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## 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.

JEL Classification: O10, D10

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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, Mashevskaya, 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.

Basovsky (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 (LLCs)

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:

$$POC = PFR + (1 - Ti) \frac{BFR}{OFR} (PFR - CoD) (1)$$

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:

$$POC = 0.108 = 0.8 * \frac{0.34}{0.66} * (0.108 - 0.1) * 100\% = 11.1\%$$

"Wines of Prikumye, 2000":

$$POC = 0.14 + 0.8 * \frac{0.34}{0.66} * (0.14 - 0.1) * 100\% = 15.6\%$$

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 "OptTorg" 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

coi	poratio	ons - 1	LCs (i	n dyn	amics)									
							"OPT-	TORG	", LLC					
	Finan resour tota includ	rces ıl,	Ow finan resou	cial	Author capi		Revalu of no curre asse	on- ent	Additi capi (with revalua	tal out	Undist ed pr (los	ofit	Long-te financi funds	ial
Y	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, %	Absolute value (in thousand rubles)	Structure, %
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1 5
2009	2338640	100	98077	4,2	500	0,02	_	-	5449	0,2	92128	4,0	1591007	68,0
2010	2595092	100	104821	4,0	1000	0,04	-	-	5449	0,2	98372	3,8	1366552	52,7
2011	2830337	100	95204	3,3	1000	0,04	-	-	5449	0,2	88755	3,1	1861731	65,8
2012	3207401	100	134181	4,2	1000	0,03	-	-	5449	0,2	127732	4,0	0	0
2013	3088829	100	151978	5,0	1000	0,03	I	I	5449	0,2	145529	4,8	1830000	59,2
2014	3013421	100	148876	4,9	1000	0,03	I	I	5449	0,2	142427	4,7	1500000	49,8
2015	2862071	100	152933	5,3	1000	0,04	-	-	5449	0,2	146484	5,1	1456981	50,9
	Long-t borrov fund	wed	Other terr	m	Short- finan- resour	cial	Short- borro fun	wed	Accou paya		Oth short-t source	term		
	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	1591007	68,0			49556	7,8			49556	7,8				

													•	i
2010	1366552	52,7			123719	3,3	52500	3,6	71219	9,7				
2011	1861731	65,8			73402	0,9			73402	0,9				
2012	0	0			073220	5,8	878791	8,6	194429	7,2				
2013	1830000	59,2			106851	5,8			106851	5,8				
2014	1500000	49,8			364545	5,3	30000	1,0	034545	4,3				
2015	1456981	50,9			252157	3,8	79906	0,3	72251	3,5				
					"Ru	ısskaya	Mobile N	Aachine	ery Station	ı", LLC	2			
Y	Finan resour tota includ	rces	Ow finan resou	cial	Author capi		Revalu of no curre asse	on- ent	Additi capi (with revalua	tal out	Undist ed pr (los	ofit	Long-te financi funds	ial
	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, %	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	_	-
	Long-borrov	wed	Other terr	m	Short- finan- resour	cial	Short- borro fun	wed	Accor paya		Oth short-t source	erm		

	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	_	ı		
2010	56960	7,7	-	I	667401	90,1	-	ı	667401	90,1	ı	ı		
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		
						"Poul	ltry Proce	ssing F	lant", LLC					
Y	Finan resour tota includ	rces l,	Ow finan resou	cial	Author capit		Revalu of no curre asse	on- ent	Additi capit (with revalua	al out	Undist ed pro (los	ofit	Long-te financi funds	al
	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, %	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	-	ı	11870	0,4	500	0,02	1926363	68,7
2011 2010	2804814 3909811	100	78643 78746	2,8	66273	2,4	-	-	11870 11870	0,4	500	0,02	1926363 2072253	
201		100					-							53,0

Second   S												1			
Long-term borrowed funds   Short-term financial resources   Short-term financial funds   Short-term f	2014	6354166	100	158492	2,5	66273	1,0	_	ı	11870	0,2	80349	1,3	1450310	22,8
Description	2015	8228220	100	776451	9,4	531283	6,5	_	_	11870	0,1	233298	2,8	1036869	12,6
Funds   Sources   Pussion   Pusion   Pussion   Pusion   Pussion   Pusion   Pussion   Pusion   Pussion					_										
Purson   P										paya	ble				
1926363   68,7   -   -   799808   28,5   376596   13,4   423212   15,1   -   -     -										pu					
1926363   68,7   -   -   799808   28,5   376596   13,4   423212   15,1   -   -     -		onsa		onsa		onsa		onsa		onsa		onsa			
1926363   68,7   -   799808   28,5   376596   13,4   423212   15,1   -   -		n th	%	n the	%,	n th	%,	n th	% '	n th	% '	n the	%,		
1926363   68,7   -   -   799808   28,5   376596   13,4   423212   15,1   -   -     -		ıe (i oles)	ture	ne (i oles)	ture	ıe (i oles)	ture	ıe (i	ture	ıe (i oles)	ture	ıe (i oles)	ture		
1926363   68,7   -   -   799808   28,5   376596   13,4   423212   15,1   -   -     -		vah	truc	vah	truc	valı	truc	valı	truc	valı	truc	valı	truc		
1926363   68,7   -   -   799808   28,5   376596   13,4   423212   15,1   -   -     -		olute	<i>O</i> 1	olute	01	olute	01	olute	01	olute	01	olute	01		
1926363 68,7		Abso		Abso		Abso		Abso		Abso		Abso			
Total	2009	913553	52,5	11718	0,6	737687	42,4	399019	22,9	338668	19,5	_	-		
1854253   37,8   -   -   2966210   60,4   444000   9,0   2496169   50,9   26041   0,5	2010	1926363	68,7	-	-	799808	28,5	376596	13,4	423212	15,1	-	-		
1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1435116   22,6   15194   0,2   4745364   74,7   733972   11,6   3944538   62,1   66854   1,0     1435116   22,6   15194   0,2   4745364   74,7   733972   11,6   3944538   62,1   66854   1,0     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   55,3   1366618   30,2   1121677   24,7   17353   0,4     1920608   42,4   361   0,01   2505648   74,7   733972   11,6   3944538   62,1   66854   1,0     1920608   42,4   361   0,2   445564   74,7   733972   11,6   3944538   62,1   66854   1,0     1920608   42,4   361   0,2   445564   74,7   733972   11,6   3944538   62,1   66854   1,0     1920608   42,4   361   42,5	2011	2072253	53,0	-	-	1758812	45,0	368697	9,4	1390115	35,6	-	-		
The first of the	2012	1854253	37,8	-	-	2966210	60,4	444000	9,0	2496169	50,9	26041	0,5		
Second Prikumye   Second Pri	2013	1920608	42,4	361	0,01	2505648	55,3	1366618	30,2	1121677	24,7	17353	0,4		
"Wines of Prikumye, 2000", LLC  Y Financial resources total, including:    Wines of Prikumye, 2000", LLC    Y Financial resources total, including:   Paper	2014	1435116	22,6	15194	0,2	4745364	74,7	733972	11,6	3944538	62,1	66854	1,0		
Y Financial resources total, including:    Y   Financial resources total, including:	2015	988312	12,0	48557	0,6	6414900	,		,		,	33844	0,5		
Y resources total, including:    Y   resources total, including:   Structure, walker (in thous and rubles)   Struc							"Win								
total, including:    Total						Author	ized								
The land of the value (in thousand rubles) 1000 33186 16'8 20000 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 33186 16'8 20'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'1 - 31124 16'1 - 18248 - 3'4 24622 32'0 10'0 10'0 10'0 10'0 10'0 10'0 10'0 1	1														
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8 197425 100 33186 16,8 20000 10,1 31734 16,1 -18548 - 9,4 74655 37.		e (in les)	%	e (in les)	%	e (in les)	%	e (in les)		e (in les)	%	e (in les)	%	e (in les)	%
8 197425 100 33186 16,8 20000 10,1 31734 16,1 -18548 - 9,4 74655 37.		valu I rub	ıre, (	valu I rub	ıre, ʻ	valu I rub		valu I rub		valu I rub		valu I rub	ne,	valu I rub	ıre, e
8 197425 100 33186 16,8 20000 10,1 31734 16,1 -18548 - 9,4 74655 37.		lute	ructı	lute	ructı	lute	ructı	lute		lute	ructı	lute	ructı	lute	ructi
		Abso	St	Abso	St	Abso	St	Abso		Abso	St	Abso	St	Abso	St
0 210961 100 33689 16,0 20000 9,5 31734 15,1 -18045 -8,6 71736 34	2009	197425	100	33186	16,8	20000	10,1	_	-	31734	16,1	- 18548	- 9,4	74655	37,8
	2010	210961	100	33689	16,0	20000	9,5	-	_	31734	15,1	- 18045	- 8,6	71736	34,0

2011	223499	100	34659	15,5	20000	8,9	31734	14,2	-	_	- 17075	- 7,6	62419	27,9
2012	363477	100	39652	10,9	20000	5,5	31734	8,7	-	-	-12082	- 3,3	68256	18,8
2013	455892	100	46706	10,2	20000	4,4	31734	6,9	_	_	- 5028	- 1,1	21980	4,9
2014	522817	100	49895	9,5	20000	3,8	31734	6,1	_	_	- 1839	- 0,4	-	-
2015	438437	100	40818	9,3	20000	4,6	31734	7,2	-	-	-10916	- 2,5	_	_
	Long-borrov	wed	Other ter sour	m	Short- finan resour	cial	Short- borro fun	wed	Accor paya		Oth short- source	term		
	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	74655	37,8	-	_	89584	45,4	_	_	89584	45,4	-			
2010	71736	34,0	-	_	105536	50,0	12000	5,7	93536	44,3	-			
2011	62419	27,9	-	_	126421	56,6	5000	2,3	121421	54,3	-			
2012	68256	18,8	-	_	255569	70,3	2000	0,6	253569	69,7	-			
2013	21980	4,9	_	_	387206	84,9	-	_	387206	84,9	-			
2014	_	-	_	_	472922	90,5	-	_	472922	90,5	-			
2015	-	-	-	_	397619	90,7	-	_	397619	90,7	-			

**Source:** calculated by the authors V. V. Manuylenko, L. A. Kabardakova according to the financial statements of corporations (Internet site of "Russkaya Mobile Machinery Station", LLC, Internet site of "Wines of Prikumye, 2000", LLC)

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

in the research		o.p.		15 2	<u> </u>	ir care.		Y Y	ine oi	ibirios	в сус	-		
	2009	2010	2011	2012	2013	2014	2015	2009	2010	2011	2012	2013	2014	2015
			ı			Bu	siness c	ycle ph	ases			ı	ı	
Indicators	Recession	11,000	Opurm	Boom		Downturn		Recession	11	Opum	Boom		Downturn	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			"Ol	РТ-ТОІ						-	LLC	achiner	y Statio	n",
Own financial resources (thousand rubles)	1. Indicators for sustainability of financial recourses													471056
2. Long term credits and loans (thousand rubles)	1591007	1366552	1861731	0	1830000	1500000	1456981	31177	9699	125000	I	I	1	I
3. Joint financial resources (thousand rubles)	2338640	2595092	2830337	3207401	3088829	3013421	2862071	393601	741006	809380	888463	5339018	7502669	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	6'6	20,0	6,7	1,6	4,0	6,0
5. Net income (loss), (thousand rubles)	5701	9069	9512	18062	82881	20206	4057	1720	16468	20002	20756	22321	155553	117388
6. Ownership ratio (financial independence) (line 1 / line 3), %	4,2	4,0	3,3	4,2	5,0	6,4	5,3	1,5	2,2	4,5	6,7	1,6	4,0	6,0
			2. Indi	icators o	of the b	orrowin	ıgs statı	is and s	ervice					

Borrowed funds (thousand rubles)	1591007	1719052	1861731	1878791	1830000	1830000	2036887	126258	26960	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	30,3	23,0	9,1	6,4	6,7
3. Borrowed and own funds ratio, %	1622,2	1640,0	1955,5	1400,2	1204,1	1229,2	1331,9	2158,3	342,2	668,5	341,8	581,6	159,0	110,4
		:	3. Indic	ators of	the attr	acted fi	ınds sta	itus and	service	;				
Accounts payable (thousand rubles)	649556	771219	873402	1194429	1106851	1034545	672251	261493	667401	363481	461039	4764297	6705358	6785938
2. Borrowed and own funds ratio, %	27,8	7,62	30,9	37,2	35,8	34,3	23,5	66,4	90,1	44,9	51,9	89,2	89,4	87,0
		4. Indio	cators o	f the ef	ficiency	for fin		esource ivity	s integr	ating p	rofitabi	lity and	busines	ss
1. Profitability (unprofitability) of assets, %	0,2	0,3	0,3	9,0	9,0	0,7	0,1	0,4	2,2	2,5	2,3	0,4	2,1	1,5
2. Profitability (unprofitability) of the own financial resources, %	5,8	9,9	0,01	13,5	12,1	13,6	2,7	29,4	6,86	54,6	34,7	26,8	51,5	24,9
3. Available funds (monetary and equivalents + investments), thousand rubles	62664	48908	73867	120927	76734	68334	36112	275343	153699	89689	213740	67887	181102	171395
4. Commitments (short-term + long- term), thousand rubles	2240563	2490271	2735133	3073220	2936851	2864545	2709138	387751	724361	172731	828563	5255644	7200633	7330753

				1	1	1	1			1		1	1	
5. Obligations coverage, % (line 3 /line 4)	2,8	2,0	2,7	3,9	2,6	2,4	1,3	71,0	21,2	8,3	25,8	1,3	2,5	2,3
				I	l	5.	Financi	al risk i	ndicato	rs	I	I	I	l
I. Immobilized assets, thousand rubles	1437757	1546529	1546841	1563851	1633904	1738344	1694340	54494	74979	107826	88885	484976	380637	494795
2.Immobilized own resources (line 1 / own financial resources), %	1465,9	1475,4	1624,8	1165,5	1075,1	1167,6	1107,9	931,5	450,5	294,2	148,4	581,7	126,0	105,0
3. Own financial resources multiplication, units	23,845	24,758	29,729	23,904	20,324	20,242	18,715	67,282	44,518	22,085	14,832	64,037	24,840	16,562
		"F	oultry l		ing Plaı				"W	ines of	Prikum	ye, 200	0", LLC	2
				1. 1	Indicate	ors for s	ustainal	bility of	financ	ial reco	urses			
1. Own financial resources (thousand rubles)	78556	78643	78746	88820	101896	158492	776451	33186	33689	34659	39652	46706	49895	40818
2. Long term credits and loans (thousand rubles)	913553	1926363	2072253	1854253	1920608	1435116	988312	74655	71736	62419	68256	21980	ı	I
3. Joint financial resources (thousand rubles)	1741514	2804814	3909811	4909283	4528513	6354166	8228220	197425	210961	223499	363477	455892	522817	438437
4. Sustainability financial resources Ratio (Коэффициент устойчивости финансовых ресурсов (сиггенt, permanent) (line 1 + line 2) / line 3, %	57,0	71,5	55,0	39,6	44,7	25,1	21,4	54,6	50,0	43,4	29,7	15,1	9,5	9,3
5. Net income (loss), (thousand rubles)	53	87	103	10074	13076	56596	68289	1658	3330	026	4993	7054	3190	- 9077

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	16,0	15,5	10,9	10,2	5,6	9,3
					2 Indie	cators o	f the bo	orrowing	gs statu:	s and se	ervice			
Borrowed funds (thousand rubles)	1312572	2302959	2440950	2298253	3287226	2169088	3896035	74655	83736	67419	70256	21980	0	0
2. Financial dependency ratio (borrowed funds / total funds), %	75,4	82,1	62,4	46,8	72,6	34,1	47,3	37,8	39,7	30,2	19,3	4,8	0	0
3. Borrowed and own funds ratio, %	1670,9	2928,4	3099,8	2587,5	3226,1	1368,6	501,8	225,0	248,6	194,5	177,2	47,1	0	0
			•	3	. Indica	itors of	the attr	acted fu	ınds sta	tus and	service			
Accounts payable (thousand rubles)	338668	423212	1390115	2496169	1121677	3944538	3473333	89584	93536	121421	253569	387206	472922	397619
2. Borrowed and own funds ratio, %	19,4	15,1	35,6	50,8	24,8	62,1	42,2	45,4	44,3	54,3	8,69	84,9	90,5	7,06
		4. Inc	dicators	of the	efficien	cy for f		l resour activity	ces inte	grating	profita	bility aı	nd busii	ness
1. Profitability (unprofitability) of assets, %	0,003	0,003	0,003	0,2	0,3	6,0	8,0	0,8	1,6	0,4	1,4	1,5	0,6	- 2,1
2. Profitability (unprofitability) of the own financial resources, %	0,07	0,1	0,1	11,3	12,8	35,7	8,8	5,0	6,6	2,8	12,6	15,1	6,4	- 22,2
3. Available funds (monetary and equivalents + investments), thousand rubles	191575	29195	149	964	2337	110623	51450	1416	09	854	814	4430	74	1390
4. Commitments (short-term + long- term), thousand rubles	1662958	2726171	3831065	4820463	4426617	6195674	7451769	164239	177272	188840	323825	409186	472922	397619
5. Obligations coverage, % (line 3 /line 4)	11,5	1,1	0,004	0,02	0,05	1,8	7,0	6,0	0,03	5,0	6,0	1,1	0,02	0,3
						5. Fi	nancial	risk ind	licators					

1. Immobilized assets, thousand rubles	101693	137808	233866	229823 2	228643 1	227911	345541 8	113074	117094	118422	156622	178349	183807	170600
2.Immobilized own resources (line 1 / own financial resources), %	1294,5	1752,3	2969,9	2587,5	2243,9	1438,0	445,0	340,7	347,6	341,7	395,0	381,9	368,4	418,0
3. Own financial resources multiplication, units	22,169	35,665	49,651	55,272	44,443	40,091	10,597	5,950	6,262	6,449	9,167	9,761	10,478	10,741

Source: compiled by the authors V. V. Manuylenko, L A. Kabardakova

**Table 3:** Determination of financial gearing effect in the researched corporations – *LLCs* 

YY	Tax corrector, units	Assets, thousand rubles.	Profit (loss) prior to tax, thousand rubles.	Interest expenses, thousand rubles.	Paid borrowed funds, thousand rubles	Economic efficiency of assets, units (group 4 + roup 5) / group 3	Average interest rate for paid borrowed funds, units (group 5 / group 6)	Differential, units (group 7 – group 8)	Correlation of liabilities and cial resources (leverage of ncial gearing), units	Financial gearing effect × group 9 × group 10), %
1	2	3	4	5	6	7	8	9	10	11
2009	0.0	98077	7626	124250	"OPT- 1591007	TORG", LI 1,448		+ 1 262	22.945	+ 24 011
	0,8	104821		134350 124991	1591007		0,085	+ 1,363	22,845	+ 24,911
2010		95204	7805	150562		1,267 1,707	0,073	+1,194	23,758 28,730	+ 22,694
	0,8		11890		1861731		0,081	+ 1,626	,	+ 37,372
2012	0,8	134181	22577	173130	1878791	1,459	0,093	+ 1,366	22,904	+ 25,03
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
						inery Statio				
2009	0,8	393601	2150	0	126258	0,005	0	+ 0,005	66,282	+ 26,5
2010	0,8	741006	20585	19266	56960	0,054	0,338	-0,284	43,518	- 988,7
2011	0,8	809380	25003	23325	245000	0,060	0,095	-0,035	21,085	- 59,0
2012	0,8	888463	25945	33011	204752	0,066	0,161	-0,095	13,832	-105,1
2013	0,8	5339018	28350	36871	484920	0,012	0,076	-0,064	63,037	-322,7
2014	0,8	7502669	197513	55697	480250	0,034	0,116	-0,082	23,840	- 156,4
2015	0,8	7801809	147518	75886	520000	0,029	0,146	-0,117	15,562	- 145,7
	, ,					cessing Plan		ı		
2009	0,8	1741514	7397	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	3909811	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	321190	3287226	0,073	0,098	-0,025	43,443	- 86,9
2014		6354166	104757	353813	2169088	0,072	0,163	- 0,091	39,091	-284,6
2015		8228220	92722	436449	3896035	0,064	0,112	-0,048	9,597	- 36,9
						ikumye, 200		•		
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

2012	0,8	363477	6241	4388	70256	0,029	0,062	-0,033	8,167	-21,6
2013	0,8	455892	8818	726	21980	0,021	0,033	-0,012	8,761	- 8,4
2014	0,8	522817	3987	0	0	0,008	0	+ 0,008	9,478	+ 6,1
2015	0,8	438437	18462	0	0	0,042	0	+ 0,042	9,741	+ 32,7

Source: calculated by the authors V. V. Manuylenko, L A. Kabardakova

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 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  $F^{s-1}$  (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:

$$\mathbf{Y}_{\text{projected}} = \mathbf{Y}_{\text{basic}} \cdot \overline{\mathbf{K}}^{1}$$
(B. 1)

where Y<sub>basic</sub>, - basic level (last level of the initial raw), considered as foundation for extrapolation (starting point);

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:

$$\frac{\sum_{i=1}^{m} K_{i}}{K=\underbrace{i=1}_{m-1}}$$
(B. 2)

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

Growth ratio in the current period:

$$K_{i} = \frac{y_{cp}}{y_{pp-1}}$$
(B. 3)

where  $y_{\varphi r}$  - growth ratio for current period;  $y_{\varphi n-1}$  -growth ratio for the previous period.

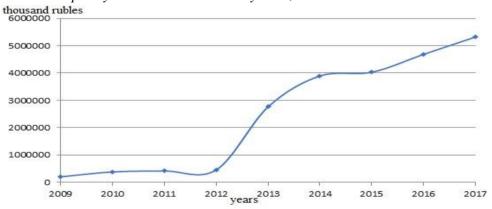
Projection error based on the calculation of the mean error:

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

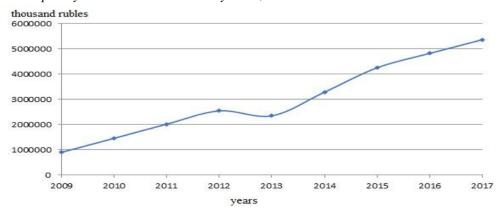
where n - number of projection intervals;  $P_{ist}$  - true value of the predicted parameter;  $P_{progn}$  - projected parameter value.

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.

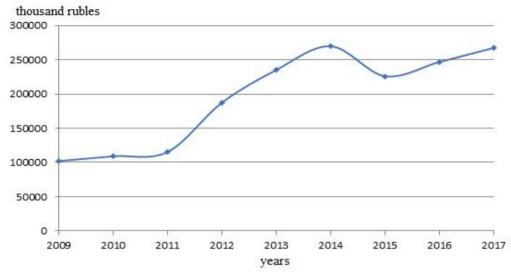
Figure 2: Results of forecasting and stochastic modeling for strategic indicators of the target structure of financial resources in "Russkaya Mobile Machinery Station", LLC Developed by the authors V. V. Manuylenko, L.A. Kabard



**Figure 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 4:** Results of forecasting and stochastic modeling for strategic indicators of the target structure of financial resources in "Wines of Prikumye, 2000", LL. Developed by the authors V. V. Manuylenko, L A. Kabardakov



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 Development of the procedure of creating a special program complex Stage 1 Excel-VBA Comparative valuation of the obtained strategic targeted and actual indicators of the structure for financial resources, the key of which is Stage 2 ownership coefficient Loading the indicators (for stable financing, concentration of financing by creditors), which expand the possibilities of stochastic Stage 3 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 > 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:

## Cf = Finanve received from each creditor/Financial recources (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 micro environment 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;

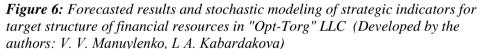
- introduction of the property index for the modified key target of the development of the LLC, which can subsequently be incorporated into the business planning process of the financial resources structure, and other financial indicators used to monitor financial resources of the LLC;
- application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

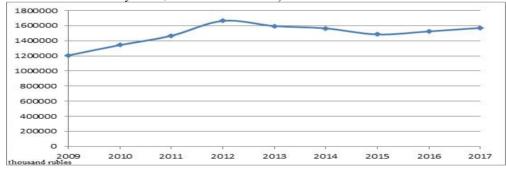
Practical value of the toolkit for assessing the strategic target structure of financial resources LLC:

- 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





**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

			resources, %				
1	2	3	4	5	6	7	
"OPT-TORG", LLC							
2009	98077	1205528	1229,2	4,2	51,548	+ 47,348	
2010	104821	1341968	1280,2	4,0	51,712	+ 47,712	
2011	95204	1465284	1539,1	3,3	51,771	+ 48,471	
2012	134181	1662846	1239,3	4,2	51,844	+ 47,644	
2013	151978	1594513	1049,2	5,0	51,622	+ 46,622	
2014	148876	1563426	1050,2	4,9	51,882	+ 46,982	
2015	152933	1483555	970,1	5,3	51,835	+ 46,535	
2016 progn.		1523595			51,659		
2017 progn.		1569498			51,687		
p. oga.	"Russkaya Mobile Machinery Station", LLC						
2009	5850	203856	3484,7	1,5	51,793	+ 50,293	
2010	16645	383936	2306,6	2,2	51,813	+ 49,613	
2011	36649	418142	1141,0	4,5	51,662	+ 47,162	
2012	59900	460517	768,8	6,7	51,833	+ 45,133	
2013	83374	2763830	3315,0	1,6	51,767	+ 50,167	
2014	302036	3891028	1288,3	4,0	51,862	+ 47,862	
2015	471056	4027966	855,1	6,0	51,629	+ 45,629	
2016 progn.		4681737			51,809		
2017 progn.		5314527			51,742		
			oultry Processing F	Plant", LLC			
2009	78556	897438	1142,4	4,5	51,532	+ 47,032	
2010	78643	1453788	1848,6	2,8	51,832	+ 49,032	
2011	78746	2015667	2559,7	2,0	51,554	+ 49,554	
2012	88820	2542661	2862,7	1,8	51,793	+ 49,993	
2013	101896	2347399	2303,7	2,3	51,836	+ 49,536	
2014	158492	3287634	2074,3	2,5	51,740	+ 49,24	
2015	776451	4254283	547,9	9,4	51,704	+ 42,304	
2016 progn.		4824100			51,820		
2017 progn.		5367890			51,662		
			Wines of Prikumy				
2009	33186	102152	307,8	16,8	51,742	+ 34,942	
2010	33689	109011	323,6	16,0	51,673	+ 35,673	
2011	34659	115287	332,6	15,5	51,583	+ 36,083	
2012	39652	187238	472,2	10,9	51,513	+ 40,613	
2013	46706	235089	503,3	10,2	51,567	+ 41,367	
2014	49895	269716	540,6	9,5	51,589	+ 42,089	
2015	40818	225895	553,4	9,3	51,523	+ 42,223	
2016 progn.		246760			51,558		
2017 progn.	.1 11	267297	7 17 14 1	1 1 4 12 1	51,525		

**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

Iuvie	<b>Tuble 3.</b> 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		

2010	7 8	13	5.4	30.9
	7,6	4,5	3,4	
2011	6,5	8,8	3,9	30,1
2012	8,1	13,0	3,5	21,2
2013	9,5	3,0	4,3	19,9
2014	9,5	7,8	4,8	18,5
2015	10,3	11,7	18,3	18,1

Source: provided by the authors: V. V. Manuylenko, L A. Kabardakova

## **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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