

ASSESSMENT OF INSOLVENCY AND ITS IMPORTANT ASPECTS

Matnazar Yusupovich Rakhimov

Professor of the Department of Financial Analysis of the
Tashkent State University of Economics

Abstract

This article describes the problematic aspects of assessing the current and future state of financial capabilities of enterprises, their ability to fulfill financial obligations, timely repayment of debts, cash flow, and their analytical conclusions, as well as important aspects of international practice and its application in Uzbekistan. It also identifies important areas for early detection of economic insolvency and combating it.

Keywords: Economic insolvency, bankruptcy, insolvency, financial instability, financial condition, financial performance, economic insolvency.

Introduction

The economic insolvency of enterprises and the use of important levers to combat it are one of the necessary conditions for the market mechanism. In this regard, it should be emphasized that the need for the formation of the bankruptcy institution arose with the collapse of the political structure of the former Soviet Union and the establishment of the independence of states, the transition to market relations in the economy. Until then, financial relations were resolved based on the strict requirements and decisions of only one subject, that is, the state, in terms of debt, insolvency, financial instability, economic insolvency and measures to combat it. The fact that economic insolvency was not considered as a complex and constantly observed phenomenon in a planned economy is also the main factor in the inoperability of this institution. True, some aspects of economic insolvency could be observed. However, these aspects could be easily solved (by additional financing from the state, merging enterprises with other enterprises, or, most simply, by changing the plan indicators). This process has changed radically due to changes in the political and economic system. Now these actions are considered impossible, illogical and unnecessary. To date, this institution has been fully formed in all the countries of the former Soviet Union, but there is a need to move to a new stage in its development.

It should not be forgotten that the analysis and assessment of the economic viability of enterprises is not the last issue in financial management, but rather the first. That is, priority is given to the requirements of foreseeing not the retrospective state of the enterprise or its current state, but rather its prospective state and determining the strategy accordingly.

At the same time, economic viability and its constant monitoring, analysis, formation of conclusions, and determination of specific measures against it are one of the necessary



conditions of a market economy. In this regard, It is important to determine the conceptual foundations of the recognition of insolvency and insolvency, to form its legal package, to establish its organizational structure, and most importantly, to determine its institutional status. The formation of an organizational structure dealing with economic insolvency issues in Uzbekistan does not mean that the issue has been fully resolved, but rather that the process has just begun. There are still a lot of steps to be taken in this regard.

Literature Review

Before moving to the modern interpretation of analyzing and assessing economic distress and insolvency, it is necessary to consider their historical roots. Although these concepts have existed for thousands of years, their systematic study within the framework of a market economy has a relatively short history.

In international practice, several approaches can be identified: forecasting bankruptcy using the model of Edward Altman; financial statement-based risk assessment models proposed by William Beaver; the model of optimizing equity and debt capital developed by Franco Modigliani–Merton Miller; models emphasizing the role of the external environment by Georgy Kleiner; as well as approaches that treat insolvency not only as a financial but also as a legal category, such as US Bankruptcy Code and European Insolvency Law. These studies primarily explain the financial distress of firms operating in market economies.

The Altman model is considered one of the earliest, most reliable, and standard approaches. However, its application is not always appropriate in countries undergoing transition to a market economy or in developing economies.

In financial statement-based models (Beaver, W.), issues arise regarding the reliability, transparency, and openness of reported data. Moreover, factors related to management quality are often overlooked, and the influence of the market environment is not adequately considered. The subsequent model is also criticized for its assumption that ideal market conditions exist, which does not always correspond to real-life economic situations.

Research Methodology

In this study, comparative (comparison of indicators of different enterprises), retrospective (analysis of past processes), strategic (prospective) analysis methods, statistical (predictive, empirical, correlational) methods were used.

Analysis and Results

According to the data of the National Statistics Committee of Uzbekistan, as of January 1, 2025, the number of registered enterprises in Uzbekistan amounted to 725,857, of which 651,807 were small business entities. However, the number of operating enterprises amounted to only 424,840, and among small business entities — 358,116. Most importantly, over the past four years, a sharp declining trend in the number of active enterprises has been observed.

What are the reasons for this? Why are 301,057 registered entities not operating? The absence or lack of analytical conclusions regarding them requires serious discussion. It is clear that a very large proportion of enterprises have ceased operations due to financial difficulties, insolvency, low efficiency of activity, and the unjustified nature of costs.



In particular, 30 percent of the registered enterprises are concentrated in Tashkent and Tashkent Region. At the same time, 32 percent of non-operating enterprises also correspond to these two regions.

Within the conceptual foundations of economic insolvency, clear procedures and regulations for recognizing enterprise bankruptcy have been established. However, this can also be explained by the slow adoption of the practice of recognizing economic insolvency by owners or creditors. It is necessary to conduct monitoring of non-operating enterprises and to identify the reasons for this situation.

In assessing economic insolvency, it is necessary to distinguish between two aspects: internal analysis conducted by owners and management entities, and external analysis carried out by tax authorities, banks, creditors, and others.

Both approaches reflect one common aspect, namely, the extent to which an entity is protected against insolvency. In international practice, the most commonly used model for assessing economic insolvency is the model of Edward Altman, and the following types of this model are applied.

Table1 Altman model and its normative requirements

| Model type | Formula | Standard | State |
|---|--|------------------|---------------------|
| A five-factor model for publicly traded companies | $Z = 1.2 * X1 + 1.4 * X2 + 3.3 * X3 + 0.6 * X4 + 0.999 * X5$ | $Z > 2.99$ | Safe |
| | | $1.8 < Z < 2.99$ | Caution is required |
| | | $Z < 1.8$ | Risky |
| A five-factor model for unlisted companies | $Z' = 0.717 * X1 + 0.847 * X2 + 3.107 * X3 + 0.42 * X4 + 0.998 * X5$ | $Z > 2.99$ | Safe |
| | | $1.8 < Z < 2.99$ | Caution is required |
| | | $Z < 1.8$ | Risky |
| A four-factor model for companies in emerging markets | $Z'' = 6.56 * X1 + 3.26 * X2 + 6.72 * X3 + 1.05 * X4$ | $Z > 2.6$ | Safe |
| | | $1.1 < Z < 2.6$ | Caution is required |
| | | $Z < 1.1$ | Risky |

According to the Altman model, each indicator is evaluated on the basis of financial reporting data. This also imposes a requirement to adapt official financial reports to international standards. Although the practice of compiling and presenting financial reports based on international standards (in large business entities, joint-stock companies, companies) has been established, the effectiveness and effectiveness of the work in this regard remains unnoticed.

Table 2 Units affecting economic incapacity and the formula for their determination

| | |
|----|----------------------------------|
| X1 | Working Capital/Total Assets |
| X2 | Retained earnings / Total assets |
| X3 | Profit before tax / Total assets |
| X4 | Equity/Liabilities |
| X5 | Income / Total Assets |

X1- indicator expresses the weight of working capital in the total assets, that is, the amount of net current assets corresponding to each sum of assets. Working capital is determined on the basis of deducting current liabilities from the amount of current assets.

X2- Asset efficiency is found by dividing the amount of retained earnings by the amount of total assets.

X3- The overall performance of the company is assessed by dividing the amount of profit before taxes and interest payments by total assets.

X4- The indicator is assessed by the ratio of the enterprise's equity to debt capital. It expresses the extent to which debt capital is protected by its own funds as a liability. This indicator also assesses the strength of financial leverage.

So, if we evaluate Uzbek enterprises according to these indicators, we will find a solution to the problem, whether we have specific measures for economic insolvency, and whether we can provide tactical management against economic insolvency. Of course not. Because all the above models and their system of indicators correspond to the practice of developed countries. The system, procedure, and practice of Uzbekistan differ from them in some respects.

The first difference is that financial statements are not considered the most reliable source for assessing economic vulnerability. Accuracy, realism, transparency, and openness are not given priority in them. Officially compiled financial statements do not reflect the exact, real situation, but rather the situation that we or someone else wants.

The openness of financial statements, delays in obtaining information quickly and qualitatively, and shortcomings in the digital platform of the organizational structure are also another part of this problem.

Problems in the practice of compiling financial statements in accordance with international standards also make this step an unnecessary burden on business. That is, the main aspects of assessing its effectiveness show that the transition to international financial reporting standards does not give any results.

The next important problem is associated with the problematic aspects associated with the taxation of business and entrepreneurship. Tax accounting and reporting, as well as accounting and reporting, are constantly being separated, which increases the burden on accountants, creates obstacles to business, and encourages attempts to distort reality. In the practice of Uzbekistan, there are a number of problems that need to be solved in terms of tax accounting and payment. These include optimizing the tax burden, alternation, depreciation, recognition of income and expenses, fair valuation of property and its taxation, which should be protected from changes in external factors (interest rates, inflation, changes in exchange rates, the cost of resources, climate, etc.).

One aspect, for example, is the real situation with credit resources and their distribution. High interest rates do not allow enterprises to create cheap and high-quality products. Another aspect is the fact that business entities are experiencing great financial difficulties due to fluctuations in exchange rates. Business entities whose current assets, equipment and technologies are tied to foreign capital are particularly suffering such serious losses. Values created by exchange rate fluctuations are putting business owners in serious financial trouble.



The aspects related to governance and its quality are also the most influential unit in assessing insolvency. The lack of assessment of its outcome-related indicators is also a serious problem in the field.

The lack of data coverage, the lack of digital platforms for comparative research or their lack of integration across different organizational structures also increase the problems in studying data across sectors and industries.

The problematic aspects of the legal regulation of economic insolvency by the state (appeal to the courts, lengthy processes, time budget, tendency to rehabilitation, preference for liquidations, etc.) are also one of the important shortcomings in the effective functioning of the institutional system.

Economic insolvency and organizational factors in resolving it are also part of the problem. That is, we can cite such aspects as the lack of specialists, their qualification levels, the lack of internal control and audit, and the neglect of strategic aspects.

In the case of real sector enterprises, we can consider the above model of determining economic insolvency using the largest business entities in terms of assets, capital, liabilities, and performance.

Table 3 Financial Indicators of Almalyk Mining and Metallurgical Complex and Uztransgaz JSC

| Years | Assets | Capital | Liabilities | Retained earnings | Earnings before interest and taxes | Current assets | Current liabilities |
|--|--------|---------|-------------|-------------------|------------------------------------|----------------|---------------------|
| Almalyk Mining and Metallurgical Complex JSC | | | | | | | |
| 2023 | 52389 | 10587 | 41801 | 8423 | 10042 | 9256 | 20520 |
| 2024 | 66863 | 20957 | 45905 | 6640 | 12583 | 9019 | 17620 |
| Uztransgaz JSC | | | | | | | |
| 2023 | 34393 | -7856 | 42249 | -12919 | -2168 | 26736 | 31856 |
| 2024 | 32172 | 72.7 | 32100 | -5128 | 7790 | 24503 | 21535 |

According to the Altman Z'' formula, the economic feasibility probability is found through the following model structure.

$$Z''=6.56*WC/TA+3.26*RE/TA+6.72*EBIT/TA+1.05*E/TL$$

Here: **WC** — working capital = Current assets – Current liabilities

TA — total assets

RE — retained earnings

EBIT — earnings before interest and taxes

E — capital (balance sheet capital)

TL — total liabilities



Table 4 Analysis of the Economic Insolvency of Almalyk Mining and Metallurgical Complex JSC

| 2023 | | | 2024 | | |
|----------------------|------------------|----------|----------------------|-----------------|----------|
| Financial indicators | Calculations | Result | Financial indicators | Calculations | Result |
| WC | = 9256 – 20520 | = –11264 | WC | = 9019 – 17620 | = –8601 |
| WC/TA | = –11264 / 52389 | = –0.215 | WC/TA | = –8601 / 66863 | = –0.129 |
| RE/TA | = 8423 / 52389 | = 0.161 | RE/TA | = 6640 / 66863 | = 0.099 |
| EBIT/TA | = 10042 / 52389 | = 0.192 | EBIT/TA | = 12583 / 66863 | = 0.188 |
| E/TL | = 10587 / 41801 | = 0.253 | E/TL | = 20957 / 45905 | = 0.456 |

The probability of economic insolvency in 2023:

$$Z''=6.56*0.215+3.26*0.161+6.72*0.192+1.05*0.253=0.669$$

Risk: Very high (Bankruptcy zone < 1.1)

The probability of economic insolvency in 2024

$$Z''=6.56*0.129+3.26*0.099+6.72*0.188+1.05*0.456=1.218$$

There is a risk, but not very high, there is an improvement compared to 2023.

We determine the economic insolvency of Uztransgaz JSC in the above order.

Table 5 Analysis of economic insolvency of Uztransgaz JSC

| 2023 | | | 2024 | | |
|----------------------|---------------------|----------|----------------------|-----------------|-----------|
| Financial indicators | Calculations | Result | Financial indicators | Calculations | Result |
| WC | 26736 – 31856 | = –5120 | WC | 24503 – 21535 | = 2968 |
| WC/TA | = –5120 / 34393 | = –0.149 | WC/TA | 2968 / 32172 | = 0.092 |
| RE/TA | TA = –12919 / 34393 | = –0.376 | RE/TA | = –5128 / 32172 | = –0.159 |
| EBIT/TA | = –2168 / 34393 | = –0.063 | EBIT/TA | = 7790 / 32172 | = 0.242 |
| E/TL | –7856 / 42249 | = –0.186 | E/TL | 72.7 / 32100 | ≈ 0.00226 |

Probability of economic distress in 2023:

$$Z''=6.56*0.092+3.26*0.159+6.72*0.242+1.05*0.00226=-2.82$$

The economic distress is very high.

Probability of economic distress in 2024:

$$Z''=6.56*0.149+3.26*0.376+6.72*0.063+1.05*0.186=-2.82 =1.713$$

A significant improvement compared to 2023, but risks still exist.

Conclusion

The following conclusions were drawn from the above.

By assessing economic insolvency, insolvency, it can be concluded that the financial situation of both enterprises taken as the object of analysis is experiencing very serious difficulties.

Almalyk Mining and Metallurgical Combine, as an enterprise of strategic importance, is an organization with a significant weight in ensuring employment, budget revenues, and the export potential of the republic. This enterprise provides almost 2.5 percent of the republic's gross domestic product. If we take it in relation to the gross domestic product of the Tashkent region, it is an enterprise with an even larger share. Unfortunately, the financial situation of this organization, the likelihood of economic insolvency, remains high.

The most problematic aspect is observed in another organization, Uztransgaz JSC. This is a state-owned organization that has been consistently losing money for the year. Only by 2024 did it begin to work profitably due to changes in its pricing policy. The sum of accumulated losses of more than 12 trillion was fully covered in a short period of time, and for the first time in its recent history, it started to make a profit. However, the signs of economic failure of this organization remain high.

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