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IDENTIFICATION OF FINANCIAL RISKS IN THE ACCOUNTING INFORMATION SYSTEM: PROGNOSTIC CONTEXT

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ABSTRACT

The aim of the study is to highlight approaches to the identification and assessment of financial risks in the accounting information system in the context of forecasting the company's development.

The author substantiates the position that forecasting the financial stability of an enterprise in the context of global challenges and martial law is quite difficult since these unfavourable factors form the circumstances that cause not only a reduction in the volume of active activity of an enterprise but also a potential complete shutdown and irreversible loss of property or resources. Force majeure circumstances are characterized by unpredictability and impossibility of forecasting, which complicates the process of analytical forecasting.

The article concludes that in order to assess the impact on financial risk forecasting, it is necessary to carry out a number of procedures, including identification of certain types of risks, assessment of the range and reliability of information required to determine their level, and study of the impact of objective and subjective factors, influencing the level of enterprise risks, selection and use of methods for assessing the probability of occurrence of a risk event by certain types of risks, determination of the number of possible losses in the event of a risk event, establishing the maximum permissible level of risks for certain types of activities, taking into account the availability of risk management measures at the enterprise.

The study concluded that after the start of the full-scale invasion, Ukrainian companies began to prepare financial forecasts more often. In the context of martial law, when the situation can change radically and within short periods of time, companies seek to adjust their expectations as often as possible in accordance with updated information.

Keywords: financial risks, financial forecasting, accounting information, uncertainty, martial law

JEL Classification: D25, M21, M41, G32

INTRODUCTION

It is difficult to predict the financial stability of a company in the context of global challenges and martial law, as they create events that involve not only a reduction in the volume of active business but also a possible complete shutdown and even irreversible loss of property or resources. Force majeure circumstances are characterized by unpredictability and impossibility of forecasting, which complicates the analytical process.

Ukrainian businesses are facing significant challenges. According to the published estimates of the Center for Economic Recovery (CER) and the international group of companies ADVANTER GROUP within the framework of the United Nations Development Program (UNDP) Support to Ukraine project, financial losses of Ukrainian enterprises during the war showed different trends. Only 9.5% said they had no financial losses. However, the hostilities caused losses to large and medium-sized businesses. In the first nine months of 2022, companies reported a total loss of UAH 134.7 billion, given that they had UAH 321.8 billion in profit in the same period in 2021. The largest share of

losses was incurred by manufacturing companies (UAH 82.7 billion) and energy (supply of electricity, gas, steam and air conditioning) (UAH 75.9 billion) [1].

According to the National Bank of Ukraine and calculations by the Ministry of Economy of Ukraine, the value of exports of goods in January-November 2023 decreased by 16.8% compared to the same period in 2022. In contrast, imports of goods increased by 15.5% from January to November 2023 compared to the same period in 2022. In December 2023, businesses had somewhat lower expectations for the performance of their enterprises. However, the index of business activity expectations was 45.7 compared to 42.1 in December 2022 [1; 2].

The activities of enterprises in wartime must take into account a large number of risks and unforeseen circumstances. Timely identification and assessment of risks is important in the process of financial forecasting of financial stability and development of an enterprise in today's extremely difficult conditions.

LITERATURE REVIEW

The essence, classification, identification and assessment of risks have received much attention in the domestic scientific field. In modern economic sources (S. Volosovych [3], M. Dyba [4], Richard A. Brealey, Stewart C. Myers [5], O. Panchenko [13], D. Dermenji [30], and others) there are different approaches to the interpretation of the concept of "risk" on the basis of such features as: the impact of uncertainty on the goals of an economic entity; the probability of events with negative consequences; deviation of actual results from expected ones, loss of resources. The classification features of risk are based on the nature and scope of occurrence, scale of impact, level of potential losses, degree of validity of decisions or actions under risk, duration of risk events, availability of risk insurance, type of risk, etc.

Richard A. Brealey and Stewart C. Myers consider financial risk in terms of the capital structure of the enterprise, emphasizing that the growth of financial leverage of the enterprise, on the one hand, increases the risk of the shareholder, and on the other hand, leads to an increase in the return on assets [5]. The study of risk management issues, including those related to the challenges of digitalization and the use of artificial intelligence technologies, is devoted to the works of Y. Dong [27], O. Bezditko [28], K. Lytvynova, L. Goral [31], A. Shapovalova, O. Kuzmenko [34], Xinzhe Xu [35], D. Pangestuti, A. Muktiyanto, I. Geraldina and D. Darmawan [36], S. Khan, G. Thomas [37].

I. Fedulova introduces the concept of risk identification as a component of the organization's risk management process. In her opinion, faceted, hierarchical and descriptive methods of classification should be used to identify the risks of an enterprise and recommendations for each of them are given for use in the process of forming a risk-based management system at an enterprise [6; 7].

The principles of accounting identification and management of financial risks were covered by M. Bodnar, N. Yershova [8], O. Fomina, S. Semenova, O. Moshkovska et al [9], O.Goncharenko [10], I. Vyhivska [19, 32], P. Atamas, O. Atamas, G. Kramarenko [11], H. Umantsiv, V. Novikov, O. Nikolayets [16], S. Holovatska, A. Kurak [12], Drobyazko S., Shapovalova A.,ot. [45] and many others.

O. Fomina, S. Semenova, O. Moshkovska, M. Bondar, and N. Yershova analyze the theoretical and practical aspects of management accounting of financial risks at the company level. The authors consider the process of management accounting of risks in the context of strategic management on the basis of an integrated approach to harmonizing the purpose, strategy and stages of management. [8;9].

Unlike previous studies, the article raises the issue of the relevance of accounting support for financial forecasting, taking into account the requirements for substantiating the going concern in the context of economic instability. Today, the identification and assessment of the impact on accounting information of external factors and related financial risks caused by the consequences of Russia's military aggression against Ukraine and other geopolitical challenges is a relevant area.

AIMS AND OBJECTIVES

The aim of the study is to substantiate approaches to the identification and assessment of financial risks in the accounting information system in order to forecast the continuity of the company's activities and development. To achieve this goal, the following tasks are envisaged:

- to reveal the role of relevance of accounting support for financial forecasting;
- to substantiate the importance of forecast information for disclosure of certain items of financial statements under conditions of uncertainty;

- to provide methodological approaches to the identification and assessment of financial risks in the accounting information system.

METHODS

The methodological basis of the study is formed by theoretical methods of scientific research, in particular, analysis, synthesis, comparison and classification to generalize approaches to the definition, classification and identification of financial risks in modern sources; empirical research methods - observation, expert evaluation and analysis of the results of a survey of financial forecasting practices of individual companies, which allowed to systematically and comprehensively consider the issue of identifying financial risks in the information system of an enterprise with metallurgical.

RESULTS

In a narrow sense, financial risk is defined as the possibility of losses as a result of transactions in the financial and credit sector. This approach distinguishes between the following types of financial risks: credit risk, deposit risk, investment risk, foreign exchange risk, currency risk, interest rate risk, etc. In a broad sense, financial risk means the probabilityof any unforeseen financial losses under uncertain circumstances. In other words, in addition to the above risks, financial risks also include the risk of a decrease in expected profit, the riskof a decrease in the established level of profitability, the risk of loss of profit (income), the riskof failure to fulfil various obligations, etc. This approach expands the understanding of financialrisk and links it to the activities of all business entities [13].

International Financial Reporting Standards, in particular, which regulate the methodological framework for accounting and measurement of financial instruments, set requirements for the identification and disclosure of financial risks. In particular, IFRS 7 "Financial Instruments: Disclosures" identifies three main types of risks: credit, market (interestrate, currency, inflation, political) and liquidity. According to this standard, companies mustdisclose information that enables users of financial statements to evaluate the nature and extent of risks arising from the use of the company's financial instruments at the reporting date[14].

IAS 1 "Presentation of Financial Statements" requires a description and explanation of the causes of risks, disclosure of risk management, information about contingent events and non-financial information in order to make a reliable assessment of the entity's position and toenable comparability of the financial statements with other companies [15].

Having analyzed the different types of financial risks, it is possible to combine them andcreate a typology based on a causal approach (Table 1).

Table 1. Classification of financial risks. *(Source: [4, 13, 16, 30, 31])*

Type of risk	Causes of occurrence	Implications for the company
Credit risk	Loss of solvency debtors to repay their obligations	The emergence of doubtful and uncollectible receivables in assets, which may lead to significant expenses
Liquidity risk, insolvency	Insufficient amount of liquid assets	Growth of liabilities and loss of financial stability
Inflation risk	Changes in the inflation rate	Decrease in the real value of monetary assets, impairment of revenues and profits
Interest rate risk	Changes in interest rates on loans and deposits and other financial instruments	Increase in interest expense Decrease in deposit income The need to pay additional amounts due to late or incomplete repayment of loans and borrowings
Investment risk	▪ Irrational portfolio of investment financial instruments; ▪ Change in fair value of financial investments; ▪ Financial difficulties or bankruptcy of the company in which the investment was made	Failure to achieve investment goals, reduced return on financial investments
Currency risk	Exchange rate fluctuations	Impact on import-export operations (increase in the cost of goods, logistics and other services, customs duties and other expenses on foreign currency transactions), revision of the pricing strategy of enterprises to maintain competitiveness, etc.
Event risk	Pandemic, military operations, changes in regulations	▪ Termination/interruption of operations; ▪ Loss of, damage to property; ▪ Increased tax costs, withdrawal of tax benefits

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Based on the results of a sample survey (based on a questionnaire of leading companiesin various industries), it can be concluded that most respondents identify business risks associated with the consequences of military aggression, such as reduced demand (73.5% of respondents), human resources (42.1%), logistics (52.6%), and financial risks - currency and inflation (57.9%).

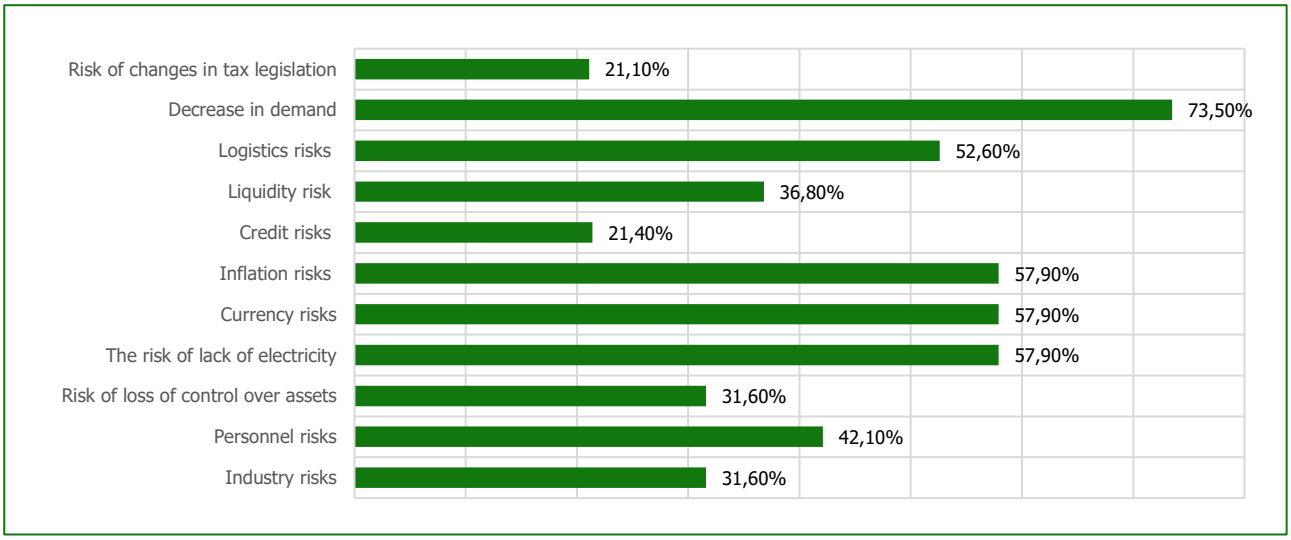

Figure 1. Types of risks identified by enterprises. *(Source: compiled based on our own sample survey)*

In addition, when asked how companies respond to economic uncertainty, in particular,caused by the war, 78.9% of respondents said they change their forecasting approaches and revise budgets, 52.6% resort to stricter receivables management and provisioning, and 15.8%apply loan portfolio optimization measures.

In order to assess the impact on financial risk forecasts, it is necessary to carry out a number of procedures: determine the breadth and reliability of the information required to identify and determine their level, study the impact of subjective and objective factors on the level of enterprise risk, choose methods for assessing the probability of risk events, determine the extent of possible losses in the event of a risk event, the permissible risk limits for certain types of activities (events, transactions); take into account the availability of risk managementmeasures at enterprises.

Identification *(Latin - identifico)* is the process of identification, equation, likening,recognition and quantitative and qualitative assessment of danger by possible foreseeable consequences [17]. Risk identification is the process of identifying, researching and describingrisks that may affect the achievement of the enterprise's goals within the framework of an integrated risk management system, which includes identifying sources of risks, researching events, their causes and possible consequences [18].

In order to create a comprehensive understanding of risks for the users of the financialstatements, it is important for a company to combine quantitative indicators (risk impact and specifics of occurrence in descriptive form; methods of risk assessment and management, etc.)with the presentation of various qualitative information on each specific risk at the end of the reporting period (assessment of impact at the end of the reporting period; additional information relevant to each type of risk, etc.). Only under such conditions is it possible to fullyassess the impact of financial risks on the company's operations. It is important to note that International Financial Reporting Standards (IFRS 7) allow for this information to be provided both directly within the financial statements and cross-referenced to specific comments by thecompany's management or even to a separate risk assessment report [20].

Financial statements are the information base for financial and accounting analysis and identification of trends in risk development for an enterprise. In particular, it forms an information resource for analyzing the adequacy of capital and assets, liquidity and solvency ofa business entity in order to maximize profit at minimum costs. Table 2 shows the financial statement items and accounts by which financial risks are identified.

Table 2. Identification of financial risks in the accounting and reportingsystem.

Type of financial risk	Account risk identifiers	Financial statement items for which risks are identified
Credit risk	▪ Growth in doubtful and bad debts; ▪ Provisioning for doubtful debts Increase in operating expenses	▪ Financial assets, including those carried at amortized cost (loans, debt securities and receivables); ▪ Financial assets at fair value (financial investments)
Currency risk	▪ Increase in expenses from exchange rate differences, liabilities in foreign currency ▪ Impairment of monetary assets	▪ Monetary assets and liabilities denominated in foreign currency; ▪ Costs of operations
Investment risk	▪ Decrease in the carrying amount of financial investments to related parties and those carried at fair value; ▪ Increase in expenses from changes in the value of financial instruments	▪ Long-term and current financial investments
Inflation risk	▪ Increase in operating expenses by relevant items	▪ Cost of production and sales; ▪ Assets and liabilities measured at fair value or present value (discounted)
Interest rate risk	▪ Increase in financial expenses on loans and borrowings, decrease in income on deposits	▪ Liabilities on bonds issued; ▪ Loans and borrowings with floating interest rates
Liquidity risk, insolvency	▪ Changes in liquidity ratios calculated on the basis of the balance sheet	▪ Financial assets; ▪ Financial liabilities by maturities based on contractual undiscounted payments (including future interest payments); ▪ Contingent liabilities; ▪ Provision
Risk of loss and impairment of assets due to military operations and uncertainty	▪ Write-off of destroyed property Impairment of inventories; ▪ Impairment of non-current assets; ▪ Impairment of assets measured at fair value	▪ Non-current assets Inventory; ▪ Financial investments

IFRS 9 "Financial Instruments" requires entities to measure impairment of financial assets, including trade receivables, using an expected credit loss model. In this regard, entities are required to recognize in their accounting records the losses they expect to incur on trade receivables at the time of recognition and to review their estimates of those losses until the receivables are due. The concept of expected credit losses (ECL) means that companies should consider how current and future economic conditions affect the amount of losses.

Expected credit losses are a probability-weighted estimate of credit losses (i.e., the present value of all cash flows that are not received) over the entire expected life of a financial instrument. This assessment process includes two stages: analysis of the level of credit risk and calculation of the amount of credit losses.

The credit risk level is analyzed by assessing its growth. Signs of a significant increase in credit risk include:

- significant changes in interest rates, exchange rates;
- significant change in the credit rating of a financial instrument or a borrower;
- existing or anticipated adverse changes in technological, commercial, financial or economic conditions that may affect the borrower (increase in unemployment, increase in interest rates, increase in inflation, changes in tax legislation);
- significant or expected changes in the borrower's operating results;
- significant change in the amount of collateral provided;
- overdue contractual payments by more than 30 days (rebuttable presumption) [34].

However, IFRS 9 does not set quantitative criteria for the concept of a "significant increase in credit risk". According to the recommendations given in the sources, a 1% change in credit risk is insignificant if the credit risk has increased from 30%

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to 31%. At the same time, an increase in credit risk by one point from 3% to 4% is significant. The definition of default and the procedure for assessing the risk of default should be set out in the company's accounting policy.

The calculation of credit losses is shown in Formula:

$$CL = \frac{CF0 - CF1}{(1+r)^t} \quad (1)$$

where CL - credit losses; CF 0 - cash flows under the contract; CF 1 - cash flows expected to be received; r- the discount rate; t- the period for which credit losses are calculated.

When estimating expected credit losses, an entity may not determine all possible scenarios. However, it must take into account the risk or likelihood of credit losses by considering the possibility of a credit loss occurring and the possibility of a credit loss not occurring, even if the possibility of a credit loss is remote [34].

Expected credit losses on trade receivables are measured using either a general or a simplified model. The simplified approach is recommended for trade receivables and lease receivables. According to this approach, credit losses are estimated based on historical experience and the classification of debtors into certain segments (region, product type, collateral, etc.). The provisioning matrix may include fixed rates depending on the maturity of the debt. For example, 1% of the debt amount if there is no delay, 2% if payment is overdue by up to 30 days, 3% if payment is overdue by 30 to 90 days, etc. The approaches and quantitative criteria for provisioning should be set out in the accounting policy [43].

In accordance with the Law of Ukraine "On Accounting and Financial Reporting" and the Guidelines for Preparing the Management Report, the non-financial information in the "Risks" section of the report should include information on the company's policy on managingoperational and financial risks: credit risks, liquidity risks, and market risks, describing their impact on the company's activities [21; 22].

In the notes to the financial statements, an entity should disclose the following information about credit risk:

- maximum credit risk exposure at the end of the reporting period;
- a description of credit-related collateral (including collateral) held as loanguarantees, disclosures of their financial effect, nature and carrying amount, and policies for the possible sale of illiquid assets;
- analysis of the credit quality of financial assets (except for overdue and amortized assets);
- analysis of overdue financial assets by maturity;
- analysis of financial assets that have been impaired (explain the reasons for impairment) [23].

Taking into account currency risks when forecasting future cash flows allows companies to effectively manage their financial resources and reduce possible losses due to changes in exchange rates. As noted above, the sensitivity of financial statement items to changes in foreign exchange rates can be calculated using appropriate analysis. This analysis helps determine how changes in exchange rates affect the company's financial performance. It is proposed to assess the sensitivity to changes in exchange rates in the following sequence:

1. Identification of foreign currency items in the financial statements, such as cash, foreign currency liabilities (foreign currency loans), and foreign currency income and expenses.
2. Identification of currency risks. It is necessary to assess the extent to which changes in the exchange rate may affect the value of identified currency positions. To do this, you need to analyze the sensitivity of items to different levels of exchange rate changes.
3. Selection of the exchange rate for analysis. The exchange rate whose change is important in the risk assessment is taken into account. Various options can be used, such as the most likely change, positive or negative scenario.
4. Determining the impact of exchange rate changes on cash flows, in particular for various financial statement items.
5. Calculating the percentage of the impact on the original indicator (e.g., profit, assets, expenses).
6. Performing a sensitivity analysis. A sensitivity analysis should be performed for different levels of exchange rate changes under different scenarios, for example, 5%, 10%, and 20% exchange rate changes.
7. Analysis of possible exchange rate scenarios, taking into account different economic conditions and scenarios.

In the course of the study, we analyzed the financial and non-financial statements of certain companies (JSC National Joint Stock Company Naftogaz of Ukraine, LLC Nova Poshta, PrJSC Kyivstar, JSC Ukrzaliznytsia, and others) for disclosure of

information on financial risks and their management policies. Most companies indicated that they determine currency risk byassessing currency risk based on the net balance sheet position and analyzing the sensitivity of (loss)/profit before tax to a reasonably possible change in the exchange rate, with all othervariables held constant. Liquidity risk is assessed by analyzing the maturities of assets and liabilities and calculating liquidity ratios and their deviations from regulatory requirements. Themaximum amount exposed to credit risk is the carrying amount of financial receivables, accruedincome and cash on bank accounts. The concentration of credit risk is assessed based on trade and other financial receivables from the three largest debtors (JSC Ukrposhta). The analysis of the credit quality of cash and cash equivalents, as well as cash collateral for participation inpublic tender procedures, is currently based on Fitch ratings (PrJSC Kyivstar, JSC National Joint Stock Company Naftogaz of Ukraine) [38-42].

The measurement and disclosure of certain reporting items is based on the forecast of future cash flows, in particular, in the process of determining the discounted value of certain financial instruments, which is particularly complicated in the context of martial law and uncertainty. To determine how the practice of financial forecasting has changed under the influence of military risks in the context of economic uncertainty, we conducted a survey of Ukrainian companies by means of a questionnaire.

According to the sample survey, the surveyed managers and CEOs noted that after thestart of the full-scale invasion, Ukrainian enterprises began to prepare financial forecasts moreoften. In wartime, when the situation can change radically and within short periods of time, businesses seek to adjust their expectations as often as possible in line with updated information. Previously, 42% of surveyed enterprises prepared forecasts every six months or less, but after February 24, 2022, only 16% of such enterprises remained (Figure 2). Increasingthe frequency of preparation makes it possible to fulfil the tasks of financial forecasting more effectively. The key areas of application of financial forecasting, according to the responses received, are support in the budgeting process, cash management and strategic planning, as well as assessing the ability to operate on a going concern basis.

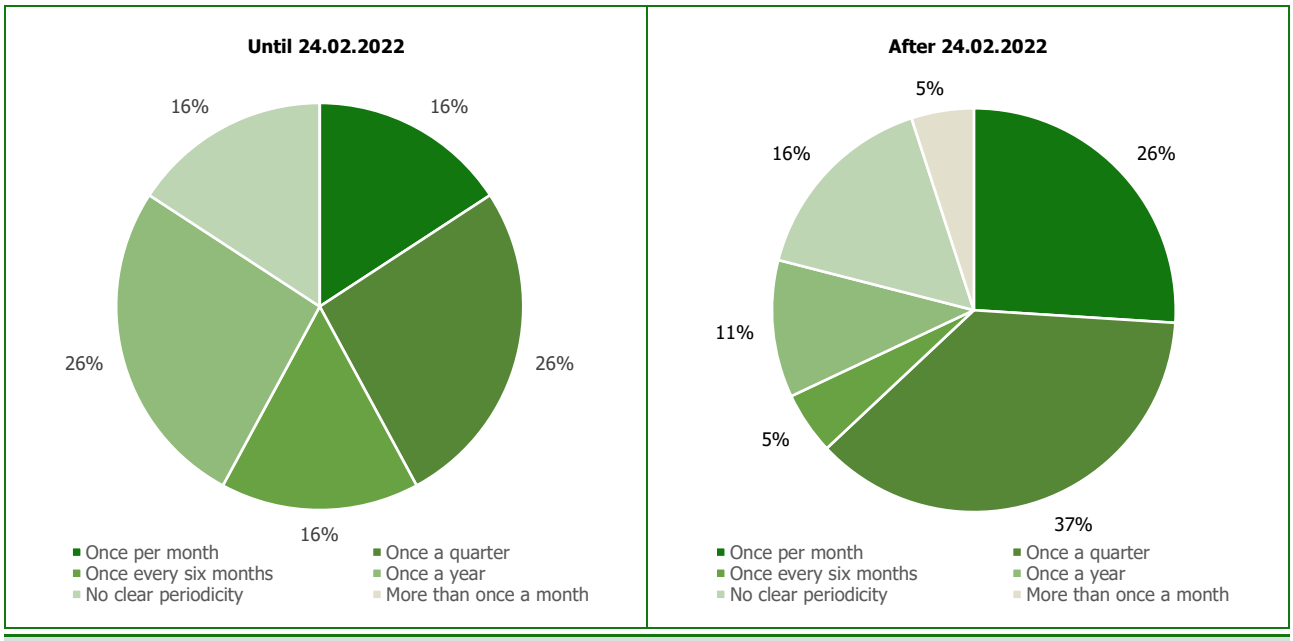

Figure 2. Changes in the frequency of financial forecasting at Ukrainian enterprises under the influence of the war. *(Source: compiled by the author based on his own sample survey)*

The accounting information system should assess the possible consequences of risks and facilitate the development of measures to minimize them. Today, accounting is used for risk management, thanks to the capabilities of methodological accounting and disclosure toolsthat provide a generalization of information flows based on various characteristics, thereby creating an information basis for assessing risk levels and trends, and determining solvency. Thus, accounting (financial, and management) is an information system and a tool for identifying,assessing and managing financial risks. Financial risk management methods are reflected in accounting in different ways, depending on the chosen strategy. For example, it is possible toaccept the risk by recording the transaction in full and the corresponding expenses arising from unfavorable circumstances. However, in most cases, companies resort to forming reserves tocover the consequences or insuring risks with the corresponding accounting treatment of insurance payments, insurance compensation, etc. When risks are trans-

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ferred to third parties (factoring operations), assignment transactions and commissions are recognized. Accounting standards provide for other measures to minimize risk, such as derivative financial instruments:hedging, options, futures, forwards, etc. [19, 32].

As noted by O. Fomina, S. Semenova and others, accounting can be a source of risk formation (e.g., due to incorrect judgments and estimates); a risk management function (through the creation of reserves and provisions, revaluation, hedging, etc.); provide the necessary information (management reporting for internal users, financial and integrated management reporting for internal users, financial and integrated reporting for external users)Risk-oriented strategic management accounting combines these aspects and doses.

Identifying and assessing the impact of risks on forecasts is an important element of financial forecasting in an uncertain environment. Ukrainian companies are facing unprecedented challenges that pose a significant financial threat. In addition to the decline in revenues caused by the out-migration of a large part of the population and the decline in demand, the following risk events affecting the business environment are worth highlighting:

1. Energy terror, which creates risks of losing power supply.
2. Increased competition.
3. Rising prices for fuel supply problems.
4. Disruption or destruction of supply chains.
5. Limitation of credit opportunities.
6. Increased costs for raw materials and energy resources.
7. Human resources risks (inability to get to the place of work, change of residence,mobilization, etc.).
8. The risk of losing control over its assets.

The most frequently identified risks at the surveyed enterprises are: reduced demand, currency risks, inflationary risks, electricity shortages, and logistics risks. At the same time, thegreatest impact on financial performance is caused by the risk of reduced demand, logistics risks, and the risk of losing control over their assets.

Having identified financial risks, companies choose the best ways to respond. The mostcommon response measures are (in order of importance):

- changes in the budget and financial forecasting;
- reducing costs;
- a stricter policy on accounts receivable;
- increase in prices for products/services;
- raising additional capital;
- optimization of the loan portfolio.

As we can see, companies respond to economic uncertainty, including war risks, primarily by adjusting their financial forecasts. At the same time, there are several dominant methods to take into account the impact of such risks in financial forecasting. In particular, companies make several forecasts of a financial indicator under different scenarios or forecasta range of values for a financial indicator, indicating the relevant risks that affect its value.

As noted earlier, the measurement and disclosure of certain reporting items are based onthe forecast of future cash flows, in particular, in the process of determining the discounted value of certain financial instruments, which is particularly difficult in the context of martial lawand uncertainty. In this regard, the discounted cash flows (DCF) calculation should be adjusted to account for the additional risks. DCF formula and some options to account for uncertainty in its components:

$$Value = \sum_{n=1}^{t} \frac{CF_n}{(1+r)^n} + \frac{TV_t}{(1+r)^t} \quad (2)$$

where: CF - Cash flows; it should be adjusted by additional income or expenses attributable to risk occurrence; also, it is possible to reflect the various outcomes by projecting several future scenarios and then producing the probability-weighted cash flows; r - cost or capital (usually WACC or a weighted average cost of capital); could be adjusted by a possible increase in the cost of equity (due to rising in equity risk-free rate/risk premium/company-specific risk) or cost of debt (due to the eventual increase in interest rates resulting from the combined effect of changing market conditions); n - time

periods, from period 1 to t; TV - terminal value. Terminal value (TV) is the value of an asset, business, or project beyond the forecasted period when future cash flows can be estimated.

The risk premium depends on external circumstances, in particular, military operations in the country. For example, the war in Ukraine may have a significant impact on the risk premium for certain companies.

In particular, it is recommended to adjust the discount rate for such risk premiums:

1. A financial risk premium that takes into account potential difficulties in financing the entity's working capital or capital expenditure.
2. Country risk premium, which takes into account the additional risk associated with generating and receiving cash flows in a particular country.
3. Forecasting risk premium, which takes into account the greater uncertainty in making economic and financial forecasts for the near term due to the difficulty of predicting the extent of the impact of war (if not already included in the projected cash flows) [44].

Taking into account currency risks when forecasting future cash flows allows companies to effectively manage their financial resources and reduce possible losses due to changes in exchange rates. As noted above, the sensitivity of financial statement items to changes in foreign exchange rates can be calculated using appropriate analysis. This analysishelps determine how changes in exchange rates affect the company's financial performance. It is advisable to assess the sensitivity under different scenarios, for example, 5%, 10%, and 20%changes in the exchange rate, as well as different economic conditions and scenarios.

Risk identification and assessment are interrelated. Sometimes these processes go in two opposite directions - from assessment to identification and vice versa. In the first case, there are already recorded losses, so it is necessary to identify the causes of their occurrence.In the second case, based on the analysis of the system, possible risks and possibleconsequences of their actions are identified.

In the process of risk assessment, it is important to develop a system of methods and indicators for assessing the level of risk. Such a system should be based on certain fundamentalprinciples: based on the theory of probability, since risk is a probabilistic category; define risk indicators of different content and form that would allow for the best possible consideration ofall possible scenarios. Risk indicators include the following: the probability of losses; the absolute value of possible losses; integral risk indicators; comparative indicators of differentrisk levels, etc. Table 3 summarizes the most common risk assessment methods.

Table 3. Content characteristics of risk assessment methods. *(Source: [24; 30])*

Method name	The essence of the method
Statistical methods (assessment of the probability of execution, analysis of the probable distribution of the payment flow, decision tree, risk simulation, Risk Metrics technology)	Extrapolation of trends in the change of the studied indicator over a certain period of time in the past, i.e., the results of previous analyses of the impact of financial risks
Scenario analysis	This method involves identifying several separate scenarios
Sensitivity analysis	An estimate of the change in the resulting forecast indicator due to a change in the value of a certain parameter while keeping other parameters at the same level
Analytical methods	Risk assessment for investment and innovation projects of indicators with further analysis of deviations of the calculated values of these indicators from the limit or recommended values
Expert methods (method Delphi, ranking method, rating method, etc.)	Based on an expert survey and subsequent analysis of the results, which are the only source of information
Rating method of evaluation	Based on the calculation of the final rating based on the definition of the necessary indicators, the scale for assessing their weight and values
Normative method	The calculated ratios are compared with the standard values and risk levels are determined ("low", "medium", "high")
The method of analogs	It involves comparing the performance of similar companies in the relevant conditions

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Financial forecasting taking into account the risks of today's uncertainty allow providing additional information to users of the forecast, which enhances its reliability and flexibility. The main elements of this approach are a broad set of inputs, a quantitative model, and a set of model outputs. The input data includes key financial indicators, macro and micro risk drivers. The forecasting model should use quantitative methods to combine the assessment of risk drivers with the relevant components of the "base" scenario of the financial forecast. The set of model output values should allow to assess the uncertainty in financial performance forecasts, show the potential for growth or decline, and understand the key risk factors. The financial forecasting process takes into account whether the company applies measures to mitigate the impact of risks on future activities, including those based on accounting instruments.

The quantitative methods of risk assessment define the probability of a risk and assess the effect on forecasted metrics which helps to manage risks and take effective measures.

Probability (P(X)) can be estimated in different ways. In finance, the probability of an event is often estimated as a relative frequency of occurrence based on historical data, also known as empirical probability. When the event is rare, the relationships are changing or too complex, the use of empirical probability is unreliable or we may not have such probability at all. In such cases, one can produce a subjective probability based on personal judgment.

The most common way of applying the probability concept to forecasting is by calculating the expected value of any finance metric or ratio, or 'random variable' in general terms. The expected value of a random variable (E(X)) is the probability-weighted average of the possible outcomes of the random variable and can be calculated as:

$$EX{=}i{=}1nPXi{*}Xi(X) = \sum_{i=1}^{n} P(X_i) * X_i \quad (3)$$

where X_i *is an outcome of the random variable* X*.*

The expected value measures the outcome, which is the average value and is a generalized quantitative characteristic that does not allow a decision to be made in favour of any option. To make a final decision, it is necessary to measure the fluctuations in the possible outcome and the possible deviations from the mean. To determine these fluctuations, the variance or standard deviation is calculated.

The variance of a random variable is the expected value of squared deviations from the random variable's expected value:

$$\sigma^2(X) = \sum_{i=1}^{n}(X_i - E(X))^2 * P(X_i) \quad (4)$$

Variance in economics measures the average fluctuation of a parameter around its expected value. It serves as an indicator of risk by showing the dispersion of different outcomes. However, it is often useful to understand the worst loss that might be reasonably expected from an asset over a specific time period. Value at Risk (VaR) modelling determines the extent of losses expected over a specified time period (for example, a day or a year) at a given level of probability. For example: we specify a one-year time period and a level of probability of 0.05; if VaR equaled USD 10 million for an asset, there would be a 0.05 probability that the asset would lose USD 10 million or more in a year. This metric is often used by investment firms and commercial banks.

However, VaR is criticized for not indicating how large or frequent a loss might be when exceeding the VaR number. Conditional VaR, also known as 'expected shortfall', is an alternative risk assessment method that provides an average of the losses expected beyond the VaR at a given confidence level.

The modern practice of financial forecasting is characterized by the introductionof increasingly complex quantitative methods, in particular those that integrate risk and uncertainty assessment into the forecasting process and results. Risk-based financial forecasting should be conducted on the following principles [25]:

- assessing the range of forecast values;
- use of multifactor assessment of parameter sensitivity;
- include the impact of the main risk drivers on cash flows to form a distribution of values for each period;
- relate the impact of uncertainty in cash flows to changes in balance sheetindicators and key financial ratios.

The recommendations of S. Semenova et al. consider an effectivemethodology for building a risk matrix that allows visualizing the cost expression of risk or the scale of its impact and the probability of occurrence. At the same time, those risks that are potentially dangerous can be identified. The authors propose to take into account the levels of materiality recommended for disclosure in the financial statements for the cost measurement of risk in relation to the object of strategic

management accounting. In particular, for assets, liabilities and equity - up to 3% of the respective group, for income and expenses - 0.2% of the total amount of income and expenses; or 2% of the amount of net profit. As noted, the use of a risk matrix can be a tool for modelling the parameters of a strategic plan or budget under various scenarios [9; 26].

DISCUSSION

Based on the analysis of studies on the role of accounting in the process of identifying and managing risks for financial forecasting, it should be noted that most of them focus on the reflection of certain methods of risk neutralization in the accounting system. According to I. Vygivska, risk in accounting has two forms of interpretation:

1. Risk cause (a conditional or real fact of economic activity that results in risk consequences in the future).
2. Risk-consequence (the actual fact of economic activity resulting from the occurrence of a risk and reflected in accounting) [19].

Golovatska S. I. and Kurak A. I. draw attention to the importance of the formation and accounting of provisions for future expenses and payments in enterprise risk management [12]. Fomina, O., Semenova, S., Moshkovska, O., Yevdoshchak, V., & Manachynska, Y. provide methodological tools for management accounting for assessing and reflecting risks, in particular, using a risk matrix based on risk assessments for budgeting under different scenarios and generating internal reporting [9].

Research is being conducted on the issues of taking into account the risks of uncertainty in forecasting future cash flows in order to determine the fair value of individual accounting items at the reporting date (H. Umantsiv, I. Shushakova, O. Minyaylo, T. Shcherbakova, V. Khrustaleva) [33]. This is essential for the use of accounting information for operational and strategic planning of the company's activities.

While acknowledging the existing developments in the study of financial risks, in this article we focus on understanding the interplay between accounting and financial forecasting (accounting information for forecasting and the use of forecast indicators in management accounting and disclosures in financial statements) in the context of ensuring the continuity of an enterprise's operations and the need for forward-looking disclosures in the modern corporate reporting system. In cases where forward-looking estimates are material to the financial statements, they must be thoroughly justified and disclosed in the company's financial statements, which places requirements on their reliability and relevance.

This is particularly relevant for the valuation of financial instruments, in particular, financial assets and liabilities accounted for at discounted value, which involves estimating projected cash flows, etc. Accounting estimates are required for credit, interest, currency, inflation and other risks for which collateral is formed; impairment and impairment of assets.

CONCLUSIONS

Thus, a high degree of relevance of information in the financial statements is key to making forecasts and makes it possible to confirm or adjust previous forecasts. In a time of war, the reliability of accounting information is affected by many factors that cause financial risks, which require appropriate consideration in disclosures. Forward-looking information is one of the sources of assessing a company's ability to continue as a going concern. In this regard, the issues of accounting identification and management policy of such risks are particularly relevant.

International Financial Reporting Standards attach great importance to the identification and disclosure of financial risks in order to make a reliable assessment of the entity's condition and compare the financial statements of different companies The article analyzes the requirements of IFRS for taking into account financial risks in the valuation of financial instruments and conducts a selective study of the practice of accounting for such risks by leading companies. The analysis has shown that most of the recommendations are provided for financial institutions, but the challenges of today lead to the need to take into account risks in the accounting system of non-financial sector companies.

The article systematizes approaches to the accounting identification of financial risks, the mechanism of their consideration in forecasting future cash flows and assessing credit losses. Today, the issues of a more in-depth detailing of the methodological tools for assessing such risks in accounting and practical implementation for use in the process of financial forecasting remain relevant.

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ADDITIONAL INFORMATION

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The Authors declare that there is no conflict of interest.

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ІДЕНТИФІКАЦІЯ ФІНАНСОВИХ РИЗИКІВ В ОБЛІКОВІЙ ІНФОРМАЦІЙНІЙ СИСТЕМІ: ПРОГНОСТИЧНИЙ КОНТЕКСТ

Метою дослідження є висвітлення підходів до ідентифікації та оцінки фінансових ризиків в обліковій інформаційній системі в контексті прогнозування розвитку компанії.

Обґрунтоване положення про те, що здійснення прогнозування фінансової стійкості підприємства в умовах глобальних викликів і воєнного стану є доволі складним, оскільки зазначені несприятливі чинники формують обставини, що обумовлюють не тільки скорочення обсягів активної діяльності підприємства, а й потенційну повну його зупинку та безповоротну втрату майна чи ресурсів. Форс-мажорні обставини характеризуються непередбачуваністю та неможливістю прогнозування, що ускладнює процес аналітичного передбачення.

У статті зроблено висновок про те, що з метою оцінки впливу на прогнозування фінансових ризиків необхідним є проведення ряду процедур, серед яких ідентифікація окремих видів ризиків, оцінка спектру й вірогідності інформації, необхідної для визначення їх рівня, дослідження дії об'єктивних і суб'єктивних факторів, що впливають на рівень ризиків підприємства, вибір і використання методів оцінки ймовірності настання ризикованої події за окремими видами ризиків, визначення розміру можливих втрат при настанні ризикованої події, установлення гранично допустимого рівня ризиків за окремими видами діяльності, урахування наявності заходів управління ризиками на підприємстві.

За результатами дослідження зроблено висновки про те, що після початку повномасштабного вторгнення українські підприємства розпочали частіше готувати фінансові прогнози. В умовах воєнного стану, коли ситуація може змінюватися радикально й протягом коротких проміжків часу, підприємства прагнуть якомога частіше корегувати свої очікування відповідно до оновленої інформації.

Ключові слова: фінансові ризики, фінансове прогнозування, облікова інформація, невизначеність, воєнний стан

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