s17MDC48

FINANCIAL ANALYSING LABORATORY

MEASURING FINANCIAL HEALTH USING ALTMAN'S Z-SCORE ANALYSIS

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Altman's Z-Score Analysis:

The Z-score is a company scoring tool establishing a probability of default. It was created by Edward Altman in the 1960s.

It is based on a statistical approach combining financial ratios coming from the balance sheet and income statement and statistics about companies that went bankrupt.

Many tests were conducted to determine its reliability in predicting bankruptcy one or two years before they occur. The latest tests completed in 1999 gave a fair probability in 94% of cases.

Today the Z score is used by many credit analysis departments in the stock market sector (for which it was created) and the management of customer credit granted between companies.

In short, Z-Score Analysis is used to predict the chances of bankrupts and usage of red flag.

Formula:

Z = 1.2* A +1.4* B + 3.3* C +0.6* D +1* E

where**,**

A=Working Capital / Total Assets

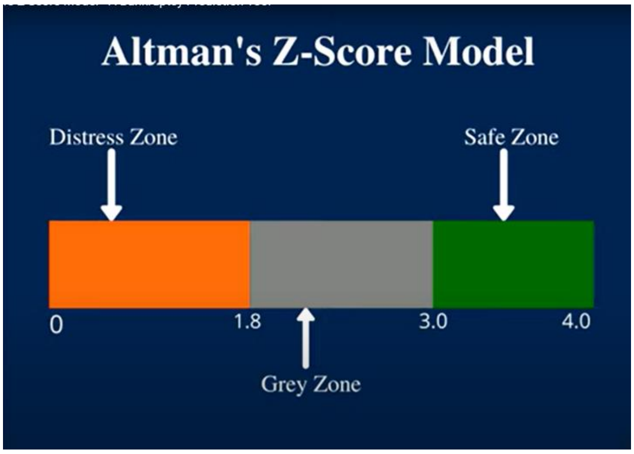
B=Retained Earnings / Total Assets

C=Earnings before Interest and Taxes / Total Assets

D=Equity / Total Liabilities

E=Sales/ Total Assets

Zones of Z-Score Analysis:



Safe Zone: A Z-score above 3.0 is considered to be in the safe zone. Companies in this range are considered financially stable and have a low risk of bankruptcy. They are generally viewed as healthy and robust.

Grey Zone: The grey zone typically ranges from 2.7 to 3.0. Companies falling within this range have a moderate risk of financial distress or bankruptcy. They are neither clearly safe nor distressed. Additional analysis and evaluation are necessary to determine their financial health accurately.

Distress Zone: A Z-score below 1.8 is considered to be in the distress zone. Companies in this range are considered financially distressed and face a higher risk of bankruptcy. These companies are generally viewed as having a high probability of financial difficulties and should be closely monitored.

Users:

Z-Score Analysis is widely used by:

- Banks
- Investors
- Auditors
- Organizations

Z score interpretation:

The higher the score, more the probability of failure is low. A score above 2.9 is very good (2.6 for non-manufacturing) where score below 1.23 (1.1 for non-manufacturing) indicates a very high probability of failure.

Scores between the two represent a grey area for medium-sized companies where the risk is present but not very strong.

Limitations:

Like any scoring tool, the Z score has intrinsically many limits. First, it focuses on purely financial criteria, which is very reductive in the assessment of a company. These criteria (which are essential, let us be clear) are only half of the elements of a complete analysis.

Positioning in the market, the outlook for the sector, macro-economic conditions, culture and corporate values concerning compliance with commitments ... etc. are all criteria necessary for quality risk analysis.

Furthermore, the score is based on financial items which are difficult to control. Are they correct? If not, the result will be wrong.

Finally, this type of tool can have a numbing side because the analyst sees only the score while the more interesting lies in the construction stages of the Z-score. A company can't be reduced to a score, that's absurd. This is a complex entity and the art of the credit analyst is to understand this reality that will allow him to build a personal conviction about its strengths and weaknesses, whether financial or other.

The Z-score is a tool that can be used in assessing the risk of failure of a business, but it is only one factor among others that allow to perform this exercise.