



CASH FLOW MANAGEMENT OF A CONSTRUCTION COMPANY DURING ECONOMIC INSTABILITY

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| Article history: | Abstract: |
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| Received: 30 th June 2025 | The article discusses the specifics of cash flow management in construction companies in the context of economic instability. It emphasizes the importance of financial planning and control during periods of rising inflation, fluctuations in prices for construction materials, and changes in lending conditions. Key risk factors, such as rising resource costs, long project implementation periods, cash gaps, and rising accounts receivable, are identified. Methods and tools for effective cash flow management, including budgeting, project financing, factoring, and digitalization of financial processes, are disclosed. Particular attention is paid to the formation of reserve funds, diversification of funding sources, implementation of stress testing, and scenario analysis. Practical recommendations are formulated aimed at increasing the sustainability of construction companies and their competitiveness in the market. |
| Accepted: 28 th July 2025 | Scientific novelty The scientific novelty of the study lies in the comprehensive consideration of cash flow management of construction companies in the context of economic instability with an emphasis on the combination of classical financial management tools and modern digital technologies. For the first time, the features of the influence of macroeconomic factors on the structure and dynamics of cash flows of construction organizations in long-term projects are systematized. The role of scenario analysis and stress testing in the formation of a strategy for sustainable financial development is clarified. An approach to diversifying funding sources is proposed, taking into account the specifics of the construction industry and the high level of non-payment risks from customers and counterparties. The novelty of the work also lies in the justification of the need to integrate digital platforms for monitoring and forecasting cash flows, which allows for increased efficiency of management decisions and a reduction in the likelihood of cash gaps. Purpose of the study The purpose of the study is to identify the features of cash flow management of construction companies in conditions of economic instability, as well as to develop theoretically sound and practically applicable recommendations aimed at increasing financial stability and ensuring the smooth functioning of construction organizations in the long term. |

Keywords: Cash flows, construction company, economic instability, financial planning, budgeting, liquidity, cash gaps, accounts receivable, project financing, factoring, digitalization, stress testing, scenario analysis, financial stability, competitiveness

INTRODUCTION

Cash flow management of construction companies is one of the central tasks of modern financial management. This problem has become especially relevant in the conditions of economic instability, when the market situation is characterized by high volatility and uncertainty. Effective distribution and use of cash resources determines not only the current solvency of the company, but also its ability to implement long-term projects, ensure sustainability and competitiveness in the market.

Historically, approaches to cash flow management in the construction industry have evolved along with the evolution of financial science and practice. During the Soviet period, the activities of construction organizations were based on a centralized system of financing and planning, which minimized the influence of market factors, but significantly limited the flexibility and independence of companies. Financing was carried out mainly at the expense of state funds, and issues of cash gaps and liquidity were not so important, since financial flows were regulated centrally.



With the transition to a market economy in the 1990s, construction companies found themselves in conditions of a deficit of financial resources, high inflation and instability of the banking system. This necessitated an independent search for sources of financing and the development of internal mechanisms for managing cash flows. Issues of effective planning, management of accounts receivable and accounts payable, and cost optimization came to the fore. During this period, many construction companies faced non-payments from customers, violation of contractual obligations and significant cash gaps.

At the beginning of the 21st century, project financing began to actively develop in Russia and other countries with developing economies, which allowed for more flexible risk distribution and the attraction of long-term investments. At the same time, methods of financial analysis, budgeting and modeling aimed at ensuring the sustainability of the company were introduced. Digitalization made a significant contribution to the

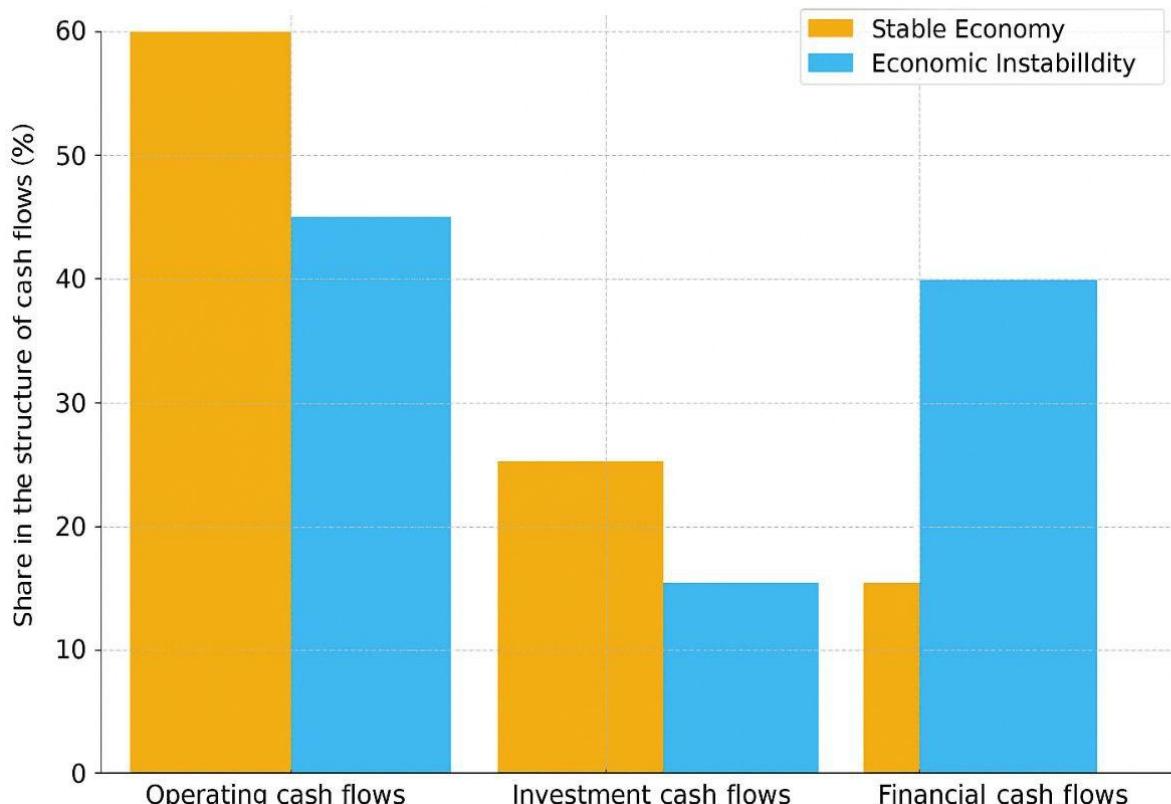
development of cash flow management practices: the emergence of specialized software products made it possible to automate accounting and forecasting processes, as well as increase the transparency and manageability of financial flows.

The current stage is characterized by increased uncertainty in the economy caused by global crises, fluctuations in prices for construction materials, changes in lending conditions and instability of exchange rates. This requires new approaches to cash flow management from construction companies, based on scenario analysis, stress testing and the use of digital technologies. Thus, the study of this problem seems relevant and significant in both theoretical and practical aspects.

Structure and specifics of cash flows of a construction company

The cash flows of construction companies have a number of features due to the specifics of the industry.

Changes in the Structure of Cash Flows of a Construction Company



The presented graph reflects the comparative structure of cash flows of a construction company in a stable economy and during a period of economic instability. In a stable situation, the main share is occupied by operating flows, which indicates the normal functioning of the business, ensuring stable revenue and covering

current expenses. Investment flows have a moderate value, which is explained by the active development and modernization of fixed assets. Financial flows play a supporting role and are formed mainly through borrowed funds necessary for the implementation of long-term projects.



Economic risk is an integral part of the activities of a construction organization performing various functions.

[1]

Operating cash flows include receipts from customers for work performed, payments to contractors and subcontractors, purchase of construction materials, labor costs, rent payments, and other expenses related to current operations. In construction, operating cash flows are subject to significant fluctuations, as they depend on project financing schedules, contract terms, and customer payment discipline.

Investment cash flows are associated with the acquisition of construction machinery and equipment, investments in land, development of design documentation and implementation of long-term projects. These flows, as a rule, require significant costs

Table 1. Features of cash flows of a construction company in various economic conditions

| Stable economy | Economic instability |
|---|---|
| High predictability of operating flows | Decrease in revenue and increase in accounts receivable |
| Active investments in development and modernization | Freezing or reducing investment projects |
| Limited borrowing | Growing dependence on loans and external financing |
| Liquidity stability | Increased risk of cash flow gaps |

Inflation leads to rising prices for construction materials, fuel, equipment and services, which increases the cost of projects. At the same time, prices in long-term contracts are often fixed, which reduces profitability. [4] Currency risks also have a significant impact, as many materials and equipment are imported. Currency fluctuations increase costs and complicate financial planning.

Long project lead times create additional risks. Interest rates, tax policies, customer solvency, and credit conditions may change during the construction period. This makes construction projects particularly vulnerable to changes in the external environment. [5]

No less significant are the risks associated with counterparties. Violation of contractual obligations, delays in payments and bankruptcy of customers lead to an increase in accounts receivable and cash gaps.

Separately, it is necessary to note the influence of the geopolitical situation, which may limit access to international financial markets, increase the cost of imported materials and reduce investment activity. [6]

METHODS AND TOOLS FOR EFFECTIVE CASH FLOW MANAGEMENT

at the initial stages and generate income only after a long period of time. [2]

Financial cash flows include raising loans, issuing bonds, investor participation in projects, paying interest and dividends. For construction companies, financial flows play a key role, since their own resources are often insufficient to implement large-scale projects.

The main feature of the structure of cash flows in construction is their imbalance. For example, significant payments often precede receipts, which leads to cash gaps. This requires special attention to planning and synchronization of flows. [3]

Risk factors and problems of cash flow management in unstable conditions

Economic instability increases the impact of risks on the cash flows of construction companies.

To increase the sustainability of construction companies in unstable conditions, various methods and tools for managing cash flows are used.

Budgeting and financial planning allow you to forecast cash flow, identify periods of possible liquidity shortages and develop measures to prevent them. Scenario modeling makes it possible to take into account various options for the development of the situation and form adaptive strategies. [7]

Accounts receivable management plays a key role. Reducing payment terms, implementing advance payments, applying factoring and risk insurance help speed up the turnover of funds.

Project financing is used to implement capital-intensive projects when the return on investment is provided by future income. This tool allows you to distribute risks between all participants and reduce the burden on the company's cash flows.

In addition, construction companies can use such instruments as construction equipment leasing, public-private partnerships, crowdfunding, and corporate bond issuance. These forms of financing help diversify sources and increase financial sustainability. [8]



DIGITALIZATION AND INNOVATION IN CASH FLOW MANAGEMENT

Digitalization is one of the key areas of development of financial management in the construction industry.

Automated financial management systems allow you to track receipts and payments in real time, generate reports and forecasts, identify cash gaps and promptly make management decisions.

Modern digital platforms integrate accounting, management and project accounting, which provides comprehensive control over financial flows. The use of big data and artificial intelligence technologies opens up prospects for more accurate forecasting of cash flows and optimization of management. [9]

Digitalization increases the transparency of financial processes, reduces the likelihood of errors, speeds up information processing and helps increase trust among investors and creditors.

FINANCIAL SUSTAINABILITY OF A CONSTRUCTION COMPANY: STRATEGIES AND PRACTICAL RECOMMENDATIONS

The financial stability of a construction company directly depends on the quality of cash flow management. In unstable conditions, it is necessary to apply a set of measures aimed at reducing risks and ensuring uninterrupted functioning.

Formation of reserve funds allows to smooth out temporary cash gaps and maintain liquidity. Diversification of sources of financing reduces dependence on bank loans and increases the company's flexibility.

The use of stress testing and regular analysis of financial indicators allows us to identify potential threats and develop adaptive measures.

An equally important area is working with customers and contractors. The introduction of strict contract terms, advance payments and risk insurance systems helps reduce the likelihood of non-payments.

Active participation in government support programs and infrastructure projects is also a factor in increasing the sustainability of construction companies.

CONCLUSION

Cash flow management of construction companies in conditions of economic instability is one of the most complex and at the same time most significant tasks of modern financial management. The construction industry has always been characterized by high capital intensity, significant dependence on external sources of financing and long project implementation periods. All this makes it especially sensitive to changes in the macroeconomic environment, to fluctuations in exchange rates, growth in inflation, changes in tax and credit policies of the state. Even short-term disruptions

in the receipt of funds can lead to cash gaps, suspension of construction, growth of debt obligations and damage to the company's reputation. In such conditions, it is effective cash flow management that becomes a key tool for ensuring the sustainability and competitiveness of construction organizations.

The analysis showed that successful cash flow management requires a combination of classic financial planning methods and modern digital tools. Budgeting, forecasting, scenario modeling and stress testing allow you to take into account various scenarios and prepare adaptive strategies in advance. Accounts receivable management, the use of advance payments, factoring and risk insurance help speed up capital turnover and reduce the likelihood of cash gaps. Diversification of funding sources and the development of project financing ensure an influx of long-term investments and reduce companies' dependence on bank loans.

Digitalization plays a special role in transforming approaches to cash flow management. Automated accounting and analysis systems allow tracking cash flow in real time, promptly identifying deviations from planned indicators and promptly making management decisions. [10] The integration of big data and artificial intelligence technologies opens up new prospects for more accurate forecasting of financial flows, which is especially important in unstable conditions. Digital platforms increase the transparency of companies' activities, which contributes to increased trust from investors, customers and government agencies.

Government policy in the area of support for the construction industry is also of great importance. During periods of economic crisis, preferential lending, government guarantees for large infrastructure projects, tax breaks and interest rate subsidies become effective stabilization tools. Such measures allow construction companies to mitigate the effects of crises, maintain solvency and continue implementing socially significant projects. In this context, partnership between business and the government becomes the most important condition for the sustainable development of the industry.

Foreign experience shows that effective management of cash flows in construction is possible only with a combination of financial discipline and strategic flexibility. In countries with developed economies, considerable attention is paid to the stock market, which provides companies with additional opportunities to attract capital through the issue of shares and bonds. For Russian practice, the introduction of such instruments can also become a promising direction, contributing to the diversification of sources of financing and the reduction of financial risks.



In the future, over a five- to ten-year horizon, it can be predicted that the key factors in increasing the sustainability of construction companies will be further digitalization of financial management, expansion of project financing practices, introduction of instruments for insuring currency and interest rate risks, as well as active development of public-private partnerships. Construction companies that have managed to adapt their financial strategies to new conditions and ensure a balance between liquidity, profitability and investment activity will be able not only to maintain their positions in the market, but also to strengthen them in the long term.

Thus, cash flow management in conditions of economic instability should be considered not only as a tactical task to maintain liquidity and prevent cash flow gaps, but also as a strategic basis for the sustainable development of a construction company. Competent organization of cash flows, based on modern methods and tools, allows construction organizations to maintain stability, adapt to unfavorable changes in the external environment and ensure a contribution to the development of the country's economy. This is why the issue of cash flow management should be considered one of the central areas of research and practical development in the field of construction business and financial management.

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