the goals of the article.** The purpose of this article is to improve traditional methodological approaches to the financial analysis of enterprise activities by including crisis factors, the level of threats, and the stress resistance of the financial model in the analytical assessment.

**Presentation of the main research material.** The methodological apparatus of economic analysis, which includes both general scientific and special research methods, forms the basis for the implementation of control and analytical procedures. On its basis, in accordance with the set goals, the logic and structure of the methodology for assessing the financial condition of the enterprise are built. The system of methodological support for financial analysis includes various methodologies that are differentiated by the purpose, object of research and specific tasks of analytical work. All of them are aimed at in-depth study of the structure and efficiency of using the financial resources of the enterprise.

When applying the appropriate methodology for financial analysis of the enterprise, it is necessary to clearly distinguish between the general methodology, which provides for a comprehensive approach to the study of any object of financial analysis, and the partial methodology, which specifies the general provisions for the study of individual elements, such as equity, authorized capital, liabilities, provision for future expenses and payments, etc.

Traditional methods, techniques and methods of financial analysis are used at different stages of the study of financial resources in order to solve the following key tasks: primary processing of available analytical information; analysis of the state and dynamics of the development of the objects under study; identification of the influence of factors on financial indicators and processes; assessment of realized and potential reserves for increasing the efficiency of the use of financial resources; generalization of analytical conclusions and implementation of a comprehensive assessment of the financial state; substantiation of management decisions, financial plans and forecasts [3].

The methodology of financial analysis is implemented through the appropriate scientific tools, which includes a system of general scientific and special methods, techniques and research methods, that is, its methodological basis. Thus, abstract-logical methods do not provide a quantitative assessment of economic processes, but form a theoretical basis for their knowledge. Such methods include classical general scientific approaches – analysis and synthesis, induction and deduction, as well as heuristic techniques based on intuition, practical experience and logical conclusions of the researcher. In contrast to the above, economic-logical and economic-mathematical methods allow quantitatively characterizing financial and economic phenomena, identifying patterns of their development, assessing trends and establishing cause-and-effect relationships between financial indicators and individual factors.

Economic-logical methods include such methods of financial analysis that arose at the stage of the formation of this science and do not require the involvement of modern computer technologies for their application. In turn, economic-mathematical methods involve deep analytical processing of data using appropriate software and the participation of highly qualified specialists in the IT sphere and economics [5].

Financial analysis is a key source of reliable factual information that serves as the basis for control, forecasting and decision-making in the field of managing the financial and economic activities of an enterprise, including issues of effective formation, allocation and use of financial resources [2].

Based on established approaches to managing the economic activities of an enterprise, which are used to solve specific management tasks, scientists distinguish the main classical methods of analyzing the effectiveness of its functioning:

- time analysis, which involves comparing each reporting item with a similar position in the previous period. For example, the balance sheet compares indicators at the end and beginning of the year, and the Financial Statement analyzes changes in indicators of the current period relative to the past;

- structural analysis, which is aimed at studying the internal structure of reporting in order to identify the impact of individual elements on the overall financial result. This method is widely used when conducting comparative analysis and for the formation of forecast reporting;

- trend analysis is based on the analysis of the dynamics of indicators over a long period of time, which allows identifying stable trends in the development of the enterprise. The results obtained are used to build forecasts and assess the prospects of the financial condition based on extrapolation.

- analysis of financial ratios (relative indicators) – includes the calculation of the relationships between various items of the balance sheet, the Statement of Financial Results and other forms of reporting. This approach allows you to assess: the liquidity of the enterprise; the structure of financing sources; the turnover of working capital; the efficiency of asset transformation; business activity (in particular, the turnover of receivables and payables, resource utilization); the level of profitability (total and capital); the efficiency of property use; the position of the enterprise in the securities market;

- comparative analysis, which involves comparing the reporting data of the enterprise with other benchmarks: planned, data for previous periods, average industry indicators, the results of competitors or leading enterprises in the industry (including foreign ones);

- margin analysis, which is used to make informed management decisions by studying the relationship between sales volume, costs and profit with the distribution of costs into fixed and variable. It is used in the analysis of profitability, cash flows, as well as to calculate the break-even point;

- factor analysis – allows you to assess the impact of individual factors on the final results of the enterprise. It can have two directions: direct analysis (decomposition of the performance indicator into components) and reverse synthesis (combining individual elements into an integral indicator). The analysis is carried out using deterministic or stochastic models;

- stochastic probabilistic analysis – includes the use of such methods as dispersion, correlation, regression, factor, cluster, discriminant analysis, etc. Its purpose is to study random (probabilistic) relationships between financial indicators and processes that affect the activities of the enterprise [1-4].

Modern concepts of assessing the financial condition of enterprises go beyond the classical approaches, which were limited to the analysis of individual aspects (such as asset structure, financial stability, liquidity, solvency, profitability, business activity). Today, an integrated, comprehensive approach dominates, covering a comprehensive study of the economic potential of the enterprise, determining its competitive position in the market environment and identifying opportunities for improving financial indicators. However, during the period of martial law, conducting a financial analysis of the enterprise requires a significant expansion of the traditional approach.

It is important, in our opinion, to include in the analytical assessment of the enterprise's activities an analysis of crisis factors, the level of threats and stress resistance of the financial model.

Crisis factors include disruption of supply chains, loss of sales markets, growth of receivables and inflation risks, which have a direct impact on the financial results of the enterprise and its ability to function in conditions of uncertainty. We propose to determine supply chain disruptions by quantitative indicators (inventory turnover ratio, average inventory turnover period, share of work in progress in assets) and qualitative indicators (number of terminated supply contracts and changes in logistics routes and costs). Quantitative factors of loss of sales markets can be the rate of change in

revenue from product sales, capacity utilization rate, number of active customers (consumers). We propose to assess the growth of the enterprise's receivables by the receivables turnover ratio, average receivables maturity, share of overdue receivables. Inflation risks are determined by the inflation rate; the index of changes in the cost of production, the dynamics of changes in the average wage at the enterprise, the rate of growth in costs for materials (energy, transport). For a qualitative assessment of crisis factors in war conditions, it is advisable to create a risk matrix with their assessment by probability and impact, conduct horizontal and vertical analysis to identify changes in the structure of income, expenses and assets, evaluate financial stability ratios (autonomy, solvency, debt coverage) and apply scenario analysis to forecast the financial condition.

In our opinion, the assessment of the level of threats should include physical risks to assets, personnel risks, logistical and geopolitical factors, which will allow identifying vulnerable elements in the financial system of the enterprise and determining response scenarios. Physical risks to assets are damage or loss of enterprise property as a result of war, natural disasters, accidents, etc. To assess such risks, it is necessary to carry out an inventory of assets with an assessment of their physical condition, determine the probability of destruction (depending on the location - for example, in a combat zone), and analyze the insurance coverage of assets.

Personnel risks are understood as the loss, outflow or inability to attract employees. To assess such a risk, we determine the level of staff turnover (% of those who left); the incidence / injury rate; the number of mobilized employees; the share of personnel who work remotely or are displaced. Logistical risks - disruption of transport corridors, fuel shortages and road blockages, are assessed through an analysis of delivery times compared to the pre-war period, changes in logistics costs, the number of disrupted deliveries. Analysis of geopolitical factors (political decisions, war, bans, instability in partner countries) should include monitoring changes in legislation and international agreements, a political stability index (based on international sources - for example, the World Bank), the likelihood of escalation of military actions in the region of the enterprise's operations.

The stress resistance of the financial model becomes a key indicator of the long-term viability of the business. It demonstrates the ability of the enterprise to maintain solvency and financial balance even under the worst conditions - a sharp drop in revenue, an increase in expenses or a partial loss of assets. To assess the stress resistance of the financial model of the enterprise in war conditions, it is necessary to apply stress testing - a modeling method that allows you to check how the financial system of the enterprise will withstand the impact of critical external and internal shocks. The key stages and indicators that need to be taken into account include:

1. Identification of key risks (input data): a drop in revenue (loss of the market, a decrease in demand); an increase in cost (inflation, energy); loss of assets or logistics chains; mobilization or loss of key personnel
2. Construction of scenarios: basic (current trends without exacerbation), pessimistic (a drop in revenue of more than 30%; an increase in expenses of more than 20%), critical (destruction of assets, a stoppage of production).
3. Determination of key financial metrics: EBITDA; Cash-Flow; profitability of sales, assets, capital; solvency; liquidity reserve.
4. Qualitative assessment of sustainability: availability of a crisis plan, determination of the possibility of market diversification and flexibility of the business model.

Inclusion of analysis of crisis and stress scenarios in financial analytics will allow enterprises not only to adequately assess their current state, but also to form a sustainability strategy that will ensure the preservation and development of the business in conditions of extreme economic and political turbulence.

**Conclusions.** In conditions of war, enterprises operate in an environment characterized by a sharp increase in external risks, high uncertainty, instability of the internal environment. In such conditions, traditional financial analysis, based on past periods and average values, loses its predictive power. Instead, stress testing and analysis of crisis scenarios allow:

1. Assess the resilience of the business model to negative shocks (identify which factors have the greatest impact on the profitability and liquidity of the enterprise; determine to what level of income reduction or cost increase the enterprise can survive without losing solvency).

2. Predict the financial consequences of the loss of assets, personnel or supply chains.
3. Plan management decisions in advance regarding cost optimization, reserve funds, risk diversification, alternative sources of supply and sales.
4. Communicate with investors, banks and partners. The presence of ready-made stress scenarios increases the trust of financial institutions and facilitates negotiations on debt restructuring or obtaining new financing.
5. Form an action plan in emergency circumstances: an anti-crisis plan helps to avoid panic and chaotic decisions and allows you to clearly identify responsible persons and response algorithms.

Therefore, an improved methodology for conducting financial analysis of an enterprise, taking into account crisis and stress scenarios, is a survival tool for enterprises in wartime, which allows not only to assess the scale of potential losses, but also to take timely measures to preserve financial stability, business processes, and stakeholder trust; the basis of strategic flexibility and adaptability in conditions of total uncertainty.

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