FINANCIAL RISK MANAGEMENT AND STABILITY ASSESSMENT IN THE BUILDING MATERIALS INDUSTRY UNDER CONDITIONS OF MARKET VOLATILITY

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Abstract. *This article analyzes the nature and types of financial risks that arise in building materials industry enterprises under conditions of market volatility, as well as the methods used to manage them. Inflation, exchange-rate fluctuations, interest rates, and volatility in energy prices are examined as the main macroeconomic factors affecting the financial stability of enterprises in the sector. Practical methods for assessing financial stability are systematized, a practical analysis is conducted using the example of Uzbekistan's building materials industry, and scientifically grounded practical recommendations for financial risk management are developed.*

Keywords: *financial risk, market volatility, financial stability, inflation, currency risk, risk management, building materials industry.*

Introduction

The instability observed in recent years in the global and regional economy — fluctuations in energy resource prices, exchange-rate volatility, and persistent inflationary pressure — is having a significant impact on the financial activity of industrial enterprises. The building materials industry is of particular importance in this respect, as the sector is characterized by high capital intensity, dependence on energy resources, a long investment cycle, and equipment and raw-material supply that is largely dependent on imports. For this reason, enterprises in the sector are more exposed to the effects of market volatility than those in many other fields.

Under conditions of market volatility, an enterprise's ability to maintain financial stability is no longer a matter of chance but the result of a well-designed risk-management system. Timely identification of financial risks, assessment of their degree of impact, and the adoption of preventive measures determine not only an enterprise's current operations but also its long-term development prospects.

The purpose of this article is to reveal the nature of the financial risks that arise in building materials industry enterprises under conditions of market volatility, to classify them, to systematize methods for assessing financial stability, and to develop practical recommendations for risk management for enterprises in the sector.

1. The Concept of Financial Risk and Its Manifestations in the Building Materials Industry

Financial risk is an economic category expressing the probability that an enterprise's financial resources, income, or capital will be lost, or that expected results will not be achieved, as a result of market factors, management decisions, or changes in the external environment. Financial risk is an inherent part of an enterprise's activity and cannot be eliminated entirely; however, by identifying, measuring, and managing it, its negative impact on the enterprise can be significantly reduced.

In the building materials industry, financial risks manifest in a number of distinctive forms. First, because of the sector's high energy intensity, rising prices for energy resources (natural gas, electricity, coal) have a direct impact on production costs. Second, because equipment and certain types of raw materials are imported, enterprises are exposed to exchange-rate risk. Third, since large investment projects are financed mainly through credit resources, interest-rate risk arises. Fourth, because demand for the product is tied to construction activity, the sector is also highly susceptible to market (demand) risk.

2. Main Sources of Market Volatility

One of the main sources of the market volatility observed recently in Uzbekistan's economy is inflationary processes. According to Central Bank data, by mid-2026 the increase in energy resource tariffs had a direct effect on the inflation rate, contributing an impact of approximately one percentage point. Experts note that rising energy prices may also pass through to the prices of other goods and services via secondary effects, and may generate additional price pressure through increased production and transport costs.

According to the results of a public survey, the perceived rise in building materials prices was recorded among the highest indicators in recent periods — respondents reported that the price of building materials had risen by approximately 17 percent (compared with 20 percent in the previous month). This indicates that the building materials market is perceived by the public as one of the commodity groups with the highest price volatility.

With regard to the exchange-rate factor, Uzbekistan has operated a free-floating exchange-rate regime since 2017, and the degree of free rate formation has been further expanded in recent times. While this increases the national economy's adaptability to external shocks, it simultaneously heightens exchange-rate risk for importing enterprises, including those in the building materials industry. Due to high domestic demand and uncertainties in the external environment, the Central Bank has kept its key policy rate relatively high, at 14 percent, which signals the high cost of credit resources and, consequently, pressure on investment activity.

3. Classification of Financial Risks in the Building Materials Industry

The financial risks that arise in sector enterprises can be divided into the following main types according to their source of origin and scope of impact. Such a classification enables enterprise management to develop separate management measures for each type of risk.

Table 1

Classification of Financial Risks in the Building Materials Industry

Type of Risk	Form of Manifestation	Main Channel of Impact
Market (price) risk	Fluctuation in product and raw material prices	Revenue and production cost
Currency risk	Change in the value of foreign-currency obligations	Credit costs
Interest-rate risk	Rising cost of credit resources	Investment expenditures
Liquidity risk	Inability to meet current obligations on time	Solvency
Credit risk	Decline in debtors' solvency	Cash flow
Operational risk	Power outages, equipment failure, logistics disruption	Continuity of production

Source: systematized by the author based on an analysis of scientific literature and statistical data.

The classification presented shows that market and currency risks are of the greatest importance for building materials industry enterprises, since they have a direct impact on the sector's cost structure and investment expenditures. At the same time, liquidity risk and credit risk are often interrelated, with an increase in one frequently leading to an increase in the other.

4. Methods for Assessing Financial Stability

Two main approaches are generally used to assess an enterprise's financial stability: quantitative (ratio-based) methods and qualitative (expert-assessment) methods. The quantitative method involves calculating an enterprise's liquidity, financial independence, solvency, and profitability ratios and comparing them against benchmark values. Although this method is objective and verifiable, since it relies solely on past-period data, it cannot fully reflect risks that may arise in future periods.

For this reason, qualitative methods, particularly expert assessment, are also widely used in the sector to evaluate efficiency and stability. In this approach, several independent experts individually assess the external market factors affecting the

enterprise through a survey. To determine the degree of agreement among expert assessments, the concordance coefficient proposed by M. Kendall is applied, with values ranging from 0 to 1: a value of 0 indicates complete disagreement, while a value of 1 indicates complete agreement among experts' opinions. In practice, a concordance coefficient above 0.40–0.50 is considered a satisfactory assessment result, while a value above 0.70–0.80 is considered highly reliable.

Applying quantitative and qualitative methods together — that is, supplementing ratio analysis based on financial statements with expert assessment — makes it possible to sufficiently capture not only an enterprise's current financial condition but also its potential risks in future periods. Such an integrated assessment system provides enterprise management with the information base necessary for making timely management decisions.

5. Practical Analysis Using the Example of Uzbekistan's Building Materials Industry

The practice of Uzbekistan's building materials industry clearly demonstrates the impact of market volatility on the sector's financial condition. In particular, the additional costs arising from higher energy tariffs are placing considerable pressure on the production costs of highly energy-intensive sectors, including cement and ceramics manufacturing enterprises. At the same time, given that production capacity utilization stands at only 50–55 percent, the ability to fully pass increased costs on to product prices is limited, which may further narrow enterprises' profit margins.

A practical manifestation of credit-interest risk is the Central Bank's decision to keep its key policy rate at 14 percent because of high domestic demand and external uncertainties. Under these conditions, financing new investment projects through credit resources is becoming expensive for enterprises, which may slow down modernization and technological renewal processes.

The decline in financial stability in the sector is also reflected in tax-arrears statistics: as of the beginning of 2026, the tax arrears exceeding 100 million soums owed by construction-sector enterprises totaled 1.3 trillion soums. This situation primarily indicates that the financial risk-management systems of some enterprises are not sufficiently developed under conditions of market volatility — they have been unable to adapt in time to rising costs and declining demand.

At the same time, measures implemented by the government are helping to partially mitigate financial risks in the sector. In particular, Uzsanoatqurilishbank has financed hundreds of projects as part of its financial support for building materials production, and preferential credit lines from international financial institutions and foreign banks have been attracted, which partially meets enterprises' need for credit resources on favorable terms and helps mitigate interest-rate risk.

6. Strategies for Managing Financial Risks Under Conditions of Market Volatility

Based on the analysis conducted, the following strategic directions are proposed for the effective management of financial risks in building materials industry enterprises.

First, to reduce energy-price risk, enterprises should pay special attention to improving energy efficiency and using alternative energy sources (solar panels, heat-recovery systems). This not only reduces costs but also increases the enterprise's resilience to energy-price volatility.

Second, to reduce currency risk, it is advisable for enterprises to expand the use of the domestic raw-material base, to develop import-substituting products and equipment, and to make use of natural-hedging opportunities by covering foreign-currency obligations with export revenues.

Third, to manage interest-rate risk, it is recommended that enterprises diversify their credit portfolios, actively use preferential government programs and low-cost credit lines from international financial institutions, and implement investment projects in stages, in line with their financial capacity.

Fourth, to reduce liquidity and credit risk, enterprises need to introduce systems for the regular monitoring of accounts receivable and make use of advance-payment or guarantee mechanisms in contractual relations with customers.

Fifth, to reduce operational risk, production continuity should be ensured through regular equipment maintenance, the creation of reserve capacity, and diversification of the supply chain.

Sixth, it is recommended that enterprises establish a dedicated structure or designated function for financial risk management, in which quantitative (ratio-based) and qualitative (expert) assessment methods are applied together, with management decisions made regularly on the basis of the results.

Conclusion

The research conducted shows that, under conditions of market volatility, the financial stability of building materials industry enterprises largely depends on their ability to identify and manage financial risks in a timely manner. Volatility in inflation, energy prices, exchange rates, and interest rates constitutes an objective external factor for sector enterprises that cannot be eliminated entirely; however, its negative impact can be significantly reduced through an adaptive strategy and an effective risk-management system.

The practical analysis conducted using the example of Uzbekistan's building materials industry showed that the financial risk-management system in the sector is not yet sufficiently developed — this is reflected, in particular, in the accumulation of

tax arrears and low profitability indicators at certain enterprises. For this reason, applying the risk-management strategies proposed in this article, together with integrated (quantitative and qualitative) methods of assessing financial stability, will serve to increase sector enterprises' resilience to market volatility and to ensure their long-term sustainable development.

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