

## **PERSPEKTIVEN FÜR DIE ENTWICKLUNG VON LEASING UNTER BEDINGUNGEN DER MODERNISIERUNG DER WIRTSCHAFT DER REPUBLIK USBEKISTAN**

**Achmedieva Aliya Tokhtarovna**

Assoziierter Professor des Fachbereichs der makroökonomischen Analyse und  
Staatliche Wirtschaftsuniversität Taschkent

**Zusammenfassung:** Der Artikel präsentiert eine Analyse der Besonderheiten der Entwicklung des Leasingmarktes, der Umsetzung der Modernisierung, der technischen und technologischen Umrüstung der Industrien und der Unterstützung der landwirtschaftlichen Produzenten mit den notwendigen Mitteln. Es enthält auch eine Studie statistischer Daten, die die Situation des Leasingdienstleistungsmarktes, die Aktivitäten von Leasinggebern und Leasingnehmern und die Aussichten für die weitere Entwicklung des Leasingdienstleistungsmarktes widerspiegeln.

**Keywords:** Strategie, innovative Technologien, Leasing, Portfolio, Geschäft, Investition, Umrüstung, Ausstattung, Modernisierung, Landwirt, Hebel, Mechanismus

## **PROSPECTS FOR DEVELOPING LEASING IN CONDITIONS OF MODERNIZATION OF THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN**

**Akhmedieva Aliya Tokhtarovna**

Associate Professor of the Department of Macroeconomic Analysis and Tashkent  
State University of Economics

**Abstract:** The article presents analysis of peculiarities of development of leasing market, implementation of modernization, technical and technological re-equipment of industries and supporting agricultural producers with necessary funds. Also it contains a study of statistical data reflecting the situation of leasing services market, activities of lessors and lessees, prospects for further development of leasing services market.

**Keywords:** strategy, innovative technologies, leasing, portfolio, business, investment, re-equipment, equipment, modernization, farmer, leverage, mechanism.

### **INTRODUCTION**

Leasing is an important element of investment activities of business entities and measures stimulating and supporting leasing activity are included in the investment policy of many developed countries. The prevalence and the nature of leasing activity is one of the indicators of level of economic development.

The investment process includes such stages as assessment of financial opportunities, options of investment policy determining the goals and volumes of

investment; asset selection; assessment of investment efficiency, formation of investment solution; its implementation management include leasing mechanisms.

Due to the fact that investment is an important and promising task for development and modernization of productive small and private businesses and industries, the relevance of development trend in leasing sector of Uzbekistan becomes an urgent issue.

Leasing has become one of the most demanded financial services, through which fixed assets are being formed and effectively updated and opportunities to increase borrowed capital can expand.

Therefore, in developed countries the leasing sector accounts for up to 35% or more in total investments sources [1]. Leasing is more flexible tool, since leasing payments can be made in any form convenient for the lessee, with various payment periods in an increasing or decreasing manner. As expected, in the future the leasing services market will grow rapidly. To a certain extent, this will be facilitated by the implementation of new economic development strategy of Uzbekistan for mid- and long term period. Above all, this refers to introduction of new technologies, modernization of production facilities and the economy as a whole oriented to development programs in almost all areas and sectors of industry aimed at output of new competitive products in Uzbekistan.

As part of the implementation, a consistent growth of entrepreneurship is ensured by significant simplification of business procedures, improved infrastructure and expanding financial investment sources. Leasing, as an investment tool, acts as an effective economic and financial mechanism. It has several advantages as compared to traditional investment schemes used for the acquisition and modernization of fixed assets.

At this stage, Uzbekistan has all the prerequisites for further effective development of leasing sector, including the demand in mini-technologies for small businesses and private entrepreneurship in agriculture. The country is actively implementing modernization, technical and technological re-equipment of industries, such as machine-building, chemical, textile-sewing, agricultural, etc., significant transport and communication projects, construction and reconstruction of roadside infrastructure are being carried out today in Uzbekistan. At the same time some agricultural farms do not have sufficient working capital, as well as necessary equipment, material and technical resources. That negatively affected the yield of crops, fulfillment of contractual obligations and profitability of farms in general.

**Analysis of literature.** While transition to the market economy, the issues of development of leasing-based relations, various approaches and opinions have been formed in local and foreign economic science; there can be many debates observed on the need of using leasing services.

An analysis of the problems associated with leasing services is carried out in the works of foreign scientists, first of all, they are T. Clark, A. Jan, S. Lim, M. Loren, I. Hendel, T. Hartman-Wendels, W. Beatty, A. Berger, M. Beiliss, M. Schmit; there are also famous Russian scientists such as I. R. Duna, N.A. Kazakova, V.D. Gazman, V.V. Kovaleva, B.V. Dyakina, V.Yu. Novikova, O.V. Motovilova, S.R.

Moiseeva, Yu.G. Rogovoy, E.P. Shatalova, E.R. Sperbera, N.V. Kudryashova, M.V. Singer.[2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23]

The issues of the economic essence and content, the theory and practice of regulation, the methodology of assessing the effectiveness of leasing operations, the features of leasing services market in specific conditions of market reforms taking place in various countries are also considered in research and are of certain theoretical and methodological interest for further development. A number of works by prominent foreign economists such as I. Fischer, M. Miller, F. Modigliani, Russian scientists G. Birman, V. Livshits, A. Shakhnazarov, S. Schmidt, and others, are devoted to studying the problems associated with development of relevant methodological support and justification.[24,25,26,27,28]

A significant contribution to studying the issues of developing leasing relations was made by local Uzbek scientists, such as D. Gazibekov, E. Gadoev, V. Golyshev, A. Muminova, U. Narov, O. Sobirov, T. Akramov etc.[29,30,31,32,33,34]

However, it should be noted that the issues of developing leasing relations, theoretically and practically, in a view of peculiarities of current stage of economic modernization of Uzbekistan, are not yet sufficiently developed.

Namely in particular, there are poorly considered issues of comparative and system analysis of the existing leasing-based entrepreneurship in foreign countries and in Uzbekistan; there is a lack of comprehensive study of leasing relations; insufficiently identified specifics of leasing instrument for investing and creating leasing services market in the context of modernization of national economy.

During the global financial and economic crisis, the issues of regulatory and stimulating mechanisms for leasing relations have become particularly urgent, especially, their role in enhancing innovative activity of enterprises, both in real sector of economy, and small businesses and private entrepreneurship,.

Also, it should be borne in mind that leasing companies help in promoting innovation, marketing manufactured products, studying and meeting demand as well as assist the lessee to identify shortcomings and improve production technology. The growing investment needs of entrepreneurs are forcing investors to look for new ways to meet this demand. The ever-fluctuating external and internal circumstances in leasing companies' activity urge them to develop a mechanism for adapting to changes.

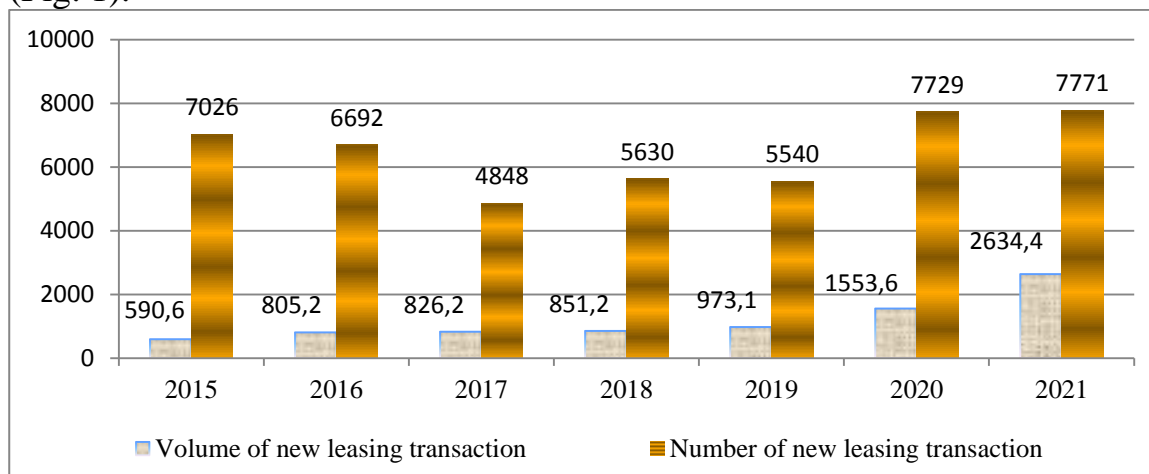
**The research methodology** consists of a set of methods of comparative, structural, functional and statistical analysis, SWOT analysis, a system approach, project management, monographs survey, expert estimates, mathematical forecasting, etc. In addition to quantitative analysis, a method of sociological surveys of participants of leasing relationships are used while the research.

The trend of development of domestic leasing services market is determined by the fact that the demand of small business and private entrepreneurs in high-tech equipment should contribute in the development of leasing relations. The growth of new leasing transactions in 2021 reached 14%, and the leasing portfolio showed an increase of more than 5.5%. By the number of lessors in Uzbekistan, 47 lessors were actively engaged in leasing activities, 15 of them are banks [35].

At the end of 2021, the volume of new leasing transactions amounted to 2.6 trillion. Soums., total portfolio of leasing operations exceeded 4.0 trillion. Soums, however, the portfolio of the National Bank for Foreign Economic Affairs of the Republic of Uzbekistan with total amount of 1 trillion Soums was not taken into account in this total portfolio.

According to the results of 2021, the volume of new leasing transactions increased by 69.6%, which is 1080.8 billion Soums more, as compared to the same period of previous year, and totaled 2634.4 billion Soums.

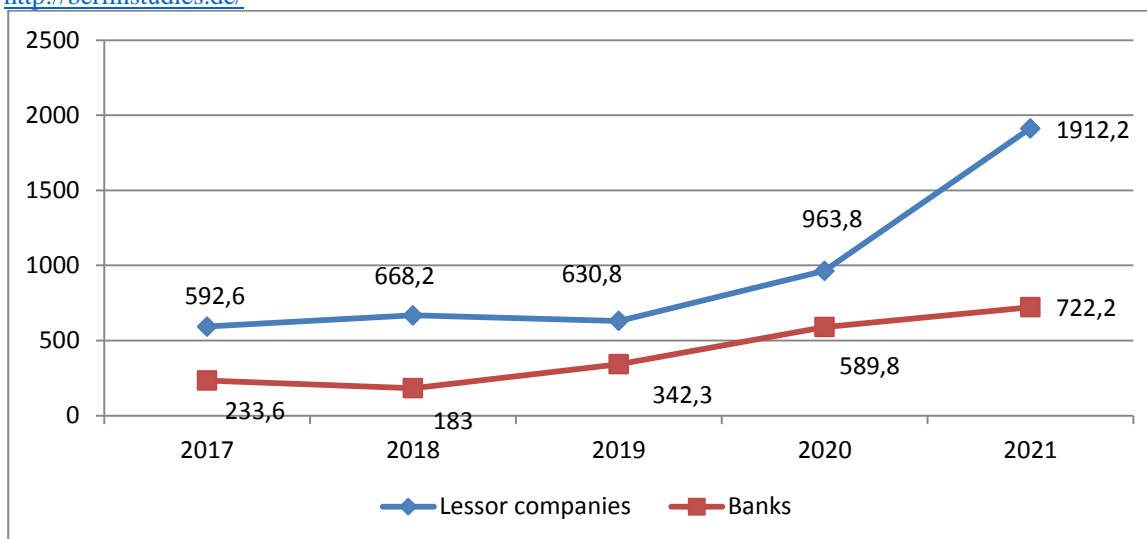
It is worth to be noted that since the end of 2020 the monetary policy of Uzbekistan has been undergoing liberalization and that almost doubled the exchange rate of foreign currencies. The market leaders in 2021 were sectors of agriculture, real estate and transportation vehicles, in particular trucks. Higher market volume was also supported by growth of processing equipment sector. The number of leasing transactions concluded in 2021 slightly increased and amounted to 7771 transactions (Fig. 1).



**Fig. 1 Dynamics of growth in volume and number of new leasing transactions (in billion Soums)<sup>1</sup>**

As compared to 2020, the number of new leasing transactions increased by almost 1%, or precisely, by 42 transactions. The growth trend in the volume of new leasing transactions is distributed through “players” of leasing market as follows: since the end of 2021, 73% of the market belongs to leasing companies. Commercial banks, as compared with 2020, decreased the volume of provided leasing services, so their market share in 2018 dropped down to 27.4%. [35]

The demand level for leasing as an effective type of financial services, implies primarily the growth of economic activity of the country, the growth of entrepreneurship, which is not so much interested today in financial resources rather than in the production means that leasing can provide (Fig. 2).



**Fig. 2 The cost of property of lessors in the leasing market<sup>2</sup>**

The share of the lessors’ property cost in the leasing market falls mainly on lessor companies (1912.2 billion Soums), and banks (722.2 billion Soums), while the total amount of leasing portfolio as of 2021 was 4 trillion 23 billion Soums [35].<sup>3</sup>

The distribution of leasing transactions by types of fixed assets gives an idea of what objects of leasing and how actively the lessors are engaged.

For the first time through the last 20 years of the leasing market, the technological equipment sector has become a leader with a market share of 35.4%; if compared with 2016, this figure was 21.4%/ That indicates the growth of demand in high-tech equipment in recent years (Table 1).

The special demand in technological equipment falls on construction machinery and equipment for production of building materials (115.5 billion Soums), food production equipment (29.2 billion Soums) and textile equipment (26.9 billion Soums).

Among the lessors, by the volume of technology equipment transferred to lessees, the leader are AKB Kapital Bank (47.6 billion Soums), JSC Uzbek Leasing International A.O. (46.2 billion Soums) and JSCB “KDB Bank Uzbekistan” (27.8 billion Soums).

Table 1

**Distribution of leasing transactions by types of fixed assets<sup>4</sup>**

№	Sector	2016	2017	2018	2019	2020	2021	Changes 2021/2013 (-),(+)
1	Agricultural machinery	37,5	34,2	32,9	32,5	36,1	31,2	-6,3
2	Motor transport	24,8	24,4	19,8	14,8	11,8	14,3	-10,5
3	Real estate	16,3	13,7	16,7	16,7	15,7	19,1	2,8
4	Technology equipment	21,4	27,7	30,6	36,0	36,4	35,4	14

In leasing transactions followed by the technological equipment, the second place in 2021 is held by agricultural machinery amounted to 31.2%, which slightly decreased from 37.5% in 2016. The third place is held by real estate sector (19.1%)

and the motor transport stands in fourth place (14.3%). There is also a positive upward trend observed in provision of vehicle leasing,. The volume of new leasing transactions in the automotive sector increased by 194.5 billion Soums and reached 377.3 billion Soums which is twice as high as in 2020.<sup>5</sup>

The review of scientific literature shows that presently, leasing, as a profitable instrument of investment, is of great importance for the development of production facilities [36]. In order to identify the role and significance of leasing operations in modernization of sectors of economy of Uzbekistan, a sociological survey of managers of lessor companies was conducted (Table 2).

Table 2

**In your opinion, in what sectors the leasing is the most effective from the view of modernization?<sup>6</sup>**

№	In your opinion, in what sectors the leasing is the most effective from the view of modernization?	Respondent's answer
1	Engineering sector	4,2%
2	Transportation	13,5%
3	Agriculture	25,5%
4	Construction	21,3%
5	Light and food industries	25,1%
	Other	10,4%

Hence, according to the experts from leasing companies, the use of leasing, from the view of industrial modernization, is most effective in agriculture sectors (25.5% of answers) and light and food industry (25.1%). It should be noted that in the structure of leasing market by types of property, prevails various types of agricultural machinery (up to 31.2% of leasing portfolio).

The segments with the smallest share in portfolio, according to experts, the most promising but "underestimated" at the same time is the segment of engineering equipment (4.2%) which needs additional incentives.<sup>7</sup>

The analysis of practical use of leasing tools between business entities shows that their interaction is predetermined by specific property relations.<sup>8</sup>

In 2017, the leasing industries of most countries worldwide showed a steady and progressive move forward. 54 leader countries in the leasing market showed that the volume of new business in the field of leasing services increased by 16.6%, from 1,100 billion (2016) to 1,282 billion US dollars (2017) (Table 3).

Table 3

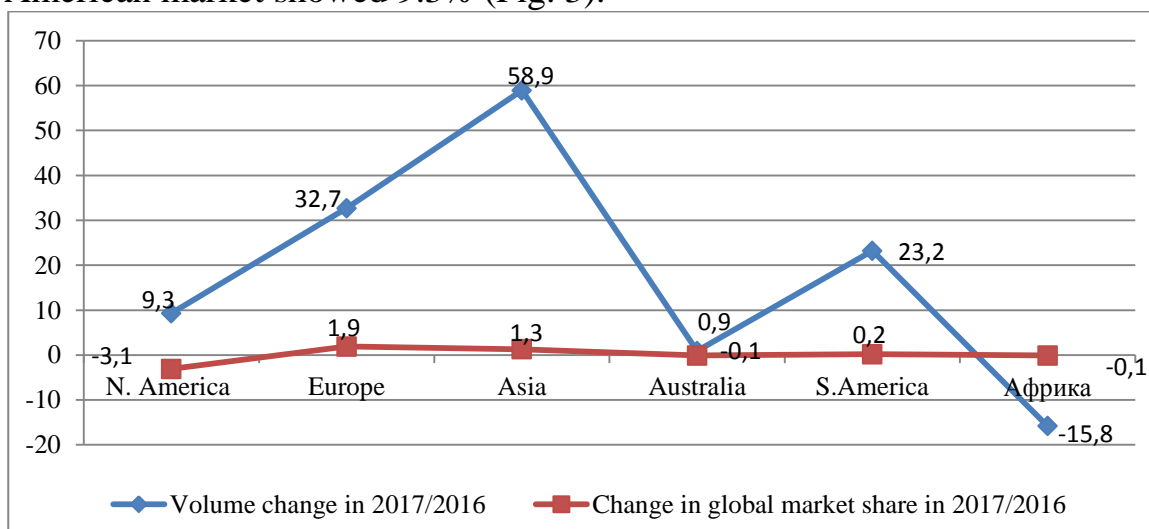
**Dynamics of changes in volume of new business by regions in 2008-2017(in billion US dollars)[37]**

Region	2008	2010	2012	2014	2016	2017	Changes 2008/2017
N. America	226.1	213.3	336.4	368.4	416.8	445.9	219,8
Europe	336.7	233.0	314.0	327.8	346.3	428.3	91,6

Asia	99.2	105.6	180.2	195.0	289.9	354.4	255,2
S.America	54.2	25.4	13.2	10.7	12.9	17.0	-37,2
Australia	6,9	10.8	16.1	35.6	28.4	31.5	24,6
Africa	9,6	6,4	8.2	6.8	5.4	5.7	-3,9
Total	732.8	594.5	868.0	944.3	1,100	1,283	550,2

The volume of new business in the field of leasing services in 2017 exceeded the previous year's figure by \$182 billion. Three regions, Europe, North America and Asia, controlled 95% of the global leasing market.

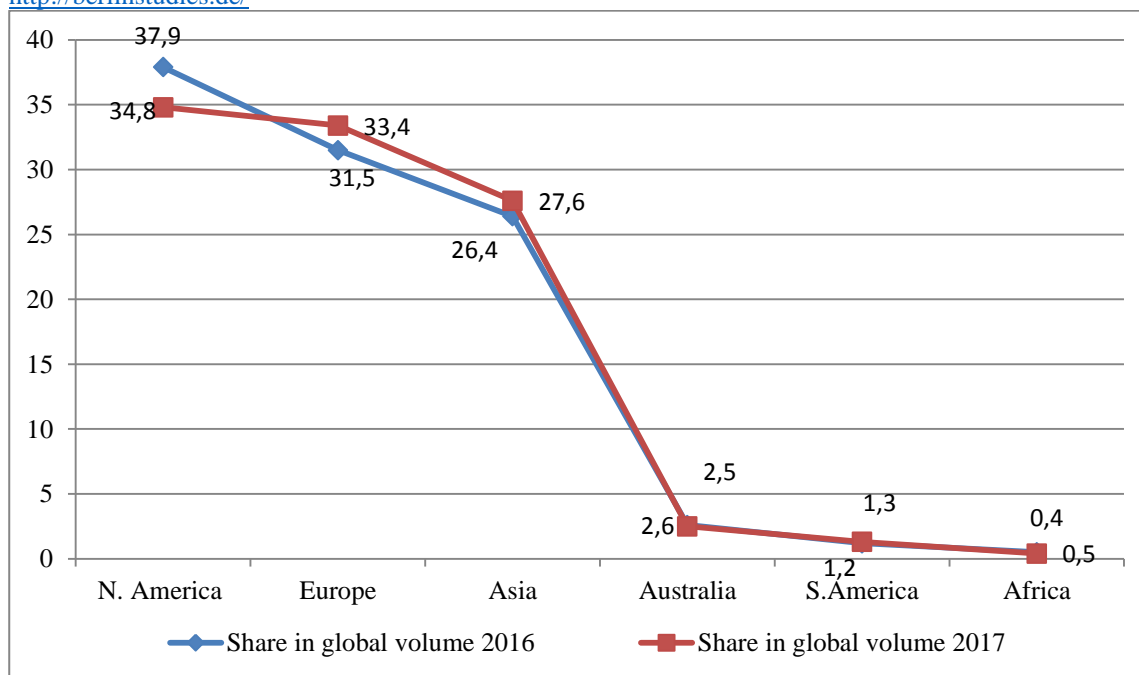
The maximum growth as compared to 2016, was observed in Asian leasing market (58.9%), the European market grew with a dynamics of 32.7%, and the North American market showed 9.3% (Fig. 3).



**Fig. 3. Dynamics of changes in the volume and share of the global leasing market for 2017-2016[37]**

Moderate growth was observed in the markets of Australia and New Zealand (1%,) as well as in South America (23.2%). The only market where the recession was observed was the African leasing market (15.8%)

If compare the share of countries in global volume of leasing market for 2016 and 2017, we can see that some countries shows declined progression while others increase (Fig. 4).



**Fig. 4. A comparative analysis of share in the global volume of leasing market for 2016-2017[37]**

Obviously, with existing growth rates the leasing markets of Europe, North America and Asia will become equal in volume of new business within the next year or two. For Europeans it took a decade to restore the volumes of the pre-crisis level of 2007. Over the same period the volume of new business in North America increased almost 1.9 times, in Asia 4.2 times, in Australia 7.7 times. In the period from 2007 to 2017 the countries of South America decreased the volume of new business by 2.4 times, in Africa by 2 times[37]. A favorable market infrastructure and legal framework have been created, both for lessors and lessees of the country[38].

A developed leasing services strengthens the productive sector of the economy by creating conditions for accelerated development of strategically significant industries, and stimulating the capital inflow in manufacturing sectors.

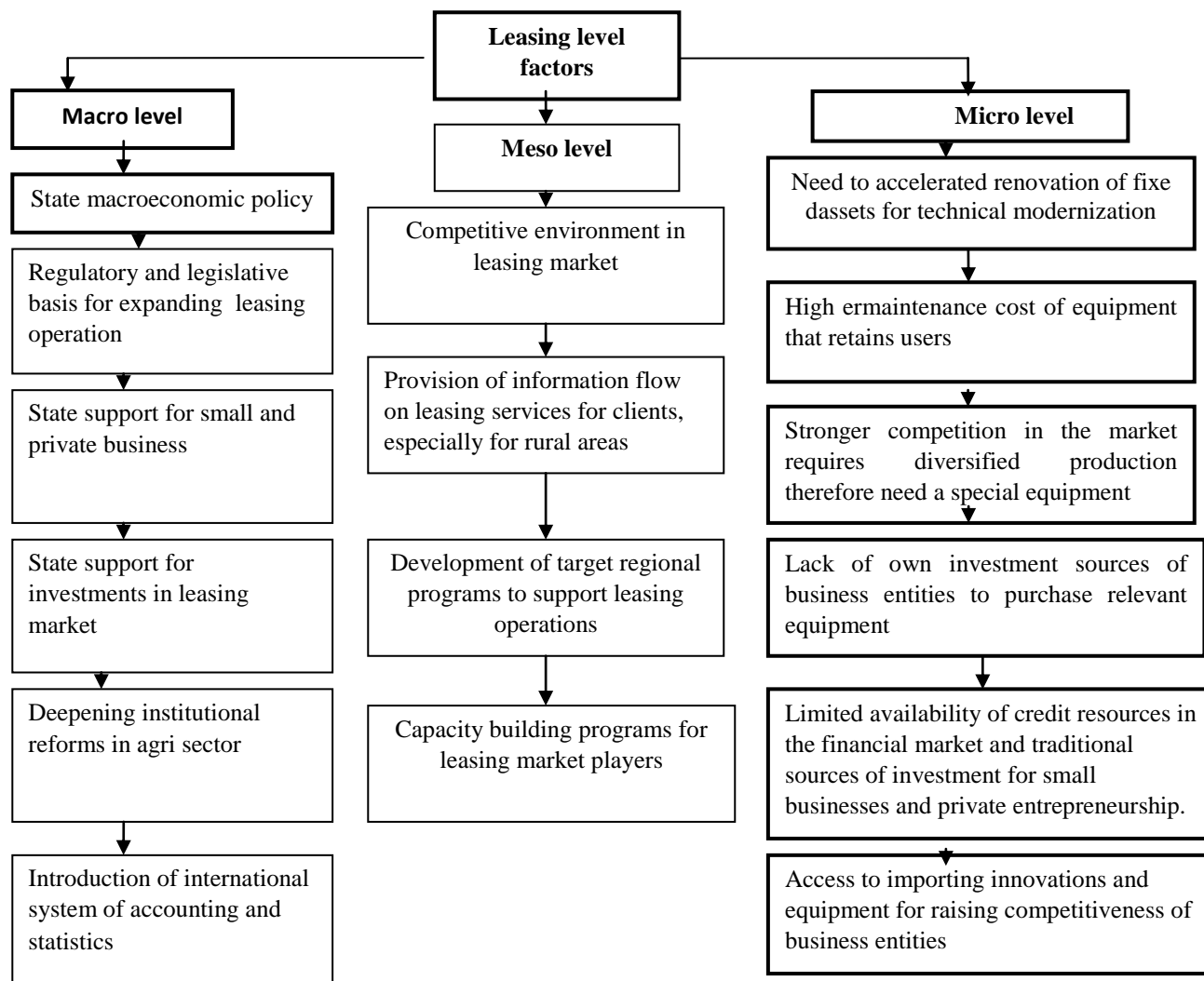
In developed countries, the role of the governments in supporting leasing activities become a system-forming factor in the whole country's investment policy. Leasing services increase the interest of Western companies in getting additional guarantees of funds repayment.

In other countries leasing is in high demand due to increased investment needs in economy and due to the existing innovation processes that could no longer be satisfied with traditional financing channels.

Leasing relations develop being influenced by a number of production factors which provide, on the one hand, involvement of leasing entities in budgeting and, therefore, in solving socio-economic problems, and, on the other hand, help in ensuring expanded reproduction and providing market with necessary products.

There are three groups of factors underlying the formation and rapid spread of leasing business worldwide and that can be considered from the perspective of macro-, meso- and micro-levels (Fig. 5).





**Fig. 5 Factors effecting leasing business<sup>9</sup>**

Macro level factors are related to the rules and characteristics of macroeconomic policy, specific regulatory atmosphere; meso-level considers regional aspects of the development of leasing services; micro level refers to the needs at the enterprise level.

Besides, there are also factors impeding and inhibiting the growth of leasing in the country. This could be the quality of certain legislative and regulatory standards for tax and accounting, inconsistent legal and organizational issues on leasing of certain types of property (real estate, for example); restrictions in use of leased assets only for business purposes, limited customer information, inconsistent methodology in statistics of leasing.

However, despite the shortcomings above, the competition between national leasing companies intensifies, and that helps accordingly to improve the quality of services. For domestic leasing market, changes in volumes is less important rather than quality changes. Every year new types of lease properties appear that are in high demand for lessees.

Within the research, the results of self-assessment of lessors' activity and

factors affecting their business were analyzed. The results of the analysis are shown in Table 4.

According to the survey the factors negatively affected their lessors' business in 2020 were: (scored 1 to 5):

- complexity in access to loans (3.56);
- high cost of loans (3.43);
- limited volume of resources (3.37);
- high investment risks (3.32).

Every year new types of leasing property are created and allocated, which are in high demand among lessees.

Table 4

#### Factors adversely affecting the activities of leasing organizations in 2020<sup>10</sup>

№	Factors	Respondents, %
1	Complexity in receiving loans	3.56
2	Higher cost of loans	3.43
3	Limited volume of resources	3.37
4	High investment risks	3.32
5	Higher competition in lessors' market	3.06
6	Tax burden	2.35
7	Insurance tariffs	2.18
8	Poor demand in leasing services	2.16
9	Currency exchange rate fluctuations	2.14
10	Inflation rate	1.93
11	Poor level of IT	1.76
12	Quality of Laws	1.73
13	Other	

Despite a minor decline in the growth rate, the leasing services market of the country still has a significant potential to grow (Table 5). According to experts' opinion, the sustainable economic growth is the most important factor for further development of leasing-based business (38.5%).

Table 5

#### In your opinion, what conditions are required for developing leasing market?<sup>11</sup>

№	What conditions are required for developing leasing market?	Respondents, %
1	Lower cost of borrowed funds for lessor companies	<b>21,3</b>
2	Extended tax preferences	<b>6,1</b>
3	Stable macroeconomic growth	<b>38,5</b>
4	Development strategy and regulation system for leasing sector	<b>9,2</b>
5	Easier access to financial resources	<b>15,6</b>
	Other	<b>9,3</b>

The next important conditions for the market development, according to lessors, should be the lower cost of loans for leasing companies (21.3%) and easier access to financial resources (15.6%).

In this light, the development of leasing relations in the country is due to the following objectives:

- modernization and higher efficiency of investment policy in leasing sector;
- development of processing industries, manufacturing sectors and transport

infrastructure;

-interaction with development institutions in attracting domestic and foreign investments in the country's economy.

Our research shows that in Uzbekistan, leasing company can be engaged in creating a value chain within agriculture cluster while renovation or creating new enterprises for processing raw materials and manufacturing end products.

We believe that a special development program 'Leasing for modernization of agro-industrial complex' should be proposed to support setup and functioning enterprises producing higher added value goods and thus attracting investments for expanding economic activity. Such program should be targeted at creating favorable environment for development of production through diverse leasing models. The complete and integrated servicing of the lessee in cooperation with other development institutions, commercial entities, industrial zones and techno parks is the core of proposed idea and that will greatly improve the quality of leasing relations.

The introduction 'Leasing for modernization of agro-industrial complex' concept might be implemented by the following models:

- credit + leasing;
- equity + leasing;
- consulting + leasing;
- venture leasing;
- territorial leasing;
- involvement of corporate entities;
- "turnkey" leasing of industrial buildings;
- leasing package for corporations;
- "technology + equipment" import.

Summarizing current changes in the leasing services market in Uzbekistan, the following conclusions can be drawn: marketing, logistics and engineering become integral attributes and components of leasing-based investment projects, especially in large-scale industrial and infrastructure projects related to technological renovation, innovations and diversification of production, especially in development of processing industries.

There is a tendency observed in Uzbekistan, showing the transition from traditional leasing for supplying individual equipment (single piece deliveries) to the concept of technological leasing through complete deliveries of new equipment and introducing advanced technologies for certain individual enterprises. Then it transforms to the concept of cluster leasing where equipment and technologies are interconnected within regional industrial and agri-food clusters and that will give a multiplied synergy effect.

In author's opinion, lessor companies should use a variety of financing sources and relevant strategies. The strategy of financing includes use of available financial sources in a certain combination and logical sequence so that to secure sufficient financing, minimal cost, and minimized risks.

A survey among lessors shows that the investment attractiveness of leasing

companies will be determined, first of all, by the level of overdue debts in the company (Table 6).

Table 6

**What do you think will determine the investment attractiveness of leasing companies?<sup>12</sup>**

№	What do you think will determine the investment attractiveness of leasing companies?	Respondents' answer
1	Overdue debt level	31,2%
2	The scale of the clients base	11,3%
3	Company's competitive position (market share)	13,6%
4	Share of own funds in financial resources	24,5%
5	The company's specialization in highly liquid types of equipment	13,3%
	Other	6,1%

According to respondents, the main factor of attractiveness depends on level of overdue debt (31.2%). Secondly, the share of own equity in financing sources of (24.5%). The competitive positioning of the company (share in the market), according to experts, seems to be in the third place. Finally, only 11.3% of experts stated that a diversified client base is important for investment attractiveness of the company.

Considering the survey and analysis of foreign practice in statistics of leasing transactions, two indicators should be taken as the major volumetric indicators characterizing the development of leasing market:

- Volume of new businesses (the cost of new leasing agreements concluded within the reporting year). V.D. Gazman called this indicator as “Cost of newly concluded and financed leasing agreements within a year”[39].

- leasing agreements portfolio (the amount of leasing payments due under ongoing agreements that lessees yet have to pay to lessors). In other words, a leasing portfolio is a sum of lessees' obligations (debts) on a certain date.

Based on the results of quantitative and qualitative analysis of the leasing market in Uzbekistan, we compiled a SWOT analysis revealing strengths and weaknesses of the market and showing new opportunities and threats in the future (Table 7).

Table 7

**SWOT-analysis of leasing market of Uzbekistan<sup>13</sup>**

Strengths (internal)	Internal opportunities
-Government support for leasing programs in	- Using leasing as an effective leverage for

<p>priority sectors of economy.</p> <ul style="list-style-type: none"> <li>-Unification and harmonization of leasing regulation.</li> <li>- Incentives and preferences in tax, depreciation, customs, investment within leasing projects.</li> <li>-Simplified judicial and administrative procedures for seizure of leased asset from an unscrupulous lessee.</li> <li>-Public-private partnership in leasing operations.</li> </ul>	<p>strategic national, sectoral and regional investment development programs.</p> <ul style="list-style-type: none"> <li>-Introduction of new leasing programs, products and services.</li> <li>-Diversification of financing sources for leasing activities.</li> <li>-Using stock market mechanism for developing leasing services.</li> <li>- Better conditions for active attraction of foreign investments.</li> </ul>
<b>Weaknesses (external)</b>	<b>External threats</b>
<ul style="list-style-type: none"> <li>- Instability of private lessor companies operating in the market.</li> <li>- Unreliable and limited funding sources for leasing.</li> <li>-Lack of long-term money in the investment process.</li> <li>-Insufficient openness of lessors.</li> <li>-Lack of quality statistical reporting and information.</li> <li>-Insufficient diversification of leasing agreements structure by commodity, sectors and regions</li> </ul>	<ul style="list-style-type: none"> <li>- Large foreign lessor companies to enter local market.</li> <li>- Instable regulations on leasing(frequent changes in regulatory acts).</li> <li>-Inflation, rise in cost of financial resources attracted by leasing companies.</li> <li>- Deterioration of quality of assets and leasing portfolio in whole; higher risks in leasing activities.</li> <li>-Low capitalization of leasing companies.</li> </ul>

Following the sociological survey conducted among experts of leasing companies (Uzselkhoz mashlizing JSC, Uzmeliomashlizing JSC, etc.), the factors effecting the development of the leasing services market were ranked (Table 8).

Since expert estimates offer random variables, it is necessary to quantify the consistency of their opinions. To assess the concurrence of expert opinions, we recommended to apply the concordance coefficient, including the following steps:

**Step 1. Creation of an expert committee.**

The number of factors  $n = 9$ , The number of experts  $m = 9$

**Step 2. Collecting experts opinions through a questionnaire.**

The experts assess the level of significance of parameters by assigning a rank (score) number.

The highest rank by experts is scored 1. If the expert recognizes several factors as equal in degree, then the factors have the same rank number.

Table8

**Priorities ranking of leasing market growth factors<sup>14</sup>**

	Expert estimates	Weight	Devi ation	Devi ation squa	Conc orde
--	------------------	--------	---------------	-----------------------	--------------

Factors		1	2	3	4	5	6	7	8	9	Sum of rank score	Priority level		
x <sub>1</sub>	Lack of long-term financing	3	1	2	1	2	2	1	2	2	16	2	-29	841
x <sub>2</sub>	Lack of sufficient loans	1	2	1	3	1	1	2	1	1	13	1	-32	1024
x <sub>3</sub>	Low demand in leasing services by clients	4	5	6	4	5	5	6	4	5	44	4	-1	1
x <sub>4</sub>	Lack of solvent clients	2	3	3	2	3	4	3	3	4	27	3	-18	324
x <sub>5</sub>	Raising professional qualification	6	6	5	7	6	6	9	6	9	60	6	15	225
x <sub>6</sub>	Lack of modern accounting system	8	7	9	8	7	8	8	8	6	69	9	24	576
x <sub>7</sub>	Regulatory contradictions and shortcomings	7	8	8	9	8	7	7	5	7	66	8	21	441
x <sub>8</sub>	Need to diversify transactions by equipment types	9	9	7	5	9	9	5	9	3	65	7	20	400
x <sub>9</sub>	Better financial stability	5	4	4	6	4	3	4	7	8	45	5	0	0
	∑	45	45	45	45	45	45	45	45	45	405			3832
	Total													0,788

Then, based on the questionnaire, a composite ranking matrix is compiled.

**Stage 3. Compilation of a composite ranking matrix.**

where, 
$$d = \sum x_{ij} - \frac{\sum \sum x_{ij}}{n} = \sum x_{ij} - 45$$

Checking correctness of the matrix based on calculation of checksum:

$$\sum x_{ij} = \frac{(1+n)n}{2} = \frac{(1+9)9}{2} = 45$$

The sum by columns of the matrix is equal to each other and to the checksum; that means the matrix is compiled correctly.

The Table shows the distribution of factors of market growth ranked by priorities.

**Step 5. Estimation of the average degree of concurrence of opinions of all experts.**

Formula for calculating the coefficient of concordance

$$W = \frac{12S}{m^2(n^3-n)}$$

where S = the total of squares of ranks sums deviations (answers given by all experts to each question) from the average value of ranks sum for a given research subject

$$\begin{aligned} S &= 3832, \\ n &= 9, \\ m &= 9 \end{aligned}$$

$$W = \frac{12 \cdot 3832}{9^2(9^3-9)} = 0.788$$

W = 0.788 reflects a higher degree of concurrence of experts opinions.

**Step 6. Assessment of the significance of concordance coefficient.**

For this purpose, we calculate the Pearson concordance criterion:

$$\begin{aligned} \chi^2 &= \frac{12S}{mn(n+1)} = n(m-1)W \\ \chi^2 &= 9(9-1)0.788 = 56.77 \end{aligned}$$

The calculated  $\chi^2$  is then comparable with the table value for the number of freedom degrees

$$K = n-1 = 9-1 = 8 \text{ and at a given significance degree } \alpha = 0.05$$

As  $\chi^2$  calculated 56.77  $\geq$  table value (15.50731), then W = 0.788 is not random value, therefore the results derived make sense and can be used in further research.

**Step 7. Preparation of expert committee decision.**

Having the sum of ranks (table 9), we can calculate the weight of parameters.

For this we transform the survey matrix into a matrix (table) of transformed ranks by the formula

$$S_{ij} = X_{\max} - X_{ij}.$$

$$\text{where } X_{\max} = 9$$

The value of concordance coefficient within the limits

$$0 < W < 1. \quad W = 0$$

means the complete opposite of expert opinions, and

W = 1 — complete match of rankings. In practice, the reliability of the expert estimates is considered good if

$$W = 0,7 \text{—} 0,8.$$

Since the coefficient of concordance measures the consistency of experts opinions, its value is equal 1 if experts opinions coincide. If the difference in opinions is large, the coefficient of concordance tends to zero. In our case, it is closer to 1.

Table 9.

**Matrix of transformed ranks<sup>15</sup>**

Experts	1	2	3	4	5	6	7	8	9	$\Sigma$	Weight $\lambda$
1	6	8	7	8	7	7	8	7	7	65	0.2006
2	8	7	8	6	8	8	7	8	8	68	0.2099
3	5	4	3	5	4	4	3	5	4	37	0.1142

4	7	6	6	7	6	5	6	6	5	54	0.1667
5	3	3	4	2	3	3	0	3	0	21	0.06481
6	1	2	0	1	2	1	1	1	3	12	0.03704
7	2	1	1	0	1	2	2	4	2	15	0.0463
8	0	0	2	4	0	0	4	0	6	16	0.04938
9	4	5	5	3	5	6	5	2	1	36	0.1111
Total										324	1

Expert assessments show that a number of problems need to be solved in the mid- and long-term forecast period of leasing market development in Uzbekistan, such as:

- Lack of sufficient sources for loans;
- Lack of long-term loans;
- Lack of solvent clients;
- Low clients' demand for leasing services;
- increase financial stability, etc.

The following structure of leasing transactions can be proposed for Uzbekistan:

- methods for calculating leasing payments (interest calculating);
- The order and conditions for concluding leasing agreement;
- methodology to review solvency of business entities (analysis of financial status of potential lessees);
  - the financial weakness of newly created leasing companies, the lack or insufficiency of starting capital to run business resulting in lack of trust from banks and other financial institutions;
  - Lack of qualified specialists for leasing companies;
  - Poor knowledge on the nature of leasing and its advantages among potential lessors and lessees;
  - lack of leasing market infrastructure, lessors' networking, brokerage and consulting firms and no entities for servicing all players in the leasing market;
  - Poor information support of leasing, limited access to the information on actually offered leasing services.

In perspective, the factors ensuring the growth in volume of the leasing market will be:

- Growth in volume of business and increased need for modernization of fixed assets in the mid- and long term;
- Faster growth in the volume of new leasing business as compared to loans;
- State programs to support leasing in priority sectors of the national economy;
- Special actions with suppliers and preferential conditions for transactions;
- development of additional associated services;
- Growth of the client base due to a wider range of PD (Probability of default) indicators of clients;
  - stimulating the demand for leasing by intensifying marketing activities with clients and developing a strategy for attracting customers.

During the study, the following development scenarios for Uzbekistan were

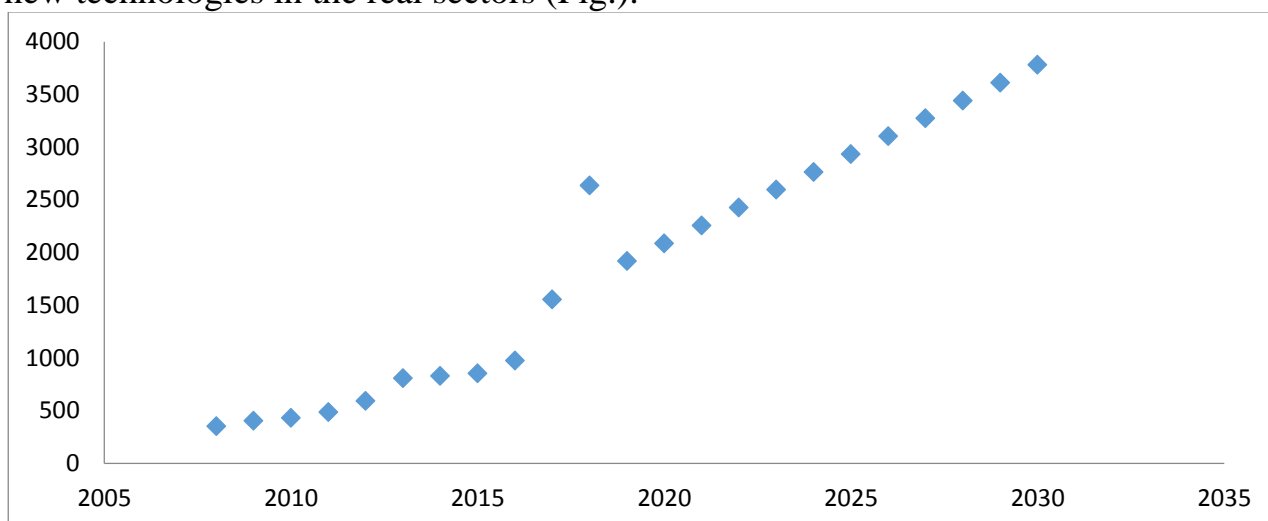


considered in terms of volume of leasing services:

- inertial scenario which maintains existing trends of development of the national economy and leasing services sector, and that would stimulate investment processes within the existing growth rates and within existing institutional mechanisms of leasing operations; while this the leasing companies will not be sufficiently developed;

- Modernization scenario, with distribution of attracted investments are rearranged for development of priority sectors of the national economy; that implies reconstruction and update of fixed assets. However, it needs an effective system of government support to raise competitiveness of the national economy in whole;

- innovative scenario implies a set of institutional changes aimed at creating long-term competitive advantages of the national economy through favorable investment climate, including increase of potentials of lessor companies to introduce new technologies in the real sectors (Fig.).



**Fig.6 Scenario-based forecast for leasing transactions<sup>16</sup>**

(Leasing transaction volume Polynomial )

The leasing, therefore, is considered as an important financial instrument for economic growth of Uzbekistan that significantly expand and raise investment opportunities of enterprises to a new level, especially for small and private business. Despite existing contradictions in legislation, taxation rules, accounting and customs procedures and regulations applied in leasing sector, most of the market players believe that the stability of the national economy will contribute to the development of leasing relations.

## References

- 
- <sup>1</sup>Compiled by author on the basis of Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
  - <sup>2</sup> Compiled by author on the basis of Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
  - <sup>3</sup>Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
  - <sup>4</sup> Compiled by author on the basis of Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
  - <sup>5</sup>Compiled by author on the basis of Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
  - <sup>6</sup>The interview of Uzbek lessor companies' managers was conducted by the author
  - <sup>7</sup>ibid
  - <sup>8</sup>ibid
  - <sup>9</sup>Compiled by author on the basis of scientific bibliography
  - <sup>10</sup>Compiled on the basis of interviews of lessor companies of Uzbekistan
  - <sup>11</sup>Compiled by author
  - <sup>12</sup>Compiled on the basis of interviews of lessor companies of Uzbekistan
  - <sup>13</sup>Compiled on the basis of interviews of lessor companies of Uzbekistan
  - <sup>14</sup> compiled by author
  - <sup>15</sup>author's calculations
  - <sup>16</sup> author's calculations
  17. V.S. Lukashov / Economic analysis: theory and practice, Global trends in the development of leasing as one of the fundamental instruments of investment in the country's economy 2017, т. 16, п. 6, стр. 1097–1107 <http://www.fin-izdat.ru/journal/analiz/>
  18. Clark, D.. Leasing/ D. Clark. London: McGraw. Hill Book Company (U.K.) Limited, 1978. - 342 p.,
  19. Yan, A. Leasing and debt financing: substitutes or complements / A. Yan // Journal of Financial and Quantitative Analysis. -2006. -№ 41 (3). - P. 709-731., .
  20. Lim, S. Do operating leases expand credit capacity? Evidence from borrowing costs and credit ratings / S. Lim, S. Mann, V. Mihov // Journal of Corporate Finance. - 2017. -№ 42. - P. 100-114,
  21. Laurent, M. Estimating distressed LGD on defaulted exposures: a portfolio model applied to leasing contracts/ M. Laurent, M. Schmit // Altman, E., Resti, A.,
  22. Sironi, A. (Eds.) Recovery Risk: The Next Challenge in Credit Risk Management. Risk Books. - 2005. - P. 307-322,
  23. Hendel, I. The Role Of Leasing Under Adverse Selection / I. Hendel, A. Lizzeri // Journal of Political Economy. - 2002. -№ 110 (1). - P. 113-143.,
  24. Wendels, T. Loss given default for leasing: Parametric and nonparametric estimations / T. Hartmann-Wendels, P. Miller, E. Tows // Journal of Banking & Finance. - 2014. -№ 40. - P. 364-375.,

25. Beattie, V. Operating leases and the assessment of lease-debt substitutability / V. Beattie, A. Goodacre, S. Thomson // *Journal of Bank Finance*. - 2000. -№ 24. - P. 427-470., .
26. Berger, A. More Complete Conceptual Framework for Financing of Small and Medium Enterprises / A. Berger, G. Udell // *World Bank Policy Research*. -2005. -№ 3795. - P. 234-236.,
27. Bayliss, M. E. An empirical study of the debt displacement effects of leasing / M.E. Bayliss, D.J. Diltz // *Financial Management*. - 1986. -№15. - P. 53-60.,
28. Schmit, M. Credit risk in the leasing industry / M. Schmit // *Journal of Banking & P*. 811–833.– 2004. -№ 28. –Finance., .
29. Kazakova, N. Analytical study of sustainable development of the region/ N. Kazakova, I. Dun, A. Bolvachev // *International Education Studies* - «Stanford P.154-160– 2015.- № 2 (16), –UniversityPress».,
30. Gazman, V.D. Leasing of Russia research project. Part three / V.D. Gazman // *Leasing-Review*. Moscow: 2017., Kovalev, V.V. Leasing: financial, accounting, analytical and legal 448 p. 2016. Moscow: Prospect, aspects / Vit.
31. V. Kovalev, Dyakin, B.V. Leasing – a promising form of market management 150/B.V. Dyakin, V.A. Panyushkin, N.A. Tulukova. - Moscow: ROSBI. 1992.,
32. Novikov, V.Yu. Choosing the optimal structure for financing leasing operations / V.Yu. Novikov // *Izvestiya St. Petersburg S*. 125-127. 2011. -№ 2 (68). □ University of Economics and Finance. ,
33. Motovilov, O.V. Financial lease: features of legislative regulation and economic benefits of application / O.V. Motovilov // 2005. -Bulletin of St. Petersburg University. Series 5. Economics. pp. 126-136.Issue 4.
34. Moiseev, S.R. The financial situation of the largest leasing companies: the results of a study by the Bank of Russia / S.R. Moiseev, A.K. S. 52-54. 2017. - No. 2. Morgunova // *Money and credit*.,
35. Rogova, Yu.G. Risk management of a leasing company / Yu.G. Rogova // *Development of modern science: theoretical and applied aspects*. P. 58-61.2017. -№ 22.,
36. Shatalova E. P. Assessment of the financial condition of the borrower - leasing S.2-5 2014. -№ 5. companies / E.P. Shatalova // *Bank lending*.,
37. Shperber E. R. Leasing: development trends / E.R. Shperber // *Leasing*. pp. 7-12.2016. -No. 5.,
38. 22.Kudryashova, N. V. Financial situation and risks of the leasing company 2017./ N.V. Kudryashova // *Bulletin of the Russian University of Cooperation*. P. 38-41.□-№ 2 (28).,
39. Singer M. V., Cherevichenko T. S. The concept of a financial lease and leasing agreement under Russian and foreign legislation // *Modern scientific research and development*. 2017. No. 8 (16). pp. 205-207
40. Fischer S., Gelba A. The Process of Socialist Economic., Miller M., Upton. C. Leasing, Buying ... 932 c. 77.,

41. F. Modigliani, M. Miller " The cost of capital, corporation finance and the theory investment".,
42. Burman. Economic analysis of investment projects translated from English ed. Belykh L.P. M., Banks and Exchanges 1997.,
43. Livshits V.N., Shakhnazarov A.G. M.: Economics, 2000., Shakhnazarov A. G. Methodological recommendations for evaluating the effectiveness of investment projects and their selection for financing. - M.: NPCC "Terinvest", 1994.,
44. Schmit, M. Credit risk in the leasing industry / M. Schmit // Journal of Banking &P. 811–833.– 2004. -№ 28. –Finance
45. Gazibekov D.G., Sabirov O.S. Leasing and its development in Uzbekistan.– Tashkent, 2015. – from 131, "Foydasoligi",
46. Gadoev E.F. vaboshkalar ... Vazirlarmaxkamasining 18.06.2019 yildagi 512-dream karoribilanularni ...
47. Golyshev V.V. Leasing as a factor of activation of investment policy in the Republic of Uzbekistan. Ph.D. in Economics dis.. Aftoref – Tashkent, 2011, p. 17.;
48. Sobirov O.S. The current state of leasing relations in the Republic of Uzbekistan and the main directions of their further improvement. Vol.: 2010.–156c,
49. Muminov A. G. Leasing is a service in combination with finance, and not only, – Tax and Customs news No. 21, 2007, p. 11.,
50. Akramov T. Recommendations for conducting leasing operations / / Economic Bulletin of Uzbekistan №1 2008g.
51. Report of Association of lessors of Uzbekistan "Overview of the leasing services sector in Uzbekistan in 2022"
52. Lyashenko V.I. The use of leasing in the development of entrepreneurship and investment abroad. / V.I. Lyashenko, V.V. Berezhnoy / NAS of Ukraine. Institute of Industrial Economics. – Donetsk, 1997. – 84 p.
53. White Clarke Group Global Leasing Report Changes in new business by continents in 2017-2008
54. International Finance Corporation Report on three-year project on technical assistance to Uzbekistan for developing leasing sector. April 29, 2009 ifc-zavershila-proekt-po-sodeystviyu-razviti-lizingovogo-sektora-v-uzbekistane
55. Gazman V.D. "The cost of newly concluded and financed leasing contracts during the year" 2008