Specificity assessment and management of financial stability of construction companies

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Abstract. The purpose of the scientific article is to identify the features of assessing and managing the financial stability of construction companies. The object of this study is entrepreneurial activity in the construction sector. The subject of the study is specific aspects of analysis and management of financial stability in construction organizations. To achieve this goal, the following tasks are set: 1) determining the features, problems and trends in the development of the construction industry in Russia; 2) identifying the specifics of the functioning of finance in the construction sector; 3) systematization of factors that affect the activity of enterprises in the construction sector; 4) assessment of the financial stability of the construction company, taking into account the regulatory and industry average values. A classification of factors affecting financial stability by a number of system-forming features is proposed. The most significant indicators for assessing the financial stability of construction companies are determined, taking into account the industry specifics for making management decisions.

1. Introduction
Construction is “the creation of buildings, structures, and structures (including on the site of demolished capital construction projects)” [1]. The construction industry has a significant impact on the competitiveness of the Russian economy, as the construction sector is one of the top five Russian segments that make up more than 40% of the gross value added structure, for example, in 2018 this figure was 5.7% compared to 6% in 2017. [2].

The study of the specifics of the financial condition and identification of problems in the construction sector is important for making management decisions at the enterprise. The competitiveness of an enterprise depends on the rational management of financial resources [3]. Modern conditions for the construction of buildings and structures, increased competition, and its imperfection have dramatically increased the need to effectively manage the financial stability of construction organizations.

2. Materials and methods
The concept of financial status abroad is mainly identified with financial position and financial sustainability. Important indicators are solvency, cost recovery and repayment of obligations, the
ability to create an innovative product from existing resources and receive income at the same time [4]. Foreign practice of assessing the financial condition is sometimes identified with the analysis of financial statements or the activities of the enterprise as a whole [5], [6], [7]:

In Russian practice, the interpretation of the financial state and the essence of the analysis of the financial state differ depending on the approach of a particular author. Some authors define the financial condition of an enterprise as “an economic category determined by the composition and placement of funds, the structure of their sources, the speed of capital turnover, the ability of the enterprise to repay its obligations on time and in full, as well as other factors” [8]. Other authors identify the financial state with “the state of capital in the process of its circulation and the ability of the subject to self-development at a fixed time” [9]. Despite different approaches to determining the financial condition and methods for determining it, the main aspect of the analysis is to assess the effectiveness of using financial resources to make decisions about the need to regulate their volume.

3. Results

Financial stability of a construction company is a characteristic of its activity and financial well-being, the result of its current, financial and investment development, contains the necessary information for the investor, reflects the company's ability to fulfill its obligations and is a forecast of further development. A financially stable company has advantages in attracting investments, obtaining loans, and selecting suppliers and consumers [10]. Such a company is more independent from unexpected changes in market conditions, therefore, the risks of becoming insolvent and being on the verge of bankruptcy are minimized.

In general, the objective conditions for the functioning of the construction “industry” led to the fact that recently in Russia there were contradictory trends in its development, which generated the appearance of risk situations and affected the financial stability of the industry's enterprises:

- despite a 2.3% increase in the profitability of goods, products, works and services sold, 852 organizations were unprofitable in 2018;
- accounts payable exceeded accounts receivable by 911.8 billion rubles or 26.6%;
- the share of overdue accounts receivable in the total volume of accounts receivable was 4.7% and increased in 2018 compared to 2017 by 0.7%, overdue accounts payable amounted to 118.4 billion rubles in 2018 and decreased by 6.8% compared to 2017, overdue accounts receivable – 160.7 billion rubles and increased by 29.3%, respectively;
- due to insufficient own financial resources, the share of overdue wage arrears in construction amounted to 13% of the total amount of overdue debt in the economy;
- there was a decrease in the volume of investments in the construction of buildings (including housing) and structures, in particular, in 2018, 56.0% of investments in fixed assets were directed (compared to 57.4 in 2017%);
- the degree of depreciation of fixed assets is still higher than in the economy as a whole by 1.1% (48.4%), the coefficient of renewal of fixed assets in 2018 was 5.7% and compared to 2017 increased slightly (by 0.6%), the coefficient of disposal of fixed assets in construction has not changed and amounted to 1.1%;
- the average level of capacity utilization in the fourth quarter of 2019 decreased from 63% to 62% compared to the third quarter of 2019. At the same time, 16% of organizations had a load level of no more than 30%, 16% of organizations - more than 90%. Among small businesses, the average level of capacity utilization was 54% [11].

Today, among the leaders of the Russian construction business, the third place, according to Forbs, is occupied by the St. Petersburg construction company PC “LRS Group” with revenue (2016-2018) of 305.1 billion rubles and commissioning of 2976,000 m² [12].

As for assessing the financial stability of construction companies, the most important indicators that characterize their liquidity, solvency and financial independence are the absolute and current liquidity ratios, the autonomy coefficient and the investment coverage coefficient. These indicators are
calculated by the authors on the basis of the public financial statements investment coverage coefficient of the company “LSR Group” [13]. The calculation results are shown on figure 1.

![Financial coefficients of the company “Group LSR”](image)

**Figure 1.** Financial coefficients of the company “Group LSR”

As shown by the dynamics of figure 1, all indicators for the study period increased, while:
- the absolute liquidity ratio (corresponds to the standard > 0.1–0.2) and shows a steady growth trend of the company from 0.25 in 2016 to 0.69 in 2018, which indicates a balance and synchronization of the inflow and outflow of funds of the enterprise;
- the current liquidity ratio of PC “LSR Group” (corresponding to the standard 1.5–2.5) has a positive trend and increased from 1.92 in 2016 to 2.73 in 2018, and in 2018 exceeded the recommended value, which indicates the possibility of more active use of current assets;
- the coefficient of autonomy, which characterizes the financial independence of the enterprise, increased from 0.28 in 2016 to 0.32 in 2018, while it was less than the standard 0.5, but higher than the industry average of 0.11;
- the investment coverage ratio, which is directly related to the company's solvency, increased from 0.55 in 2016 to 0.66 in 2018 and more than 4 times exceeded the industry average value of this coefficient of 0.16.

Thus, the calculated indicators indicate the effectiveness of the LSR group's activities, its financial stability and the tendency to increase this stability.

Cash flow, sales revenue, profit and profitability are the most important financial indicators of the company [14].

The final financial result of the company is net profit and profitability. Thus, the profit of the construction company “LSR Group” in 2016 amounted to 9163 million rubles, an increase in 2018 by 177% and reached 16230 million rubles, which indicates the effectiveness of management activities and an increase in the sources of formation of its financial resources. According to the federal tax service's assessment, in the construction sector, the average industry returns on sales in 2017 is set at 7.2%, in 2018 at 6.1%, and the average industry return on assets in 2017 at 1.8%, in 2018 at 1.7% [15]. In PC “LSR Group”, the sales margin increased from 16.2% in 2017 to 16.9% in 2018, exceeded the industry average by more than twice, and was characterized by positive growth dynamics, which indicates that the company's pricing policy was correctly chosen and that costs were monitored and controlled accordingly. The return on assets of the “LSR Group” construction company reached 6.3% in 2017 and 6.25% in 2018, which is more than 3.5 times higher than the industry average and is
currently an indicator of the company's profitability and efficiency, as well as its investment attractiveness.

Trends in the studied indicators characterize the performance of construction companies and reflect the functioning of finance in the construction sector, which has its own specific industry features, namely [16],[17],[18]: a longer production cycle, the need to build new temporary premises and change the scheme of transportation of materials; estimated funding, a large share of the article “construction in progress” in the structure of working capital; uneven revenue from the delivery of completed works; close relationship between the need for working capital and the amount of material and labor intensity of work in different periods of construction, etc.

4. Finding
The complexity of studying financial aspects in the construction industry lies in the variety of organizational and economic forms of the construction production process, a large number of participants who perform various functions. In the process of construction production (construction of any object), as a rule, an investor, a customer, a designer, a contractor, specialized subcontractors, as well as credit organizations and insurance companies can be involved. In addition to these direct participants in the construction process, dozens of manufacturers of technological equipment, construction machines and construction materials, etc., participate in the construction process, each of which, first of all, seeks to maximize its own income – profit.

The long construction cycle of objects affects the nature of cost management and financial results of the organization. Due to the fact that during the construction period, large funds and material assets of the organization are excluded from circulation, any measures aimed at reducing the duration of construction are profitable, but this contradicts the organization's desire to expand the “front” of work on the object and increase the number of objects under construction.

5. Discussion
There are different approaches to understanding the essence and structure of financial analysis, its specifics in the conditions of innovative development, which directs users of economic information to carefully choose methods of analysis, since this determines the quality of conclusions made with their help for making management decisions.

We believe that the analysis of sustainability requires a systematic approach that allows us to determine the “nature” of the integrity of this characteristic of economic activity. In this regard, it is advisable to classify factors that affect financial stability by a number of system-forming features, which include the following groups:

– Group 1: basic, external and internal environmental factors. Internal ones include: industry affiliation of the business entity, product structure, its share in the total effective demand, the amount of paid-up authorized capital, the amount and structure of costs and their dynamics, the state of property and financial resources, including reserves, their composition and structure. External factors are: political and legal factors, economic, social, cultural and technological factors.

– Group 2: a time continuum that includes short-term and long-term assets and liabilities. This group contributes to the formation of indicators of short-term and long-term financial stability, which is associated with the tasks of financial and economic analysis. The main focus in the short term is to assess the structure, size and dynamics of stocks, as well as the rhythm of work. In the long term, the investment attractiveness of projects should be considered taking into account their impact on various indicators that form the overall efficiency of the enterprise.

– Group 3: self-sufficiency, ranging from highly profitable to pre-bankruptcy and forming the following types of financial stability: absolute, normal, unstable and crisis.

So, the specificity of financial analysis in construction based on the study of peculiarities of functioning of enterprises, the versatility of providing construction services, the adequacy and optimality of own funds and liquid assets for the implementation of activities, assessment of investment payback.
6. Conclusion

Qualified management of financial resources is a guarantee of survival and the basis of the company's stability. It should be aimed not only at maximizing profits in the short term, but also at maintaining a state of financial stability.

The problem of assessing financial stability is one of the most significant not only financial, but also general economic problems, since low financial stability can lead to the lack of funds for enterprises not only to develop production, but also to resume current activities, as well as to insolvency and even bankruptcy.

We believe that choosing the most appropriate indicators for the company's financial analysis and identifying factors that objectively reflect the conditions for providing construction services is a key issue in managing the financial stability of organizations in this industry. Thus, the difference in approaches to understanding the essence and structure of financial analysis directs users of economic information to carefully select analysis methods, since the quality of their conclusions depends on them.

References
[1] Urban planning code of the Russian Federation from 29.12.2004 N 190-FZ
[2] Official site of Rosstat [electronic resource]. - Access mode: . https://gks.ru/accounts/ Ver. From the screen
[3] Khokhlova G, Kretova N and Burov V 2019 The problems of investment activity of entrepreneurship and methodological aspects of credit risks assessment ICRE IOP Conference series: materials science and engineering 667 doi:10.1088/1757-899X/667/1/012038
[4] Brigham E F and Gapenski L C 1991 Financial management: theory and practice (Dryden Press)
[5] Keynes J M 1936 The General Theory of Emloyment, Interest and Money (London Macmillan)
[6] Schumpeter J M 1993 Business cycle. A Theoretical, Historical and Statistical Analysis of the Capitalist Process (New York Toronto London)
[7] Drucker P F 2002 Management challenges for the 21st century (United Kingdom Harper Collins Publishers Ltd London)
[8] Sheremet A D 2017 Analysis and diagnostics of financial and economic activity of the Enterprise (Moscow: INFRA-M) p 374
[9] Savitskaya G V 2016 Analysis of economic activity of the enterprise p 378
[10] Kretova N V, Tsaregorodtseva E Y and Khohlova G I 2017 Applying advanced methods of evaluation of level of innovative development for industrial sector Advances in Economics, Business and Management Research, TTIESS 38 doi: org/10.2991/ttiess-17.2017.116
[11] Official site of Rosstat [electronic resource]. - Access mode https://gks.ru/folder/210/document/13227/ Ver. From the screen
[12] Forbes for the first time evaluated the reliability of Russian developers [electronic resource]. – Access mode: https://www.forbes.ru/biznes-photogallery/386153-20-samyh-nadezhnyh-zastroystshchikov-strany-reyting-forbes?photo=1/ Ver. From the screen
[13] Consolidated financial statements of PJSC "LSR Group". Access mode: https://lsrgroup.ru/investors-and-shareholders/portfel-investora/financial-statements. Ver. From the screen
[14] Vovseenko E A 2018 Financial Instruments and Hedging: New Rules of IFRS European Proceedings of Social and Behavioural Sciences
[15] Appendix # 4 to the Order of the Federal tax service of Russia dated 30.05.07 # MM-3-06/333@ Profitability of goods, products, works, services sold and return on assets of organizations by type of economic activity, as a percentage http: //www.consultant.ru/ document/cons_doc_LAW_ 55729/01bf784784f784b06ae280a3d45a7f9a8f594989/ Ver. From the screen
[16] Peshkov V 2018 The building complex of the region in the aspect of implementing the main directions of the Strategy for the Development of the Housing Sector MATEC Web Conf. 212

[17] Peshkova M V 2011 Assessment of investment preferences and investor competencies for the implementation of investment construction projects Kazan Science 9 pp 89–93

[18] Peshkov A V 2018 The economic efficiency of the use of intangible resources in investment and construction activities University News. Investments. Construction. The property doi: 10.21285 / 2227-2917-2018-4-44-51