Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability

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Abstract:
The study substantiates the need to develop a model for determining a strategic targeted structure of financial resources in limited liability companies (LLCs) based on Monte Carlo extrapolation and stochastic modeling methods, applying the author’s software that is used to establishing strategic indicators of absolute value for the company’s own financial resources and a modified ratio financial independence, which is a distinctive feature of the risk-oriented predictions, determination of the optimal interval boundaries in accordance with the phases of the economic cycle.

The figure and tables will serve as a basis for development of methodological tools for stress testing of the financial resource base of the LLC via creation of alternative scenarios at various stages of the business cycle, as well as the improvement of forecasting tools, business planning, risk-based regulation of financial resources in the management system, that will provide in perspective sufficient financial stability for LLCs.

Validation of the technique was carried out in the frame of financial management system of the companies: "OPT-TORG", LLC; "Russkaya Mobile Machinery Station", LLC; "Poultry Processing Plant", LLC; "Wines of Prikumye, 2000", LLC.

Keywords: financial resources, phases of economic cycle, strategic target structure, modified financial independence ratio, evaluation.

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1. Introduction

Corporation as a form of business for economic entities is a powerful driving force that promotes economic growth. One of the most important elements of the national corporate system is the Limited Liability Companies, which determines development of commercial corporative organizations both in the institutional aspect and in the sphere of their financial resources formation.

Unstable economic environment entails a steady share of borrowed funds in financing of the commercial business; LLCs have to set up target indicators in the structure of financial resources. Practice shows that the LLCs do not determine the target values of the indicators that characterize their financial structure; rather the companies stochastically form their financial resources not bringing them in accordance with the phases of the business cycle (Tyapkina, Mongush and Akimova 2014; Ivanova, Mackay, Platonova and Elagina 2017; Frank, Mashevskaia, and Ermolina, 2016).

However, despite the fact that the problems of forming and evaluating the strategic target structure of financial resources have a long period of development, there is ambiguous understanding of the notion "target structure of financial resources" in the financial literature. That makes it difficult to develop a tool for its evaluation and as a result, negatively influencing the result of the corporation's activities (Manuylenko and Mishchenko, 2016; Fetai, 2015).

For instance, Kovalev (2015) characterizes the target capital structure by means of interrelations of the long-term financial resources, wheras Bocharov (2006) describes it through the ratio between own and borrowed resources indicating its different purposes.

I. Ansoff notes that it is not possible to create a full picture of the future "external environment" only "... applying information systems according to the reports providing extrapolation" and it is advisable to use several complementary forecasting methods (Ansoff, 2016). International corporations identify the changes in the target capital structure applying LoTus forecast model, which uses authentic forecast indicators that are designed based on the information entered into the database package of the applied program. In the Russian practice of financial management, unfortunately, such models are not applied. Some aspects of financial modeling are generally disclosed in the study of Jackson and Staunton, (2006), they form the methodological aspect of the problem, thus emphasizing the relevance of this study.

The purpose of this study is to develop a scientifically approved set of tools for assessing the strategic target structure of financial resources in corporations and substantiating the areas for its practical implementation. Achievement of the purpose required fulfillment of the following tasks: justify development of the model for the
strategic target structure of the financial resources of LLCs based on extrapolation methods and stochastic modeling, and to test it in the frames of practical corporative activities. The theoretical and methodological basis of the study is grounded in the scientific works of foreign and Russian scientists, specialists, legislative and regulatory documents of the Government of the Russian Federation, of the North Caucasus Federal District, and of the Stavropol Territory; as well as periodicals, and the internal regulatory framework of the regional LLCs for evaluation their financial resources. Methodological basis of the study: logical, system, situational scientific approaches to the evaluation of financial resources of LLCs.

Methodological toolkit for assessing strategic target structure of financial resources in corporations, such as LLCs, was formed and tested with the help of general scientific methods of analysis, synthesis, system thinking, grouping, analytical, graphical, comparative, economic-statistical, economic-mathematical, extrapolation, coefficient analysis, authoring software of general MS EXCEL and special EXCEL-VBA, etc.; based on the results the main areas of application are indicated.

The working hypothesis of the research is grounded in the need to form a modern scientifically based toolkit for assessing the strategic target structure of financial resources in corporations, in the area of developing a model of a strategic target structure of financial resources LLC, which combines extrapolation and stochastic modeling methods. Theoretical significance of the research lies in the development and expansion of conceptual, theoretical and methodological provisions for evaluating the strategic target structure of financial resources in LLCs that are focused on the formation and development of modern methodological tools for such evaluation. Practical significance of the research lays in development and application of methods, models, practical recommendations that form the methodological and practical basis for development of modern set of tools for assessing the strategic target structure of financial resources and development of specific areas for its exploit.

2. Methodology

2.1. Research of the categorical apparatus to determine a target structure of financial resources in organizations

Structural approach is laid in most approaches to define the concept of "financial resources" of a commercial organization.

For instance, Balabanov (2008), Guseva (2008) include borrowed funds in their interpretation. Lysenko (2006) specifies the sources of financial resources: own company’s resources and quasi elements, accumulation of resources in the financial market and attraction of redistributed funds from the financial and banking sector. In the opinion of Ilyina and Sidorenko (2008), Kolchina and Polyak (2012), Kolchina, et al. (2015) "financial resources" represent combination of the company’s own
recourses and external financial inflows (borrowed funds, attracted funds) for accomplishment of financial obligations, covering current costs linked to expansion of operational activities.

Kovalev (2015) defines the target capital structure via proportional long-term financial resources that minimize the average cost for its provision, which ultimately maximizes the value of the organization, proving the opportunity to mobilize the sources of the long term financing. Bocharov (2006) characterizes the target structure of the organization's capital through the ratio between its own and borrowed resources for asset formation, ensuring a certain profitability of assets and equity at minimum risk.

Basovksy (2013) views the target structure as the structure that balances the costs and benefits of financial gearing, i.e. maximizes the value of the organization, and at the same time recommends determining the factors to be considered in such an assessment by means of expert assessments. In our opinion, each LLC should support the target structure of financial resources, maximizing its value taking into account its strategic landmarks.

2.2. The issues related to formation of the financial resources structures in the researched corporations (LLC)

Identification of the target structure of financial resources makes it clear that the target formula for the profitability of own financial assets can be based on the following formula:

\[
P_{OC} = PFR + (1 - Ti) \frac{BFR}{OFR} (PFR - CoD) \tag{1}
\]

Where:
- PFR- profitability of financial resources (assets) by net profit
- Ti - income tax rate;
- BFR- borrowed financial resources;
- OFR- own financial resources;
- CoD - cost of debt.

It is necessary to take into account that the difference between the expected return on equity and the cost of borrowed capital should be very significant; since it is taken for granted that the organization's debt obligations are safer than its own capital. Investors demand a lower profitability when investing in debt obligations, and higher one when investing in the authorized capital of the organization. It is so, since the more of borrowed capital is involved, the more risk is imposed on the equity, but this is not due to credit risk (the situation persists even in the case of attracting risk-free borrowings). Although, the "hidden" costs associated with borrowings are not taken into account. Using the constant coefficient of financial gearing the
organization can increase the amount of borrowed capital while increasing the profitability of its own financial resources at the expense of the increasing amount of equity capita.

There were various types of economic activity LLCs selected for the research purpose; they were those that predetermine financial ground of LLCs in Stavropol Territory and occupying key positions in the real sector of the economy of the region, and those that differ in variability of their financial resources.

"Opt-Torg" LLC deals with wholesale and retail trade; vehicles repair, household products, etc. (retail trade in cosmetics and perfume products);

“Russkaya Mobile Machinery Station", LLC - construction (construction / building works);

"Poultry Processing Plant", LLC - processing industries (production of meat and food by-products of agricultural production of poultry and rabbits);

"Wines of Prikumye, 2000", LLC - agriculture, hunting and forestry (growing grapes).

To determine the target profitability of financial resources the cost of debt is considered taking into account the value of the key rate of the Bank of Russia, and profitability of financial resources (assets) for "Wines of Prikumye, 2000", LLC is considered based on the indicator values, i.e. profitability of agricultural organizations defined by the Stavropol Territory State Program "Agriculture Development "(State Program for the Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Foodstuffs, 2013-2020); with reference to "Opt-Torg” LLC, “Russkaya Mobile Machinery Station", LLC, "Poultry Processing Plant", LLC , because imperfectness of the capital market approximately not lower than the current inflation rate of 10.8% in the Stavropol Territory (Official website of the Federal State Statistics Service in Stavropol Territory), the target ratio between borrowed and own financial resources is established by the rule of "golden financial management": 34%: 66%.

"Opt-Torg” LLC, “Russkaya Mobile Machinery Station", LLC, "Poultry Processing Plant", LLC:

\[
P_{OC} = 0.108 = 0.8 \times \frac{0.34}{0.66} \times (0.108 - 0.1) \times 100\% = 11.1\%
\]

"Wines of Prikumye, 2000":

\[
P_{OC} = 0.14 + 0.8 \times \frac{0.34}{0.66} \times (0.14 - 0.1) \times 100\% = 15.6\%
\]
That means that with the target structure of financial resources, based on the "golden rule" of financial management a specified level of profitability of the own financial resources should be provided 11.1%, with actual values as of 01.01.2016 in "Opt-Torg" LLC - 2.7%, in “Russkaya Mobile Machinery Station”, LLC - 24.9%, in "Poultry Processing Plant", LLC - 8.8%, in "Wines of Prikumye, 2000" LLC - 15.6% (in fact as of 01.01.2016, 6.4%).

Most economists associate the identification of the target structure of capital with its optimization. Practice shows that the target structure of capital is not always optimal because of the impact of macroeconomic factors.

Provided the dynamism of the external environment, it becomes specifically beneficial to achieve the optimal dynamic capital structure of LLCs, which implies the establishment of the future state of the macro environment. That means that the model of a rational dynamic structure of capital is created on the principle of "structural adaptation", i.e. the structure of assets and liabilities of LLCs must react to changes in the external environment.

The model of "external environment" constructed in accordance with individual forecasts is the starting point for the formation of the dynamic structure of capital. So, the changes in the target structure of capital are determined by the dynamics of the factors affecting it.

In international corporations "LoTus" prognostic model for determining changes in the target structure is used to assess alternative scenarios, namely, variations of:

- input data to determine the impact of financing terms on the key performance parameters;
- variable coefficients to determine the effect of business risk in the organization at productive parameters provided individual financial strategies.

The result is determination of the external financing amount, average cost of the capital charge, profitability of company’s own financial resources, the interest coverage ratio, etc. Financial manager interprets the results to determine the target structure of the capital.

In conditions of high leverage for LLC mainly represented with a poor-quality source of financing - i.e. bank liabilities, short-term and long-term loans - financial managers need to pay special attention to formation of an optimal financial capital structure (Table 1). Funding of the assessed LLCs with mainly borrowed funds may be explained with the fact that their creditors actually become new members. LLCs can return to financing only at the expense of own capital.
Table 1: Composition and structure of financial resource sources in the researched corporations - LLCs (in dynamics)

| Y     | Absolute value (in thousand rubles) | Financial resources total, including: | Own financial resources | Authorized capital | Revaluation of non-current assets | Additional capital (without revaluation) | Undistributed profit (loss) | Long-term financial funds: |
|-------|-------------------------------------|---------------------------------------|-------------------------|--------------------|----------------------------------|----------------------------------------|---------------------------|--------------------------|
|       | Structure, %                        | Absolute value (in thousand rubles)   | Structure, %            | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % |
| 2009  | 2338640 100 98077 4,2 500 0,02 – – | 6499 0,2 91218 4,0 1591007 68,0 |
| 2010  | 2595092 100 104821 4,0 1000 0,04 – – | 6499 0,2 98372 3,8 1366552 52,7 |
| 2011  | 2830337 100 95204 3,3 1000 0,04 – – | 6499 0,2 88755 3,1 1861731 65,8 |
| 2012  | 3207401 100 134181 4,2 1000 0,03 – – | 6499 0,2 127732 4,0 0 0 |
| 2013  | 3088829 100 151978 5,0 1000 0,03 – – | 6499 0,2 145529 4,8 1830000 59,2 |
| 2014  | 3013421 100 148876 4,9 1000 0,03 – – | 6499 0,2 142427 4,7 1500000 49,8 |
| 2015  | 2862071 100 152933 5,3 1000 0,04 – – | 6499 0,2 146484 5,1 1456981 50,9 |

Long-term borrowed funds
Other long-term sources
Short-term financial resources:
Short-term borrowed funds
Accounts payable
Other short-term sources

| Y     | Absolute value (in thousand rubles) | Structure, % |
|-------|-------------------------------------|--------------|
| 2009  | 1591007 68,0 | 49556 7,8 |
|       | 49556 7,8 |
Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability

| Year | Financial resources total, including: | Own financial resources | Authorized capital | Revaluation of non-current assets | Additional capital (without revaluation) | Undistributed profit (loss) | Long-term financial funds: |
|------|--------------------------------------|-------------------------|-------------------|----------------------------------|------------------------------------------|-----------------------------|---------------------------|
|      | Absolute value (in thousand rubles)  | Structure, %            | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % |
|      | 2009 | 393601 | 100 | 5850 | 1.5 | 176 | 0.04 | - | - | - | - | 5674 | 1.4 | 31177 | 7.9 |
|      | 2010 | 741006 | 100 | 16645 | 2.2 | 176 | 0.02 | - | - | - | - | 16469 | 2.2 | 56960 | 7.7 |
|      | 2011 | 809380 | 100 | 36649 | 4.5 | 176 | 0.02 | - | - | - | - | 36473 | 4.5 | 125000 | 15.5 |
|      | 2012 | 888463 | 100 | 59900 | 6.7 | 176 | 0.02 | - | - | - | - | 59724 | 6.7 | - | - |
|      | 2013 | 5339018 | 100 | 83374 | 1.6 | 176 | 0.003 | - | - | 1153 | 0.02 | 82045 | 1.5 | - | - |
|      | 2014 | 7502669 | 100 | 302036 | 4.0 | 176 | 0.002 | 146307 | 2.0 | - | - | 155553 | 2.0 | - | - |
|      | 2015 | 7801809 | 100 | 471056 | 6.0 | 176 | 0.002 | 146307 | 1.9 | - | - | 324573 | 4.1 | - | - |

"Ruskaya Mobile Machinery Station", LLC

Long-term borrowed funds | Other long-term sources | Short-term financial resources: | Short-term borrowed funds | Accounts payable | Other short-term sources
| Year | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % |
|------|----------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|
| 2009 | 31177                            | 7.9         | –                                | –           | 356574                           | 90.6        | 95081                            | 24.2        | 261493                           | 66.4        | –                                | –           |
| 2010 | 56960                            | 7.7         | –                                | –           | 667401                           | 90.1        | –                                | –           | 667401                           | 90.1        | –                                | –           |
| 2011 | 125000                           | 15.5        | –                                | –           | 647731                           | 80.0        | 120000                           | 14.8        | 363481                           | 44.9        | 164250                           | 20.3        |
| 2012 | –                                | –           | –                                | –           | 828563                           | 93.3        | 204752                           | 23.0        | 461039                           | 51.9        | 162772                           | 18.4        |
| 2013 | –                                | –           | –                                | –           | 5255644                          | 98.4        | 484920                           | 9.1         | 4764297                          | 89.2        | 6427                            | 0.1         |
| 2014 | –                                | –           | –                                | –           | 7200633                          | 96.0        | 480250                           | 6.4         | 6705358                          | 89.4        | 15025                           | 0.2         |
| 2015 | –                                | –           | –                                | –           | 7330753                          | 94.0        | 520000                           | 6.7         | 6785938                          | 87.0        | 24815                           | 0.3         |

"Poultry Processing Plant", LLC

| Year | Financial resources total, including: | Own financial resources | Authorized capital | Revaluation of non-current assets | Additional capital (without revaluation) | Undistributed profit (loss) | Long-term financial funds: |
|------|--------------------------------------|-------------------------|-------------------|----------------------------------|---------------------------------------|----------------------------|--------------------------|
|      | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % | Absolute value (in thousand rubles) | Structure, % |
| 2009 | 1741514                              | 100                    | 78556             | 4,5                              | 66273                                 | 3,8           | –                                | –           | 11870                            | 0,7         | 413                             | 0,02        | 925271                           | 53,1        |
| 2010 | 2804814                              | 100                    | 78643             | 2,8                              | 66273                                 | 2,4           | –                                | –           | 11870                            | 0,4         | 500                             | 0,02        | 1926363                          | 68,7        |
| 2011 | 3909811                              | 100                    | 78746             | 2,0                              | 66273                                 | 1,7           | –                                | –           | 11870                            | 0,3         | 603                             | 0,02        | 2072253                          | 53,0        |
| 2012 | 4909283                              | 100                    | 88820             | 1,8                              | 66273                                 | 1,4           | –                                | –           | 11870                            | 0,2         | 10677                           | 0,2         | 1854253                          | 37,8        |
| 2013 | 4528513                              | 100                    | 101896            | 2,3                              | 66273                                 | 1,5           | –                                | –           | 11870                            | 0,3         | 23753                           | 0,5         | 1920969                          | 42,4        |
Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability

| Year | Absolute Value (in thousand rubles) | Structure, % | Absolute Value (in thousand rubles) | Structure, % | Absolute Value (in thousand rubles) | Structure, % | Absolute Value (in thousand rubles) | Structure, % | Absolute Value (in thousand rubles) | Structure, % | Absolute Value (in thousand rubles) | Structure, % |
|------|-----------------------------------|--------------|-----------------------------------|--------------|-----------------------------------|--------------|-----------------------------------|--------------|-----------------------------------|--------------|-----------------------------------|--------------|
| 2009 | 913553                            | 52.5         | 11718                             | 0.6          | 737687                            | 42.4         | 399019                            | 22.9         | 338668                            | 19.5         | –                                 | –            |
| 2010 | 1926363                           | 68.7         | –                                 | –            | 799808                            | 28.5         | 376596                            | 13.4         | 423212                            | 15.1         | –                                 | –            |
| 2011 | 2072253                           | 53.0         | –                                 | –            | 1758812                           | 45.0         | 368697                            | 9.4          | 1390115                           | 35.6         | –                                 | –            |
| 2012 | 1854253                           | 37.8         | –                                 | –            | 2966210                           | 60.4         | 4440000                           | 9.0          | 2496169                           | 50.9         | 26041                            | 0.5          |
| 2013 | 1920608                           | 42.4         | 361                               | 0.01         | 2505648                           | 55.3         | 1366618                           | 30.2         | 1121677                           | 24.7         | 17353                            | 0.4          |
| 2014 | 1435116                           | 22.6         | 15194                             | 0.2          | 4745364                           | 74.7         | 733972                            | 11.6         | 3944538                           | 62.1         | 66854                            | 1.0          |
| 2015 | 988312                            | 12.0         | 48557                             | 0.6          | 6414900                           | 78.0         | 2907723                           | 35.3         | 3473333                           | 42.2         | 33844                            | 0.5          |

"Wines of Prikumye, 2000", LLC

| Year | Financial resources total, including: | Own financial resources | Authorized capital | Revaluation of non-current assets | Additional capital (without revaluation) | Undistributed profit (loss) | Long-term financial funds: |
|------|--------------------------------------|-------------------------|-------------------|----------------------------------|------------------------------------------|----------------------------|---------------------------|
| 2009 | 197425                               | 100                     | 33186             | 16.8                             | 20000                                    | 10.1                       | –                         | 74655 | 37.8|
| 2010 | 210961                               | 100                     | 33689             | 16.0                             | 20000                                    | 9.5                        | –                         | 71736 | 34.0|
The extend of the indicators’ values that characterize structure of financial resources in the assessed LLCs on each phase of the business cycle (Table 2) stipulate that LLCs do not identify target values for neither of: stability of financial resources, financial independence (dependence), ratio of attracted and own financial resources, or attracted and cumulative financial resources, profitability of assets (own financial...
resources), liabilities coverage, mobilization of own financial resources and their multiplier, that in the end shape financial culture of financial managers. Negative values and increase of financial gearing effect are noted (Table 3).

Table 2: Special indicators characterizing the state of financial resources structure in the researched corporations - LLCs in each phase of the business cycle

| Indicators | YY | YY | YY | YY | YY | YY | YY | YY | YY | YY | YY | YY | YY | YY |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1. Indicators for sustainability of financial resources | | | | | | | | | | | | | | |
| 1. Own financial resources (thousand rubles) | 98077 | 104821 | 95204 | 134181 | 151978 | 148876 | 152933 | 5850 | 16645 | 36649 | 59900 | 8374 | 8374 | 8374 |
| 2. Long term credits and loans (thousand rubles) | 1591007 | 1366552 | 1861731 | 0 | 134181 | 151978 | 148876 | 152933 | 5850 | 16645 | 36649 | 59900 | 8374 | 8374 | 8374 |
| 3. Joint financial resources (thousand rubles) | 2338640 | 2595092 | 2830337 | 3207401 | 1590000 | 1500000 | 1456981 | 31177 | 16465 | 56960 | 125000 | 809380 | 741006 | 7801809 |
| 4. Sustainability financial resources ratio (Коэффициент устойчивости финансовых ресурсов (current, permanent) (line 1 + line 2) / line 3, %) | 72,3 | 56,7 | 69,1 | 4,2 | 64,2 | 54,7 | 56,2 | 9,4 | 20,0 | 6,7 | 4,0 | 6,0 |
| 5. Net income (loss), (thousand rubles) | 5701 | 6906 | 9512 | 180862 | 18578 | 20206 | 4057 | 1720 | 16468 | 20002 | 20756 | 155553 | 117388 |
| 6. Ownership ratio (financial independence) (line 1 / line 3), % | 4,2 | 4,0 | 3,3 | 4,2 | 5,0 | 4,9 | 5,3 | 1,5 | 2,2 | 4,5 | 6,7 | 1,6 | 4,0 | 6,0 |

2. Indicators of the borrowings status and service
V.V. Manuylenko, L.A. Kabardokova, M.A. Lektionova, N.V. Sobchenko, T.A. Sadovskaya

| 1. Borrowed funds (thousand rubles) | 1591007 | 1719052 | 1861731 | 1878791 | 1830000 | 1830000 | 2036887 | 126258 | 56960 | 245000 | 204752 | 484920 | 480250 | 520000 |
| 2. Financial dependency ratio (borrowed funds / total funds), % | 68.0 | 66.2 | 65.8 | 58.6 | 59.2 | 60.7 | 71.2 | 32.1 | 7.7 | 342.2 | 3.4 | 4.8 | 5.2 | 6.7 |
| 3. Borrowed and own funds ratio, % | 162.2 | 164.0 | 105.5 | 140.2 | 120.4 | 122.9 | 133.1 | 2158.3 | 342.2 | 3 | 4 | 5 | 8 | 11.4 |
| 4. Indicators of the attracted funds status and service | | | | | | | | | | | | | | |
| 1. Accounts payable (thousand rubles) | 649556 | 771219 | 876307 | 1194429 | 1106851 | 1034545 | 672251 | 261493 | 342.2 | 3 | 4 | 5 | 8 | 11.4 |
| 2. Borrowed and own funds ratio, % | 27.8 | 25.7 | 30.9 | 37.2 | 34.3 | 23.5 | 66.4 | 90.1 | 44.9 | 29.4 | 3 | 4 | 5 | 8 | 11.4 |
| 4. Indicators of the efficiency for financial resources integrating profitability and business activity | | | | | | | | | | | | | | |
| 1. Profitability (unprofitability) of assets, % | 5.8 | 6.6 | 10.0 | 13.5 | 12.1 | 13.6 | 2.7 | 0.4 | 98.9 | 98.9 | 208.8 | 208.8 | 208.8 | 208.8 |
| 2. Profitability (unprofitability) of the own financial resources, % | 0.2 | 0.3 | 0.3 | 0.6 | 0.6 | 0.7 | 0.1 | 0.4 | 34.7 | 34.7 | 34.7 | 34.7 | 34.7 | 34.7 |
| 3. Available funds (monetary and equivalents + investments), thousand rubles | 2440563 | 2490271 | 2735133 | 3072202 | 2936851 | 2864545 | 2790138 | 387751 | 724361 | 724361 | 724361 | 724361 | 724361 | 724361 |
| 4. Commitments (short-term + long-term), thousand rubles | 67887 | 181102 | 171395 | 181102 | 171395 | 181102 | 171395 | 181102 | 171395 | 181102 | 171395 | 181102 | 171395 | 181102 |
Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability

5. Obligations coverage, % (line 3 / line 4)

|                      | 2.8 | 2.0 | 2.7 | 3.9 | 2.6 | 2.4 | 1.3 | 7.0 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|

5. Financial risk indicators

1. Immobilized assets, thousand rubles

|                      | 1437757 | 1546529 | 1546841 | 156385 | 1633904 | 1738344 | 1694340 | 710 |
|----------------------|---------|---------|---------|--------|---------|---------|---------|-----|

2. Immobilized own resources (line 1 / own financial resources), %

|                      | 2.8 | 2.0 | 2.7 | 3.9 | 2.6 | 2.4 | 1.3 | 7.0 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|

3. Own financial resources multiplication, units

|                      | 23,845 | 24,758 | 29,729 | 23,904 | 20,324 | 20,242 | 18,715 | 9.3 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|-----|

"Poultry Processing Plant", LLC

1. Indicators for sustainability of financial resources

1. Own financial resources (thousand rubles)

|                      | 78556 | 78643 | 78746 | 88820 | 101896 | 158492 | 776451 | 97 |
|----------------------|-------|-------|-------|-------|--------|--------|--------|-----|

2. Long term credits and loans (thousand rubles)

|                      | 913553 | 1926563 | 2072235 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|--------|---------|---------|---------|---------|--------|--------|-----|

3. Joint financial resources (thousand rubles)

|                      | 1741514 | 2804814 | 2099811 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|---------|---------|---------|---------|---------|--------|--------|-----|

4. Sustainability financial resources Ratio (Коэффициент устойчивости финансовых ресурсов (current, permanent) (line 1 + line 2) / line 3, %

|                      | 57.0 | 71.5 | 55.0 | 39.6 | 45.4 | 61.5 | 33.3 | 9.3 |
|----------------------|------|------|------|------|------|------|------|-----|

5. Net income (loss), (thousand rubles)

|                      | 53 | 87 | 103 | 10074 | 13076 | 56964 | 6889 | 1658 |
|----------------------|---|----|-----|-------|-------|-------|------|-----|

"Wines of Prikumye, 2000", LLC

1. Indicators for sustainability of financial resources

1. Own financial resources (thousand rubles)

|                      | 78556 | 78643 | 78746 | 88820 | 101896 | 158492 | 776451 | 97 |
|----------------------|-------|-------|-------|-------|--------|--------|--------|-----|

2. Long term credits and loans (thousand rubles)

|                      | 913553 | 1926563 | 2072235 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|--------|---------|---------|---------|---------|--------|--------|-----|

3. Joint financial resources (thousand rubles)

|                      | 1741514 | 2804814 | 2099811 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|---------|---------|---------|---------|---------|--------|--------|-----|

4. Sustainability financial resources Ratio (Коэффициент устойчивости финансовых ресурсов (current, permanent) (line 1 + line 2) / line 3, %

|                      | 57.0 | 71.5 | 55.0 | 39.6 | 45.4 | 61.5 | 33.3 | 9.3 |
|----------------------|------|------|------|------|------|------|------|-----|

5. Net income (loss), (thousand rubles)

|                      | 53 | 87 | 103 | 10074 | 13076 | 56964 | 6889 | 1658 |
|----------------------|---|----|-----|-------|-------|-------|------|-----|

"Poultry Processing Plant", LLC

1. Indicators for sustainability of financial resources

1. Own financial resources (thousand rubles)

|                      | 78556 | 78643 | 78746 | 88820 | 101896 | 158492 | 776451 | 97 |
|----------------------|-------|-------|-------|-------|--------|--------|--------|-----|

2. Long term credits and loans (thousand rubles)

|                      | 913553 | 1926563 | 2072235 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|--------|---------|---------|---------|---------|--------|--------|-----|

3. Joint financial resources (thousand rubles)

|                      | 1741514 | 2804814 | 2099811 | 1854253 | 1920608 | 1435116 | 988312 | 71 |
|----------------------|---------|---------|---------|---------|---------|--------|--------|-----|

4. Sustainability financial resources Ratio (Коэффициент устойчивости финансовых ресурсов (current, permanent) (line 1 + line 2) / line 3, %

|                      | 57.0 | 71.5 | 55.0 | 39.6 | 45.4 | 61.5 | 33.3 | 9.3 |
|----------------------|------|------|------|------|------|------|------|-----|

5. Net income (loss), (thousand rubles)

|                      | 53 | 87 | 103 | 10074 | 13076 | 56964 | 6889 | 1658 |
|----------------------|---|----|-----|-------|-------|-------|------|-----|
### 6. Ownership ratio (financial independence) (line 1 / line 3), %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 4.5| 2.8| 2.0| 1.8| 2.3| 2.5| 9.4| 16.8|

### 2 Indicators of the borrowings status and service

#### 1. Borrowed funds (thousand rubles)

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 1312572 | 2302959 | 2440950 | 2298253 | 3287226 | 2169088 | 3896035 | 74655 |

#### 2. Financial dependency ratio (borrowed funds / total funds), %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 75.4 | 82.1 | 62.4 | 46.8 | 72.6 | 34.1 | 47.3 | 37.8 |

#### 3. Borrowed and own funds ratio, %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 1670.9 | 2928.4 | 3909.8 | 2587.5 | 3226.1 | 1586.6 | 501.8 | 225.0 |

### 3. Indicators of the attracted funds status and service

#### 1. Accounts payable (thousand rubles)

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 338068 | 423212 | 1390115 | 2496169 | 1121677 | 3944538 | 3473333 | 89584 |

#### 2. Borrowed and own funds ratio, %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 19.4 | 15.1 | 35.6 | 50.8 | 30.3 | 42.7 | 45.4 | 44.3 |

### 4. Indicators of the efficiency for financial resources integrating profitability and business activity

#### 1. Profitability (unprofitability) of assets, %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 |

#### 2. Profitability (unprofitability) of the own financial resources, %

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 0.07 | 0.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |

#### 3. Available funds (monetary and equivalents + investments), thousand rubles

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 191575 | 29195 | 3831065 | 4820463 | 595754 | 745769 | 1110623 | 1416 |

#### 4. Commitments (short-term + long-term), thousand rubles

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 1661988 | 272617 | 14004 | 4829467 | 1485674 | 177727 | 44350 | 1142 |

#### 5. Obligations coverage, % (line 3 / line 4)

|     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
|     | 11.5 | 1.1 | 0.04 | 0.05 | 1.8 | 0.9 | 0.3 | 1.1 |

### 5. Financial risk indicators
Table 3: Determination of financial gearing effect in the researched corporations – LLCs

| YY       | Tax correction, units | Assets, thousand rubles | Profit (loss) prior to tax, thousand rubles | Interest expenses, thousand rubles | Paid borrowed funds, thousand rubles | Economic efficiency of use of own financial resources, group 4 – group 3 | Average interest rate (for paid borrowed funds, units (group 5) × group 6) | Differential, units (group 7 – group 8) | Correlation of liabilities and own financial resources (average of 4 × group 10), % | Financial gearing effect, % |
|----------|----------------------|-------------------------|---------------------------------------------|----------------------------------|-------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|
|          | 1 | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10                         | 11                             |
| 2009     | 0.8 | 98077 | 7626  | 134350| 1591007| 1.448 | 0.085 | 1,363 | 22,845 | 24,911                      |       |
| 2010     | 0.8 | 104821| 7805  | 124991| 1719052| 1.267 | 0.073 | +1,194 | 23,758 | 22,694                      |       |
| 2011     | 0.8 | 95204 | 11890 | 150562| 1861731| 1.707 | 0.081 | +1,626 | 28,730 | 37,372                      |       |
| 2012     | 0.8 | 134181| 22577 | 173130| 1878791| 1.459 | 0.093 | +1,366 | 22,904 | 25,030                      |       |
| 2013     | 0.8 | 151978| 22973 | 190697| 1830000| 1.406 | 0.104 | +1,302 | 19,325 | 20,129                      |       |
| 2014     | 0.8 | 148876| 25257 | 200667| 1830000| 1.518 | 0.11  | +1,408 | 19,242 | 21,675                      |       |
| 2015     | 0.8 | 152933| 5071  | 266634| 2036887| 1.777 | 0.131 | +1,646 | 17,715 | 23,328                      |       |

OPT-TORG, LLC

| YY       | Tax correction, units | Assets, thousand rubles | Profit (loss) prior to tax, thousand rubles | Interest expenses, thousand rubles | Paid borrowed funds, thousand rubles | Economic efficiency of use of own financial resources, group 4 – group 3 | Average interest rate (for paid borrowed funds, units (group 5) × group 6) | Differential, units (group 7 – group 8) | Correlation of liabilities and own financial resources (average of 4 × group 10), % | Financial gearing effect, % |
|----------|----------------------|-------------------------|---------------------------------------------|----------------------------------|-------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|
| 2009     | 0.8 | 393601 | 2150  | 0     | 126258 | 0.005 | 0.005 | 66,282 | 26,5 |                           |
| 2010     | 0.8 | 741006 | 20585 | 19266 | 56960  | 0.054 | 0.338 | 43,518 | 988,7 |                           |
| 2011     | 0.8 | 809380 | 2003  | 23325 | 245000 | 0.060 | 0.095 | 21,085 | 59,0 |                           |
| 2012     | 0.8 | 888463 | 25945 | 33011 | 204752 | 0.066 | 0.161 | 13,832 | 105,1 |                           |
| 2013     | 0.8 | 5339018| 28350 | 36871 | 484920 | 0.012 | 0.076 | 63,037 | 322,7 |                           |
| 2014     | 0.8 | 7502669| 197513| 55697 | 480250 | 0.034 | 0.116 | 23,840 | 156,4 |                           |
| 2015     | 0.8 | 7801809| 147518| 75886 | 520000 | 0.029 | 0.146 | 15,562 | 145,7 |                           |

"Russkaya Mobile Machinery Station", LLC

| YY       | Tax correction, units | Assets, thousand rubles | Profit (loss) prior to tax, thousand rubles | Interest expenses, thousand rubles | Paid borrowed funds, thousand rubles | Economic efficiency of use of own financial resources, group 4 – group 3 | Average interest rate (for paid borrowed funds, units (group 5) × group 6) | Differential, units (group 7 – group 8) | Correlation of liabilities and own financial resources (average of 4 × group 10), % | Financial gearing effect, % |
|----------|----------------------|-------------------------|---------------------------------------------|----------------------------------|-------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|
| 2009     | 0.8 | 1741514 | 1797 | 165798 | 1312572 | 0.099 | 0.126 | –0.027 | 21,169 | 45,7 |
| 2010     | 0.8 | 2804814 | 555 | 187718 | 2302959 | 0.067 | 0.082 | –0.015 | 34,665 | 41,6 |
| 2011     | 0.8 | 3909881 | 2032 | 196215 | 2440950 | 0.051 | 0.080 | –0.029 | 48,651 | 112,9 |
| 2012     | 0.8 | 4909283 | 11516 | 293907 | 2298253 | 0.062 | 0.128 | –0.066 | 54,272 | 286,6 |
| 2013     | 0.8 | 4528513 | 10661 | 321990 | 2387226 | 0.073 | 0.098 | –0.025 | 43,443 | 86,9 |
| 2014     | 0.8 | 6354166 | 104757 | 353813 | 2169088 | 0.072 | 0.163 | –0.091 | 39,091 | 284,6 |
| 2015     | 0.8 | 8228220 | 92722 | 436449 | 3896035 | 0.064 | 0.112 | –0.048 | 9,597 | 36,9 |

"Wines of Prikumye, 2000", LLC

| YY       | Tax correction, units | Assets, thousand rubles | Profit (loss) prior to tax, thousand rubles | Interest expenses, thousand rubles | Paid borrowed funds, thousand rubles | Economic efficiency of use of own financial resources, group 4 – group 3 | Average interest rate (for paid borrowed funds, units (group 5) × group 6) | Differential, units (group 7 – group 8) | Correlation of liabilities and own financial resources (average of 4 × group 10), % | Financial gearing effect, % |
|----------|----------------------|-------------------------|---------------------------------------------|----------------------------------|-------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|
| 2009     | 0.8 | 197425 | 2072 | 6221 | 74655 | 0.042 | 0.083 | –0.041 | 4,949 | –16,2 |
| 2010     | 0.8 | 210961 | 4163 | 4591 | 83736 | 0.041 | 0.055 | –0.014 | 5,262 | –5,9 |
| 2011     | 0.8 | 223499 | 1212 | 7726 | 67419 | 0.040 | 0.115 | –0.075 | 5,449 | 32,7 |
Thus, in the researched LLCs the following can diminish the guarantees of creditors to cover debts causing an increase of risk for them and their employees:
- reduction and / or insignificant share of the authorized capital in the balance sheet (where its minimum set value must meet the requirements of national legislation);
- low values of the ownership coefficient indicating the current stability of financial resources for creditors.

Negative value and growth of the financial gearing in most LLCs lead own company’s capital to risk exposure. Financial gearing increases fluctuation rate in the value of the company's own capital, which in turn becomes more risky, hence, profitability also increases. The growth of financial gearing increasing the risks causes an increase of the required profitability rate, which provokes interest among the participants. In this situation, participants demand increase of compensations due to taking additional risks which they are forced to put up with. It means that the participants require compensations for commercial risk, profitability of financial resources and the premium for bearing financial risks.

It should considered that financial risks not only relate to current financial gearing, but also include other factors, such as: future inclination of the management to borrowings, access to funds, liquidity profile, the nature of capital requirements and flexibility in this matter, potential risks, costly litigation, etc. Increase of debt amount entails possibility of insufficiency for cash flows to cover interest payments. It should be also noted that the tax system contributes to a high debt load. All of the above and the conditions of uncertainty justify the need to develop the model for strategic target structure of capital in national corporations - LLCs, thus forming the next stage of our research.

2.3. Characteristics and implementation of the stages for development of methodological tools that serve to assess the strategic target structure of financial resources in the corporations under investigation – LLCs

Computerization of the financial resources management in LLCs in Russia is ensured by the special Excel-VBA software package "Software for determining the strategic target structure of financial resources in commercial corporate organizations" (Manuylenko and Kabardakova, 2017) which allows to calculate modified strategic indicators of financial independence and own financial resources. Implementation of the Monte Carlo stochastic simulation method in determining the strategic target structure of financial resources is found expedient due to the fact that most of the indicators characterizing the evaluation of the structure of the financial
resources of the LLCs are of the random character. Parameters of the Monte Carlo method are the following: full coverage of distribution history; complex evaluation without approximating assumptions; projected volatility and evaluation of threats.

Stages to construct an automated model for strategic target structure of capital for LLCs (Figure 1).

Stage 1. Development of the procedure of creating a special program complex Excel-VBA.

The main factor describing the structure of financial resources that is the coefficient of ownership for LLC’s (financial independence) was selected as a random value. The degree of risk is determined by the volatility of the ownership coefficient, its deviation below the established range of 0.5 - 0.66 in the form of the corresponding percent of its normal distribution function.

A list of actions to build an empirical function for the distribution of own financial resources is in the Figure 1. Prior to Monte-Carlo implementation the system of financial resources management for LLCs applies the method of extrapolation (sliding average), financial resources are forecasted for 2016 - 2017 (Figure 2).
**Figure 1. Implementation of Monte Carlo stochastic simulation method to determining the strategic target structure of the corporation’s financial resources**

**Actions undertaken to construct an empirical distribution function of a random variable - financial independence ratio; parameters for scenario:**

1. Taking into account that national practice of financial management considers the value of the ownership coefficient as min 50%, whereas according to the “golden rule” of financial management, the share of own financial resources in total is 66%. Random value is generated by a random number sensor within the distribution interval [0.5-0.66]. Functions for the simulated distributions are determined by random numbers.

The effective follow-up period is 7 years, 2009-2015.

2. Based on the distribution function $F(s)$, which is a probability that a random variable is less than or equal to $s$ with a confidence level of 90% own financial resources are defined, including those projected in 2016-2017.

3. Based on the inverse distribution function $F^{-1}$ (distribution quantile) (according to the established argument $v$, the value of $s$ is identified, where the random variable is $\leq s$ with probability $v$) own financial resources are determined, the quantile is 90%, including the projected in 2016-2017.

4. Calculations were repeated 30,000 times using simulations based on the generation of a set of random scenarios grounded in assumptions and probable with stated constraints.

5. Creation of a variation series of the value for own financial resources projected for 9 years (forecast 2016-2017).

Forecasting the amount of financial resources in 2016-2017 based on the extrapolation method (moving average):

Determination of the projected value of financial resources:

$$Y_{\text{projected}} = Y_{\text{basic}} \cdot \bar{K}_1$$  \hspace{1cm} (B. 1)

where $Y_{\text{basic}}$ – basic level (last level of the initial raw), considered as foundation for extrapolation (starting point);

$\bar{K}$ – average for growth ratio; $1$ – forecasting range (the period of anticipation), the interval for which the forecast is developed.

Average growth rate / the average of the coefficients in each year:

$$\bar{K} = \frac{\sum_{i=1}^{m} K_i}{m-1}$$  \hspace{1cm} (B. 2)

where $K_i$ – growth rates each year; $m$ – number of observations;

Growth ratio in the current period:

$$K_i = \frac{Y_{\text{cp}}}{Y_{\text{pp}} - 1}$$  \hspace{1cm} (B. 3)

where $Y_{\text{cp}}$ – growth ratio for current period; $Y_{\text{pp}}$ – growth ratio for the previous period.

Projection error based on the calculation of the mean error:

$$\text{MPE} = \frac{1}{n} \sum_{i=1}^{n} \frac{P_{\text{ist}} - P_{\text{progn}}}{P_{\text{ist}}} \cdot 100\%$$  \hspace{1cm} (B. 4)

where $n$ – number of projection intervals; $P_{\text{ist}}$ – true value of the predicted parameter; $P_{\text{progn}}$ – projected parameter value.
That means that the special program complex Excel-VBA includes the methods of extrapolation (sliding average) and Monte Carlo simulation (implementation of the principles of dynamism and automation for financial resources management in the management system). The results of 30,000 Monte Carlo experiments allow that an empirical function distribution for our own financial resources is constructed (Figures 2, 3, 4, 6). According to the Monte Carlo method, the optimality boundary for the coefficients characterizing the status of financial resources of LLCs is of the interval nature, it means that the point by point values of the indicators are set in the context of the phases of the business cycle and the stage of the life cycle of the LLCs.

**Figure 2: Results of forecasting and stochastic modeling for strategic indicators of the target structure of financial resources in "Russkaya Mobile Machinery Station", LLC Developed by the authors V. V. Manuylenko, L A. Kabard**

![Figure 2](image1)

**Figure 3: Results of forecasting and stochastic modeling for strategic indicators of the target structure of financial resources in “Poultry processing plant” LLC Developed by the authors V. V. Manuylenko, L A. Kabardakova**

![Figure 3](image2)
Strategic indicators of the target financial structure of capital are targeted to achieve financial balance that ensures sufficient financial sustainability of the LLCs. At the same time, the 5th principle of corporate management G 20 / OECD "Information Disclosure and Transparency" is being implemented with regard to information on risk factor forecasting, the effectiveness of disclosure is achieved by taking into account the organizations’ specifics and the corresponding type of economic activity (G20 / OECD Principles of Corporate Management).
**Figure 5:** Sequence of the stages for construction of automated model of strategic target structure of capital for LLCs (Developed by the authors: V. V. Manuylenko, L A. Kabardakova)

| STAGES TO CONSTRUCT AUTOMATED MODEL FOR STRATEGIC TARGET STRUCTURE OF CAPITAL |
|---------------------------------------------------------------|
| **Stage 1** | Development of the procedure of creating a special program complex Excel-VBA |
| **Stage 2** | Comparative valuation of the obtained strategic targeted and actual indicators of the structure for financial resources, the key of which is ownership coefficient |
| **Stage 3** | Loading the indicators (for stable financing, concentration of financing by creditors), which expand the possibilities of stochastic modeling implementation. |
| **Stage 4** | Monitoring and update of variable indicators acquired using the Monte Carlo method. |
| **Stage 5** | Motivated conclusion about the strategic target structure for financial resources at the current moment and in perspective |

Stage 2. Comparative valuation of the obtained strategic targeted and actual indicators of the structure for financial resources, the key of which is ownership coefficient is targeted at subsequent decisions of financial managers on the best structure of financial resources, at this point financial managers should be aware of the wide range of possible performance results with LLCs.

Stage 3. Loading the indicators (for stable financing, concentration of financing by creditors), which expand the possibilities of stochastic modeling implementation. At this stage of the implementation of the Monte Carlo method, it is expedient to determine the indicator of stable financing as a ratio of actual and projected values of own financial resources, establishing a minimum level of stable financing for a period of 1 year, and characterizing the sustainability of the LLC in the long-term period due to the use of a more reliable source of financing. Its values should lean to the value $\geq 100\%$. Given that the sources of financing of LLCs are concentrated mainly in accounts payable the authors introduce the indicator of the concentration
of funding as per creditors, which requires special monitoring by the financial management of LLC, especially with increase of its concentration:

\[ \text{Cf = Financing received from each creditor/Financial resources} \] (2)

Financing received from each of significant creditor is determined by summing up all types of accounts payable from one creditor or group of related creditors or affiliated creditors. "Significant creditor" is one creditor or a group of related or affiliated creditors with a total of more than 1% (Identification is suggested by the finance managers based on the analysis of each creditor’s share in the total value) of debt of accounts payable. It is important to consider that the list of significant creditors is constantly changing, especially in unstable periods.

"Opt-Torg" LLC is interested in calculation of the similar indicator for the creditors, specifically banks on which LLC should have a full set of information, such as: the situation with credit markets within the region and the whole country, information on rates for loans with various loan periods, dynamics of their change, the number of credit defaults, data on the extension of loans. Monitoring of such parameters is conducted to ensure that LLC is aware of the stability of a particular bank in the credit market or of its financial difficulties. At the same time, financial managers should be able to interpret correctly the received information. It should be emphasized that the use of indicators of financial sources concentration stimulates diversification of their sources.

Stage 4. Monitoring and update of variable indicators acquired using the Monte Carlo method.

Stage 5. Motivated conclusion about the strategic target structure for financial resources at the current moment and in perspective

Ambiguity of the criteria for making managerial decisions based on the results of the imitative assessment justifies the need to apply a motivated conclusion about the strategic target structure of financial resources. The Board of Directors bears all responsibility for forecasting the requirements for financial resources to ensure their continued growth and accumulation. After the interpretation of the results, the financial managers set target pillars for strategic indicators of the target structure of financial resources included in the system of strategic goals for the LLC.

3. Results

3.1. In the analytic part of the study

It is recognized that in the conditions of instability, LLCs do not determine the target values of the indicators that characterize their financial structure; in most cases LLCs stochastically form financial resources, ignoring phases of the business cycle;
stochastic changes in the values of property coefficients, the persistence of permanent financial resources, financial dependence, ratio of borrowed and its own financial resources, as well as attracted and cumulative financial resources, the equity multiplier witness for imbalance between the policies of the formation of the financial structure of capital and financing of assets (Table 1, 2);

– negative effect of financial gearing in LLCs is a result of low economic profitability of assets that cannot compensate for the costs of land resources, i.e., financial managers do not comply with the basic rule of financial gearing and increase its leverage not by means of adjusting the differential, but with other means (Table 3);

– comparison of strategic targets in actual values (Table 4) should prompt development of strategic financial solutions by financial managers;

In the researched LLCs there is a significant exceeding of the strategic targets over their actual values, the ownership coefficient slightly exceeds its minimum score, but its values correspond to a buffer score of 1%. Its strategic value indicates the "thickness of the pillow" provided by the owners to protect creditors. As a result, under the conditions of a regular change in the macro-, meso- and microenvironment of LLCs operation the task of maximizing the coefficient of financial independence becomes dynamic.

It is obvious that the values of the indicator in the researched LLCs stand far from the established level of $> = 100\%$.

3.2. In the methodological field of research

A methodological toolkit was developed to determine strategic target structure of financial resources in LLCs based on the author's software product, aimed to establish strategic indicators of the absolute value of LLCs' own financial resources and a modified coefficient of financial independence;

- introduction of the property index for the modified key target of the development of the LLC, which can subsequently be incorporated into the business planning process of the financial resources structure, and other financial indicators used to monitor financial resources of the LLC;

- application of methodological toolkit to determine strategic target structure of financial resources in LLC, attracting the author's software product for stress testing that exploits alternative scenarios for changing the ownership coefficient and own financial resources in the context of the business cycle phases. As a result, the need for own financial resources is determined via usage of stress input data;

- the indicators of funding concentration by creditors were introduced as an instrument for regulating accounts payable, excessive amount of borrowed financial resources in their total amount, the content of which depending on the composition of creditors can be constantly refined, as well as the concentration of participants' shares, broken down by participants, that require special monitoring on behalf of financial management of LLC, especially when concentration increases.
Practical value of the toolkit for assessing the strategic target structure of financial resources LLC:

- determines the desired status of structure of financial resources, taking into account the phases of the business cycle, based on the provision of the Monte Carlo method, according to which the values of the coefficients describing the state of financial resources of the LLC have an interval optimal boundary;
- identifies and evaluates many scenarios of how the company's own capital develops, provides for further development of a strategy for financial resources management and selection of appropriate management methods depending on the phases of the business cycle;
- distinguishes the universal nature of the application, as it is used in financial risk management, strategic and information management, as well as for creation and evaluation of scenarios on competitors and partners’ behaviors in the financial markets.

Developed toolkit for assessing strategic target structure of financial resources of LLCs was tested in financial resources management system, and the financial management subsystems of: "OPT-TORG", LLC ; "Russkaya Mobile Machinery Station", LLC; "Poultry Processing Plant", LLC; "Wines of Prikumye, 2000", LLC.

Distribution of absolute values of own financial resources modeled by years, thousand rubles

**Figure 6: Forecasted results and stochastic modeling of strategic indicators for target structure of financial resources in "Opt-Torg" LLC (Developed by the authors: V. V. Manuylenko, L.A. Kabardakova)**

![Graph showing forecasted results and stochastic modeling of strategic indicators for target structure of financial resources in "Opt-Torg" LLC](image)

**Table 4: Comparison of actual and strategic target indicators characterizing financial situation in the researched corporations – LLC**

| YY | Amount of own financial resources | Property Ratio (ratio of financial independence), % |
|----|----------------------------------|-----------------------------------------------|
|    | Actual (thousand rubles)         | Strategic targeted (thousand rubles)           |
|    | Ratio of values for strategic targeted and own financial | Actual | Strategic targeted | Difference between strategic targeted and actual ratios |
Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability

| YY       | "OPT-TORG", LLC | "Russkaya Mobile Machinery Station", LLC | "Poultry Processing Plant", LLC | "Wines of Prikumye, 2000" |
|----------|-----------------|----------------------------------------|---------------------------------|--------------------------|
| 2009     | 98077           | 1205528                                | 1229,2                          | 47,348                   |
| 2010     | 104821          | 1341968                                | 1280,2                          | 47,712                   |
| 2011     | 95204           | 1465284                                | 1539,1                          | 48,471                   |
| 2012     | 134181          | 1662846                                | 1239,3                          | 47,644                   |
| 2013     | 151978          | 1594513                                | 1280,2                          | 46,622                   |
| 2014     | 152933          | 1483555                                | 970,1                           | 46,353                   |
| 2015     | 152595          | 1569498                                | 51,548                          | + 51,687                 |
| 2016     | 158876          | 1662846                                | 1229,2                          | 47,348                   |
| 2017     | 166453          | 1759136                                | 1280,2                          | 46,622                   |
| 2018     | 1759136         | 1856496                                | 970,1                           | 46,353                   |
| 2019     | 1856496         | 1953024                                | 51,548                          | + 51,687                 |

Source: provided by the authors V. V. Manuylenko, L. A. Kabardakova – introduction of stable financing indicator for LLCs (Table 5);

Table 5: Values of stable financing indicator for researched corporations – LLCs

| YY | "OPT-TORG", LLC | "Russkaya Mobile Machinery Station", LLC | "Poultry Processing Plant", LLC | "Wines of Prikumye, 2000" |
|----|-----------------|----------------------------------------|---------------------------------|--------------------------|
| 2009 | 8.1             | 2.9                                    | 8.8                             | 32.5                     |
Conclusions

Forecasted model for assessing strategic target structure of financial resources of the LLCs was developed. It is aimed at determining both: modified ownership coefficient and values of companies’ own financial resources. It takes into account the requirements of the "golden rule" of financial management” and formalizes description of uncertainty with Monte Carlo method designating final indicators both: forecasted (projected) and modified.

The completed research, particularly the results of the assessment, will further become the basis for development of management solutions to select alternative methodological toolkit for management of the financial resources in LLCs. It will serve the following:

- formation of a modern methodological toolkit for assessing financial resources in conditions of uncertainty;
- formation of modern methodological toolkit for assessing financial potential in conditions of uncertainty;
- formation of a modern methodological toolkit for assessing financial resource base in conditions of uncertainty;
- establishment of strategic indicators that characterize financial structure of capital in perspective as well as formation of possible scenarios for increasing financial and resource potential of LLCs;
- development of financial strategies that take into account the risk-oriented nature of corporations;
- development of new insurance approaches to cover financial risks associated with the formation of financial resources of LLCs in the insurance market Rusetskaja, E. A., Rusetskiy, M. G., Rybina, G. K., Chuvilova, O. N. (2016);
- implementation of other approaches to assessment of financial resources, taking into account the specifics and environment of the functioning of corporations.

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