THE EVALUATION OF METHODOLOGICAL ASPECTS OF THE TRADE ENTERPRISES FINANCIAL STABILITY ANALYSIS

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Abstract. Modern world trade trends put forward additional requirements for the trade enterprises to ensure efficient functioning and achieve a high level of competition. Considering this, it becomes actual to form and implement substantiated organizational and economic mechanism of financial stability analysis. The aim of the article is to substantiate the methodical aspects of the trade enterprises financial stability analysis in order to ensure the improvement of the economic assessment mechanism of its level. Research methods: generalization, analysis and synthesis. Key findings: the existing trends in the usage of the trade enterprises analytical apparatus are indicated the need for modernization of many methodical aspects of financial stability analysis. The author justified that it is advisable to adapt and implement in practice the structures of performance indicators in specific activity areas and structural divisions, to determine their impact significance on the integral indicator of the trade enterprise effectiveness.

Prerequisites for improvement of the trade enterprises financial stability analysis system are revealed. Based on the scientific approaches evaluation the author developed methodological provisions of the complex analysis of the trade enterprises financial stability and highlighted the conceptual directions of the development and adaptation of existing methods to the real economy conditions. The main problems of ensuring the trade enterprises financial stability are revealed and ways of their solution are suggested. The theoretical provisions and methodological approaches discussed in the article can be used as the specific recommendations on the assessment of the trade enterprises financial stability and to develop an integrated model of such assessment. The scientific and methodological recommendations of the trade enterprises financial stability assessment that will contribute to the economic mechanism improvement for provision are proposed.

Keywords: financial stability, management, analysis, evaluation, trade enterprise.

JEL Classifications: G 320; L 810.

1. Introduction

The economic crisis, political instability, unjustified reforms of the particular sectors of the economy has become the important reasons for the deterioration of the financial condition of enterprises. Business entities operate in a constantly changing environment. Activities of enterprises are negatively affected by the lack of the sufficient level of their financial stability which is the basis for the normal functioning and increase of economic potential. The effective financial management assumes performing of the thorough analysis that allows determining the impact of any risks and predicting the level
of profitability of capital, using modern quantitative methods of the analytical research. In this regard, the priority of studying financial condition of an enterprise through a comprehensive substantiation of indicators that determine it is substantially increased and this makes it relevant to refine the system of such indicators. Therefore, the question of assessing financial stability of trade enterprises as a significant sector of any national economy and improvement of the existing methodological approaches to assess it is relevant and important.

2. Essence of financial stability of an enterprise

Financial stability implies the ability of an enterprise to maintain a predetermined operating mode in the context of the most important financial and economic indicators. It can be considered as a resultant category which characterizes the level of an enterprise’s sustainability, its ability to reach stable technical and economic indicators and effectively adapt to changes of the external and internal environment. The level of financial stability also affects an enterprise’s opportunities. Determining the boundaries of financial stability is one of the most important economic problems because insufficient financial stability can lead to insolvency of an enterprise and lack of means for the production development and excessive financial stability will hinder development, creating redundant stock and reserves. Financial stability should be characterized by such a state of financial resources that meet the requirements of the market, and their distribution and usage should ensure the development of an enterprise on the basis of growth of its profit and capital while maintaining solvency at the acceptable level of risk [1].

In modern theory and practice it is considered that an objective evaluation of financial condition and financial stability of an enterprise allows the governing body to create an optimal ratio of productive assets, to balance capital structure, to establish the most rational usage of available resources, while increasing an enterprise’s investment attractiveness and market share. That is why numerous authors substantiate the expediency of interrelated evaluation of financial condition and financial stability of an enterprise, adhering to the position that “... in today’s business environment, financial stability should be considered as a comprehensive category that reflects the level of financial condition of an enterprise, the ability to ensure the development of its activities” [2].

Analysis of economic literature has shown that depending on the context of the study, financial stability is understood as the ability of an enterprise to function and develop while preserving its ability to self-sufficiency within the acceptable level of risk. The financial stability of an enterprise is ensured by a high share of equity capital in the total amount of its financial assets. It shows the level of riskiness of an enterprise’s activities and its dependency on the external resources of financing.

Hence, stable financial condition of an enterprise is the result of effective management of a set of factors that affect the results of an enterprise’s activities. In order to
ensure financial stability an enterprise must have a flexible capital structure and organize
its movement in such a way as to ensure a continuous excess of revenues over expenses,
solvency and conditions for normal functioning.

Therefore, evaluation of financial stability is an objective prerequisite for reasonable
planning and rational usage of financial resources.

The objectives of the analysis of financial stability of enterprises are: analysis of the
structure of sources of financing of an enterprise, assessment of the degree of an enter-
prise’s dependency on short-term liabilities, analysis of financial stability on the basis
of analysis of sources of financing of non-current and current assets of an enterprise,
analysis of the intensity of usage of borrowed funds, assessment of the level of long-term
sustainability of an enterprise without loans, reconciliation of receivables and payables,
estimation of the possibility of loss and recovery of solvency of an enterprise, determina-
tion of financial stability reserve of an enterprise.


The methodology for financial stability evaluation has changed significantly over the
past 25 years in Ukraine. Theory and practice of the socialist planned economy did not
operate the concept of “financial stability”, but proceeded from the need to support the
“proper combination of own and borrowed funds” [3], which was determined as the
tasks of strengthening the economic calculation and the ability of the bank to systemati-
cally influence economic activities. To a large extent, this was realized when lending
for the sale of material assets and wage expenses on the terms of share participation of
a bank loan in the amount of 50% of the norm for inventory, goods-in-process and fin-
ished goods. At that time, as it is known, the state while creating an enterprise provided
at its disposal and assigned to it in the form of a statutory fund a part of state property in
the form of fixed and current capital. The allocation of own circulating assets for state-
owned enterprises was conditional since all of their funds belonged to the state. The
maintenance of own circulating assets was the most important criterion for evaluation
financial condition of an enterprise.

In foreign practice, the term “financial dependency” [4], “the maximum permissible
share of borrowed funds” [5], “financial leverage” [6], “capital structure” [7]) are used
more often. Thus, evaluating financial sustainability, first of all, it is thought of the size of
the maximum allowable share of borrowed funds: “When a company borrows money, it
promises to make a series of fixed payments. Since shareholders receive what remains after
payday lenders, they say that a debt leads to financial dependency (financial leverage)” [4].

Consequently, assessment of financial stability of an enterprise involves studying key
parameters and indicators that objectively characterize its financial condition. The re-
results of the analysis reveal the existing problems and attract to them attention of manage-
ment or owners.
Some researchers [8, 9] suggest assessing financial stability of an enterprise on the basis of calculating the system of absolute (generalizing) and relative (partial) indicators. Indicators that characterize the level of provision of current assets of an enterprise by the sources of their formation are absolute general indicators of its financial stability.

Absolute indicators allow determining what sources of funds are used and to what extent to cover inventory. Economic activities of an enterprise are associated with a constant movement of inventory, on account of usage of own or borrowed funds, the level of which determines optimality of formation of these assets.

The characteristics of financial stability in the long run on the basis of calculation of absolute indicators give only a general appraisal. The majority of scholars [8, 9, 10] tend to think that particular importance in evaluating financial stability of an enterprise belongs to relative (partial) indicators. The respective analysis is carried out by calculation and comparing the coefficients with their normative values, as well as comparing their changes in dynamics. The degree of dependency of an enterprise on external investors and creditors is characterized by relative indicators of financial stability. Owners of an enterprise are interested in maximizing own capital and minimizing borrowed funds in the total amount of financial sources. Lenders also assess financial stability based on equity, its structure, its position on solvency and future financial stability.

Relative indicators of financial stability enable to assess the degree of protection of investors and creditors since they characterize the ability of an enterprise to timely payback obligations to partners.


The extended list of approaches to assess financial stability of an enterprise is given in Table 1.

<table>
<thead>
<tr>
<th>Name of an approach</th>
<th>Description</th>
<th>Result of evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregated approach</td>
<td>analysis of absolute indicators of financial stability</td>
<td>determination of financial stability type</td>
</tr>
<tr>
<td>Coefficient approach</td>
<td>analysis of relative indicators of financial stability and their comparison with normative values</td>
<td>definition of the real financial condition, weak and strong sides of an enterprise</td>
</tr>
<tr>
<td>Marginal approach</td>
<td>calculation of the profitability threshold by dividing the costs into fixed and variables and applying the margin income indicator</td>
<td>determination of financial stability reserve</td>
</tr>
<tr>
<td>Scoring approach</td>
<td>adding liquidity ratios to indicators in a score evaluation of financial stability</td>
<td>determination of a type of financial stability</td>
</tr>
<tr>
<td>Balance approach</td>
<td>Usage of the balance model</td>
<td>assessment of financial stability based on the degree of coverage of inventories and fixed assets by sources of financing</td>
</tr>
<tr>
<td>Name of an approach</td>
<td>Description</td>
<td>Result of evaluation</td>
</tr>
<tr>
<td>---------------------</td>
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</tr>
<tr>
<td>Integral approach</td>
<td>integral assessment of the degree of financial stability using a generalized indicator of financial stability change</td>
<td>determining the degree of financial stability and identifying its dynamics</td>
</tr>
<tr>
<td>Factor approach</td>
<td>conducting a factor analysis of financial stability, which includes the construction of a chain of indicators and an analysis of their rate of growth</td>
<td>determination of the range of indicators which will allow to formulate a conclusion about financial condition of an enterprise</td>
</tr>
<tr>
<td>Matrix approach</td>
<td>compiling matrix balances</td>
<td>calculation of the structure and determination of the quality of the assets of the balance sheet and the adequacy of the sources of their financing</td>
</tr>
</tbody>
</table>

Resource: [12]

Proceeding from this, the key task of assessing financial stability of enterprises is to determine the degree of dependency of an enterprise on borrowed capital. The scientific literature comprehensively covers the coefficients that are used to evaluate financial stability. However, according to different authors coefficients have different characteristics of classification which they refer to with the same content – different names are listed without a specific clarification of the type of indicators, coefficients are given with their normative values.

Therefore, for usage of coefficients to evaluate financial stability of trade enterprises there were established a well-founded system of indicators and their normative values (Table 2).

<table>
<thead>
<tr>
<th>Indicators of financial stability</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator of economic development</td>
<td>$I_{ED} &gt; 0$</td>
</tr>
<tr>
<td>Indicator of financial independency</td>
<td>$0,2 &lt; I_{FI} &lt; 1$</td>
</tr>
<tr>
<td>Indicator of business activity</td>
<td>$I_{BA} &gt; 0$</td>
</tr>
<tr>
<td>Indicator of concentration of financial resources</td>
<td>$I_{CFR} &gt; 0$</td>
</tr>
<tr>
<td>Indicator of profitability</td>
<td>$I_{P} &gt; 0,2$</td>
</tr>
<tr>
<td>Indicator of financial potential</td>
<td>$0 &lt; I_{FP} &lt; 1$</td>
</tr>
<tr>
<td>Indicator of solvency</td>
<td>$I_{S} &gt; 0$</td>
</tr>
<tr>
<td>Financial strength indicator</td>
<td>$I_{F} &gt; 0$</td>
</tr>
<tr>
<td>Indicator of cash flow provision</td>
<td>$I_{GP} &gt; 0$</td>
</tr>
<tr>
<td>Indicator of market value</td>
<td>$I_{RV} &gt; 0$</td>
</tr>
</tbody>
</table>

Resource: Developed by authors

The indicators in the table systematically characterize the coefficients that determine them in terms of ensuring the financial stability of a trade enterprise.
In the accounting and analytical practice of the economically developed countries, the coefficient of sustainable economic development of enterprises and “Model of sustainable development” is widely used, and they characterize the first indicator $I_{ED}$.

\[ I_{ED} = (K_1, K_2, K_3), \]

where,

\[ K_1 = \frac{NP - D}{E} \]

where, \( NP \) – net profit, \( D \) – dividends, \( E \) – equity.

Namely, increase in own capital at the expense of net profit (balance sheet sections reserve capital and retained earnings) is a necessary prerequisite or ground for financial stability of an enterprise, its sustainable economic development. An increase in equity increases the credibility of the bank in case of need for a loan.

Foreign and domestic scientists perceive the pace of economic growth identical to the growth rates of products sales (in American publications - the turnover of a company) or with profits of an enterprise [13]. Obviously, in practice, it is not possible to achieve the maximum value of products sales and profit at the same time, but ensuring intermetrical growth (for example, according to the “golden rule of the economy”) is absolutely achievable, at least for a certain period of time. Each of these indicators is necessary, but not sufficient indicator of growth of an enterprise as an integral characteristic of its activities, therefore it is expedient to estimate stable economic growth with the system of corresponding indicators. In addition, usage of models should take into account the influence of environmental factors.

Significant interest in this regard is the paper of R. C. Higgins, who proved that achieving a given growth rate depends on the developed financial policy. This concept is called “A Model Of Optimal Growth Strategy”. In his researches [13] R. Higgins suggests to calculate the rate of sustainability of economic growth ($K_2$) using the following formula:

\[ K_2 = K_{NER} \times K_R, \]

where \( K_{npk} \) – coefficient of net equity return which is calculated as ratio of net profit to equity; \( K_R \) – coefficient of accumulation which is calculated as ratio of reinvested (retained) earnings to the total net profit.

But it should be noted that the application of the Higgins model implies that an enterprise operates in relatively stable conditions of the internal and external environment. Since external conditions change too quickly it is needed to focus on dynamic growth models.
Further researches proved the dependency of stable growth rates of products sales on the following factors: coefficient of product profitability, coefficient of accumulation, coefficient of turnover of assets, coefficient of financial dependency. To determine the influence of factors, the classical Higgins steady growth model can be presented as a multifactorial model:

\[ K_3 = K_{\text{NER}} \times K_R \times K_{\text{AT}} \times K_{\text{FD}}, \]

where \( K_{\text{AT}} \) – asset turnover coefficient; \( K_{\text{FD}} \) – coefficient of financial dependency.

The first and third factors characterize respectively the efficiency of an enterprise’s business and efficiency of usage of all available resources, regardless of sources of their attraction. The second factor characterizes the adopted dividend policy, which is to optimize the proportions of the distribution of net income for the part intended for consumption (payment of income to participants (owners), and the part that is capitalized (reinvested in the development), in order to maximize the market value of an enterprise. The fourth factor is the coefficient of financial dependency which characterizes the ratio between assets and equity, that is, shows how much of the total value of the property (assets) falls to 1 currency unit of own funds (equity capital) of an enterprise. Consequently, the first and third factors characterize the operating strategy of an enterprise, and the other two concern the financing strategy of an enterprise.

The results of the analysis of economic growth suitability enable assessment of the rate at which, on average, the equity of an enterprise increases at the expense of profit from economic activity (part of the net profit, which leads to industrial development).

The growth of such indicator in the dynamics indicates the increase in the share of equity capital generated by the retained earnings within the reporting period, which is the cheapest source of financing for the development of an enterprise.

The indicator of financial independency of an enterprise includes two coefficients that characterize it more completely:

\[ I_{\text{FI}} = (K_4, K_5), \]

where \( K_4 \) – share of own funds in the total amount of all funds of an enterprise; \( K_5 \), – the ratio of borrowed and own funds which characterize how many borrowed funds is attracted by an enterprise to 1 UAH invested in assets of own funds.

Business activity of an enterprise is the most completely provided by the normative values of the following coefficients:

\[ I_{\text{BA}} = (K_6, K_7, K_8), \]

\( K_6 \), – turnover ratio of capital which characterizes the rate of turnover of all means of an enterprise;
K_7 – coefficient of equity turnover which shows how much net sales revenue per unit of equity;
K_8 – coefficient of turnover of the borrowed capital which characterizes the period for which net proceeds from the sale of products will cover the borrowed capital.

Ensuring the concentration of financial resources of an enterprise most fully provides the following indicator:

\[ I_{CFR} = (K_9, K_{10}, K_{11}), \]

where
\( K_9 \) – coefficient of provision of assets by own working capital which characterizes the presence of an enterprise’s own working capital, necessary for its financial stability;
\( K_{10} \) – coefficient of maneuverability of own circulating assets which shows the ability of an enterprise to maintain the level of its working capital and replenish working capital at the expense of its own sources;
\( K_{11} \) – coefficient of the concentration of the attracted capital which shows the share of borrowed capital in its total amount.

Provision of a such a capacious indicator as the profitability of an enterprise is determined by the coefficients:

\[ I_p = (K_{12}, K_{13}, K_{14}, K_{15}), \]

\( K_{12} \) – the coefficient of economic profitability which characterizes the level of net profit generated by all the assets of an enterprise in its use;
\( K_{13} \) – the coefficient of financial profitability which shows the level of return on equity capital invested in an enterprise;
\( K_{14} \) – the coefficient of commercial profitability which characterizes the net profit attributable to the unit of proceeds from products sales;
\( K_{15} \) – the coefficient of profitability of operational activity which shows how much profit from operating activities accounted for one unit of proceeds from products sales.

The indicator of the level of financial potential (\( I_{FP} \)) is defined as the ratio of the annual cash flow of an enterprise to the volume of production in the reported year (\( K_{16} \)). This coefficient is calculated by the formula:

\[ K_{16} = \frac{P+A}{V_p} \]

where \( P \) – net profit obtained in the reported year, currency unit;
\( A \) – amortisation flow of an enterprise in the reported year, currency unit;
\( V_p \) – volume of the produced products in the reported year.
An enterprise solvency ratio \( I_5 \) takes into account the following ratios:

\[
I_5 = (K_{17}, K_{18}, K_{19}),
\]

where \( K_{17} \) – the coefficient of the maneuverability of assets which shows how much of working capital follows per unit of irreversible capital;

\( K_{18} \) – total ratio of receivables and payables which shows the ability to settle accounts with creditors at the expense of debtors;

\( K_{19} \) – share of inventories in current assets which characterizes the share of stocks in the total amount of working capital of the enterprise.

The Financial Strength Index \( (I_{SI}) \) represents the difference between the actual level of sales and their critical volume, which determines the amount at which the volume of sales proceeds is reduced, and thus an enterprise suffers losses.

It is defined in terms of money as the difference between the expected and equilibrium sales volume:

\[
K_{20} = V_{ex} - V_{cr},
\]

where \( V_{ex} \) – expected sales volume;

\( V_{cr} \) – critical sales volume.

The absence of a real internal threat of bankruptcy drops sharply when the net profit is confirmed by a net positive cash flow, that is, the profit will be balanced against the cash flow balance.

\[
I_{GP} = (K_{21}, K_{22}, K_{23}, K_{24}),
\]

where \( K_{21} \) – coefficient of sufficiency of net cash flow of an enterprise in the considered period;

\( K_{22} \) – coefficient of liquidity of the cash flow of an enterprise;

\( K_{23} \) – coefficient of cash flow efficiency;

\( K_{24} \) – coefficient of reinvestment of net cash flow.

Quite often the real value of trade enterprise is significantly less than its market value. The developed stock market of foreign countries creates an opportunity to increase the value of an enterprise at the expense of goodwill, while enterprises do not have such opportunity.

The analysis of market value is carried out by means of calculation and analysis of the following indicator:

\[
I_{RV} = (K_{25}, K_{26}, K_{27})
\]

\( K_{25} \) – profitability of shares (Price – earnings ratio) – determines which part of the net profit is received per one issued share and is calculated by dividing the net profit by the number of issued shares;
$K_{26}$ – coefficient of “price / cash flow” – determines profitability of the stock on cash flows that pass through an enterprise in its activities, per share;

$K_{27}$ – coefficient of the market price (market – to – book value) – characterizes to what extent the market price of the stock exceeds its book value and is determined by the corresponding ratio.

The stochastic nature of the economy leads to usage as template values of the suggested indicators their lower margin. Using the normative values of indicators from the table 2 there were structured the following levels of financial stability: high, standard, low and depicted in the table 3 (table 3).

<table>
<thead>
<tr>
<th>Influence of the external financial environment</th>
<th>Ensuring financial stability of the enterprise</th>
<th>Standard (value of indicators in the range of 0,5…1)</th>
<th>Low (value of indicators in the range of 0,1…0,5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>1. Favorable situation, the negative impact of the environment is minimal. Sustainable growth strategy</td>
<td>2. The normal stability of the financial system of an enterprise providing the positive influence of the external environment allows to implement the strategy of sustainable growth.</td>
<td>3. The favorable external situation creates opportunities for restoring financial stability of an enterprise. A strategy to maintain financial stability.</td>
</tr>
<tr>
<td>Neutral</td>
<td>4. An enterprise with a stable financial system. Provided that there is no significant impact of external factors, it can implement a strategy of sustainable growth.</td>
<td>5. The external environment does not significantly affect the financial stability of an enterprise. In such a situation, a strategy for maintaining financial stability is relevant.</td>
<td>6. In the absence of a significant impact of the external environment to restore financial stability it is advisable to use a strategy of financial stabilization.</td>
</tr>
<tr>
<td>Negative</td>
<td>7. The negative impact of the environment can be overcome due to financial stability. In such a situation, a strategy for maintaining financial stability is relevant.</td>
<td>8. The significant influence of destabilizing external factors, provided the normal financial situation, requires the need for a strategy of financial stabilization.</td>
<td>9. The force of destabilizing external factors is very significant. The financial situation at an enterprise is close to the crisis (bankruptcy). The strategy of financial stabilization.</td>
</tr>
</tbody>
</table>

The high level of financial stability of the system is characterized by the fact that all inventories are covered by its working capital. The standard level of financial stability is associated with a violation of solvency, however, at this level, the possibility of restoring financial equilibrium by replenishing sources of own funds and increasing its own working capital is maintained. The low level of financial stability of an enterprise indicates that the production and economic system is on the verge of bankruptcy. This level is
characterized by the fact that cash, short-term securities and accounts receivable do not cover its accounts payable and overdue loans.

Consequently, taking into account the stochastic nature of the economy of the country and the world as a whole, it is considered possible as template values of the suggested indicators to use their lower limit which allows to structure the provision of financial stability of an enterprise to its corresponding types: high, standard and low, and to determine their thresholds which are depicted in Table 3. Thus, the suggested matrix of ensuring financial stability of an enterprise allows to determine the qualitative level of financial resources management under the influence of external and internal risks.

Conclusions

Under conditions of instability one of the most important tasks is effective management of sustainable development, formation of a unified system at the micro and macro levels of financial stability analytical indicators and their integration into existing management systems as a tool for early diagnosis of possible bankruptcy.

Summarizing the methods of assessing financial stability, one can distinguish the following directions of its research, which can be considered fundamental: the determination of the level of inventory supply sources of their formation; analysis of partial indicators (coefficients) of financial stability in dynamics and comparison with normative values; calculation of the integrated index, which is formed from several of the most weighting coefficients. The most common in Ukrainian practice are the first two approaches.

When choosing an approach to the analysis of financial stability of an enterprise, it is necessary to take into account the tasks of the analysis and the specifics of an enterprise’s activities, namely, the peculiarities of trade enterprises.

On the basis of the analysis of scientific literature, a comprehensive system of indicators for assessing the financial stability of trade enterprises was developed. This system consists of an approach to calculate the set of financial stability coefficients, their information support, the justification of the influence of factors, and information management of these factors. The application of the author’s approach will allow trade enterprises to improve the efficiency of the financial resources management system.

Determining the level of financial stability of trade enterprises based on indicators is important not only from scientific point of view but practical one as well. Since understanding of the level of financial stability enables management of an enterprise to make informed decisions about the optimal usage of its potential with simultaneous progressive development, taking into account the negative impact of environmental factors through effective formation and usage of production, organizational, and financial mechanisms.
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