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CONSIDERATION OF NON-STATIONARY ECONOMY FACTOR IN THE FORMATION OF AN OPTIMAL FUND STRUCTURE: AN INDUSTRY APPROACH

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The relevance of the study of the issues of consideration of the non-stationary economy factor in the optimal enterprise's fund structure formation, taking into account its industry particularity, is explained by the need for scientific and methodological research in this field. Currently, such studies are not insufficient there are no methodological and practical recommendations for solving these problems. The purpose of the article is to develop an integrated model for determining and evaluating the sector financial strategy in a non-stationary economy. The leading method of research used in the preparation of this article was the theoretical-empirical method. In addition, methods of economic-mathematical modeling, economic-statistical and factor analysis, supplemented by methods of logical analysis and modeling, were used. The novelty of the results of the research is the development of a four-component model based on the correlation with the optimal values of four particular criteria that take into account the functioning environment and the specifics of the activity of a particular company in the industry. In addition, the authors of the article substantiated the analytical expression of each of the four criteria of the model and ways to determine their optimal values. The application of the proposed model allows analyzing the effectiveness of an enterprise's current or proposed financial strategy, taking into account its industry specificity, diagnosing its shortcomings and determining ways to eliminate them. The materials of the article are of theoretical importance for research in the field of financial management and optimization of the fund structure. The use of this model in practice as a system of landmarks in the construction of an industry financial strategy in a non-stationary economy will help to obtain more objective financial management decisions in this area.

Keywords: Fund structure, non-stationary economy, financial strategy; industry particularity; Profitability, capitalization.

INTRODUCTION

In a non-stationary economy, the popularity of methodological tools is growing, designed to simulate key parameters of economic activity, ultimately determining the fund structure and financial strategy of the company. Important indicators that determine the basis of financial strategies in the conditions of non-stationary economy are indicators characterizing the effectiveness of: sales, the fund functioning, fund raising and its capitalization.

Based on the opinion of A. N. Zadorozhnaya (2015), there is a need to determine the key parameters of economic activity that are relevant for the assessment and modeling of the effectiveness of the organization's capital management. The authors

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of the article believe that such criteria in the conditions of non-stationary economy should take into account industry specificity.

H.S. Bhamra, L-A Kuehn & I.A. Strebulaev (2015) reasonably explain that in conditions of nonstationary economy the success of economic activity is determined by competitiveness and fund value. Respectively, competitiveness considering industry particularity can be characterized by the effectiveness of the sales, and fund value – by its capitalization and excess of its formation.

A. Damodaran (2004) points to the importance of such a parameter of economic activity of industry enterprises in conditions of nonstationary economy as the financial resources value.

A. Levy (2007) talks about the necessity of the consideration of increased risks that accompany the goods production, provision of services etc. and create information and legal field for highly risked activities. Referring to this we can suggest that the nature of these risks is financial and depends mainly on belonging to this or that industry.

According to the authors, the economic activity industry particularity itself in conditions of non-stationary economy creates those risks and opportunities that needs to be considered when creating a financial strategy (Larionova, 2016). The structure of the fund resources must correlate to:

- Industry demand in the structure of financing resources from the point of view of correlation between the period of fund raising and asset coverage, providing financial-economic activity in particular field.
- Industry opportunities for cost of attracted financing resources, based on additive cost comparison of raised resources and economic fund profitability.
- Industry capitalization, determined by the expectations of the owners regarding their investment rate of return and change of business cost, considering the risks of investing the funds into given field.

Therefore building the industry financial strategy based on considering the impact of company industry particularity and conditions of nonstationary economy is possible with informational and analytical preparations of managing decision in the coordinate system with values of sales effectiveness parameters, fund functionality, fund attraction and its capitalization, united in suggested model. All of this points out the importance of the research topic, reflected in the name of the given article.

MATERIALS AND METHODS

Methodological basis of this research is the work of contemporary economists H.S Bharma, L-A Kuegn & I.A. Strebulaev (2008), Z. Bodie, A. Kane & A. Marcus (2002), R. Braley & S. Myers (2008), A. Damodaran (2004) and others, devoted

to the study of cost, structure and other aspects of fund managing, functioning in business.

The authors of the article used methods of economic mathematical modeling, coefficient method of modeling economic statistical and factorial analysis, supplemented with methods of logical modeling analysis for developing four-component model of industry financial strategy optimization. They also conducted systematization and generalization of facts and concepts in the field of optimal fund structure formation.

A more popular scientific basis of the contemporary concept for fund structure optimization is two theories: compromise theory and theory of fund resources hierarchy, reflecting the conditions of nonstationary economy and industry particularity as key factors.

The essence of hierarchy theory consists in ranging the financial resources along with risk increase from unsorted profit to debitorian fund resources and equity instruments. The mechanism and results of hierarchy theory implementation for optimization fund structure in current state is reflected in researches by A. Zoppa (2002). The period of impact on fund structure can be found in the work by A. Miglo (2016). Among them: legislative regulation of fund amount; taxing load on fund cost; necessity of consideration of "pure assets" amount; the developing level of financial market sector (banking sector, stock market); interest rates; macroeconomic cycles.

Empirical research on dependence of find structure from macroeconomic cycles phases are described from the results of built regressions by A. Levy (2007). Russian studies (Kokoreva, 2012) illustrate effectiveness of the companies, which keep to conservative taxing policy with a part of borrowed financial resources not more than 30%.

Adrienn, H. (2014) explains the process of decision making on company financing resources structure and formulate a hypothesis on industry difference factors, influencing fund structure.

An important aspect of business industry particularities consideration in conditions of nonstationary economy is the asset structure and ways of their assessment. Among most significant works in this field, we are pointing out the works by A. Damodaran (2011). According to conducted research, it is important that the asset structure particularities determine the requirements to financing resources, and its quality is an opportunity for attracting financing resources with favorable cost and suitable period.

Speaking of financing structure optimization we cannot but mention the work by S. Titma & R. Wessels (1988), who suppose that the size of the firm in theory of financing order has a negative impact on financial leverage. Industry particularities often determine the size of the enterprise and its scale of activity. In general, within the research of nonstationary impact on industry enterprise fund

structure it is obvious that the information on large companies is more available and therefore they have bigger chances to obtain more profitable financing resources.

The manifestation of nonstationary economy factor is has a bigger meaning for fund structure formation. Economic non-stationarity is displayed to a greater level with fluctuating effectiveness values. The boarders of the interval and the fluctuation within which the effectiveness values are considered normal depend on company attachment to a certain industry. Speaking of effectiveness level with the given article we mean not only profitability value but also models of market capitalization assessment (Rajan & Copalan, 2015), assessment models of company fund cost and its growth diagnosis, described in works by W.A. Arnoud (2011), E. Porras (2011), Elsas, Flannery & Garfinkel and other scientists.

RESULTS

Referring to the studies of above-mentioned scientists with this article we suggest using four-component model based on functional dependence of generalized effectiveness value from four separate criteria, considering the particularities of environment non-stationarity in the industry field as a methodical modeling instrument and assessment financial strategies.

Economic non-stationarity as the field of functioning has different manifestations on different industry companies. According to the authors of this article more significant from the point of view of financial strategies formation it will be: particularities of cost price structure, asset structure, structure and cost of financing resources, risks and expectations of the owners in regards of profitability from invested funds.

Here is analytical expression of industry financial strategy model generalizations in conditions of nonstationary economy in the form of the following formula:

$$f(Po\text{б}) = \{P1, P2, P3, P4\},\ P1, P2 > 0$$

Where P1 is a value of profitability of sales with gross profit, allowing to estimate the effectiveness of company productivity resources management considering the industry particularity. Increasing value of the index shows the decrease of cost price and increase of production effectiveness. The recommended value of the index can be determined for each industry based on the data, provided by government statistical bodies with complex of companies within a certain industry. The value of the index is as a rule connected to a portion of benefit in key products (goods, jobs, and services), produced and realized by companies of a certain industry.

The indicator of profitability on net profit (P2) characterizes efficiency of activity of the branch enterprises, taking into account set of directions, specific for

their activity, including investment and financial. This indicator, being considered in the long-term perspective, is a guarantor of financial stability, since they reflect the ability to generate a stable positive cash flow. The recommended value of the indicator is also present in the state statistics data, as well as on the websites of tax authorities, as it is used in the pre-testing analysis of the level of tax risk.

The indicator of profitability of assets on capitalized profit (P3) characterizes the company's ability to increase the rate of its economic growth due to the net profit received. Obviously, this indicator is of great importance for owners, since it allows to estimate the growth rate of capital invested in the considered direction of economic activity, or in an industrial enterprise. Information on the average levels of capitalization on profits, in terms of branches of the national economy, or economic activities are also contained in the data of state statistics and rating agencies.

The share of financial costs in the total amount of sources of financing (P4) characterizes the cost of attracted capital for the implementation of all types of activities. The lower the value of this indicator, the lower the risk level associated with managing the fund structure. It should be borne in mind that the increase in costs associated with attracting sources of financing has a negative impact on business development, thereby reducing the company's value in the long run. The value of this indicator begins to be especially manifested in the conditions of the non-stationary economy and essentially depends on the industry specificity, which determines:

- The relative weight of long-term, medium-term and short-term sources of financing, based on the structure of assets and the forms of settlements that have developed in the sectoral economic turnover;
- Sources of financing available in terms of creditworthiness and prices for them.

These particular criteria most fully reflect the effectiveness of the company's activities, are easily defined in the financial statements and serve as a basis for evaluating sector financial strategies that affect the value of enterprises in the industry.

The growth of profitability indicators (P1, P2, P3) with a decrease in the cost of attracted sources (P4) will lead to an increase in the generalized efficiency criterion, therefore, has a positive impact on the current value of the company.

By setting the target values of particular criteria that take into account the non-stationary economic environment of operation and specificity of the activity of a specific company in the industry, based on available state statistics and by calculating actual values based on accounting data, deviations in the company's financial strategy from normal (optimal) are detected.

A prerequisite for the efficiency and growth of the company's value will be the conditions:

$$P1\phi \geq P1ц,\ P2\phi \geq P2ц,\ P3\phi \geq P3ц,\ P4\phi \leq P4ц,$$

Where P1φ, P2φ, P3φ, P4φ are the actual values of the partial criteria, respectively, P1ц, P2ц, P3ц, P4ц are the target values of the partial criteria.

In a nonstationary economy, it is advisable to set the range of change for each particular criterion:

$$(P1 - \Delta P1; P1 + \Delta P1);\ (P2 - \Delta P2;\ P2 + \Delta P2);$$

$$(P3 - \Delta P3; P3 + \Delta P3),\quad (P4 - \Delta P4; P4 + \Delta P4);$$

$$\Delta P1 = \alpha 1 \times P1,\ \Delta P2 = \alpha 2 \times P2,\quad \Delta P3 = \alpha 3 \times P3,\ \Delta P4 = \alpha 4 \times P4)$$

Where α1, α2, α3, α4 - respectively, a certain percentage of P1, P2, P3, P4.

Each range of change should be aligned with the risk scale. (Urminz, Urmaxz). For the criteria P1, P2 and P3, the maximum value of the range corresponds to the minimum acceptable level of risk Uminz, and the minimum value of the range corresponds to the maximum permissible risk level, the excess of which indicates a critical financial condition adversely affects the current value of the company. For the P4 criterion, the excess of Urmaxz is a signal about ineffective management of financing sources, a decrease in investment attractiveness and the current value of an industry enterprise or their organized group.

To determine the actual level of risk associated with the particular criteria P1, P2 P3, you can use the formulas:

$$\Delta Pz = Pmaxz - P\phi z,\ z = 1, 2, 3$$

$$yp\phi(Pz) = yp\ \min(Pz) + (\Delta Pz) \times [(yp\ \max(Pz) - Yp \min(Pz)]:\ (Pmaxz - Pminz],$$

Where (Pz) is the level of actual risk according to the z criterion, Pfk is the actual value of the z criterion, Pmaxz, Pminz is the maximum and minimum value of the z criterion, Урmin (Pz) is the minimum risk level corresponding to the target value of z criterion, Urmax (Pz) is the maximum level of risk corresponding to the minimum value of the z criterion, exceeding this level is not permissible, the financial position of the enterprise is critical.

If ΔPz is greater than zero, the target value of the z criterion is not reached, the risk level is higher than the established one and vice versa.

Accordingly, for a particular criterion P4, the actual risk is calculated using the formula:

$$\Delta P4 = P4\phi - P4min,$$

$$yp\phi(P4) = yp\ \min(P4) + (\Delta P4) \times [(yp \max(P4) - yp \min(P4)]: (P4 \max - P \min 4]$$

If ΔP4 is greater than zero, then the criterion's target value is not reached, the risk level is higher than the allowable one and vice versa.

The aggregate level of financial risk associated with the particular criteria considered can be determined by the formula:

$$\Sigma Wk \times yp\phi k,\ k = 1,4,$$

Where Wk is the weight of the significance of the k partial criterion at the time of the valuation of the current value of the company, is determined by expert judgment.

The advantage of the above criteria for the multivariate effectiveness evaluation that make up the core of the model proposed for the assessment of the sectoral strategy is due to the fact that:

- they are sensitive to the main industry features of the capital structure and have an understandable economic content corresponding to the purposes of diagnosing the quality and realizability of the industry financial strategy;
- the recommended values, or their intervals, are easily determined on the basis of national statistics;
- the actual values of the indicators can be easily calculated by using data from the financial statements that are an open source of information;
- each of the criteria has a clear group of users interested in information about its meaning and dynamics.

DISCUSSION AND CONCLUSION

In the 21st century, when the features of non-stationary economy became much more manifested, EO Fischer, R. Heinkel & J.Zechner (1989), RA Damodaran (2004), R. Braley & S. Myers (2008), T. Bas, G. Muradoglu & K. Phylaktis (2009), as well as M.Z. Frank & V.K. Goyal (2009) studied the factors influencing the capital structure. The studies of the listed scientists mainly contain a description of the relationship between the fund structure and the level of risk and the value of the business in which this fund is invested. At the same time, there are practically no studies devoted to how to take into account industry particularity (as a stable factor) in the fund optimization and the nonstationary nature of the economy (as a destabilizing factor) in the business management.

Earlier, the authors of the article have already examined the problem risen in the title of this article (Petrovskaya, Zaitseva *et al.*, 2016, Petrovskaya, Larionova *et al.*, 2016; Shurkina *et al.*, 2015) and came very close to its solution. First, justifying the features associated with the conditions of the non-stationary economy as a whole. Secondly, with reference to the problems of strategic management of financial risks, taking into account industry particularity.

The complex model of defining and evaluating the industry financial strategy in the conditions of the non-stationary economy and its components, proposed by the authors of this article, is an extension and deepening of the study of the above problems.

Summing up the research carried out on the need to take into account the ways in which the factor of the nonstationary economy influences the formation of an

optimal fund structure considering industry particularity, we note its relevance and insufficient scientific elaboration.

The model proposed by the authors of the article, based on the correlation of the values of efficiency indicators in the sectoral context: sales, fund functioning, fund raising and capitalization, allows to take into account the factor of nonstationary economy in the formation of a company's financial strategy, given its industry affiliation.

The four-component model of the branch financial strategy, suggested by the authors and described in the article, makes it possible to evaluate the success, to identify reserves and risks of potential, or realizable, strategies of money management in a nonstationary economy. Criteria values of indicators of the model quantitatively, taking into account industry particularity, form target marks in the field of current and financial activity, to which the enterprise should strive to achieve, which allows to take into account the factor of non-stationary economy and partially prevent risks associated with its manifestation.

The use of the proposed model in the activities of enterprises to optimize the fund structure in a non-stationary economy will improve the quality of financial strategies, their feasibility and the success of financial management decisions.

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