



## Score Squad: Assemble your dream team of investments with financial metrics

When considering a particular company or its stock for investment, what aspects do investors assess to help build a strategic portfolio aimed at optimal returns amid minimal risk? Investors usually track a variety of metrics and subjective aspects from the company's fundamentals to its management team and detailed outlook, before allocating their hard-earned money to the stock. For savvy and experienced investors, financial scores play a pivotal role in evaluating the performance and stability of companies across various industries. These scores serve as quantitative indicators that provide insights into a company's financial health, risk profile, and growth potential. Among the widely used financial scores are F, M, Z, and O, each offering a unique perspective on the different aspects of a company's operations and indicating the stock's worthiness in being added to a well-optimised portfolio.

### Assessing the Piotroski F-Score

In finance, the F-score is commonly associated with Joseph Piotroski's scoring system, developed to assess a company's financial strength. It uses nine criteria from the company's financial statements to determine a score ranging from 0 to 9. Higher scores indicate stronger financial health, with a focus on profitability, leverage, liquidity, source of funds, and operating efficiency.

A commendable case study demonstrating the practical application of the F-Score in investment decisions involves Ford, which faced significant financial challenges after the 2008 financial crisis. However, by implementing restructuring initiatives with enhanced financial metrics, the company witnessed an upward trend in its Piotroski Score. Astute fundamental analysts monitoring this increasing score could have identified Ford as a potential turnaround opportunity. Consequently, over subsequent years, Ford experienced a resurgence in its stock price, rewarding those who recognised its improving financial health, as indicated by the improving F-score<sup>[1]</sup>.

## Understanding the Beneish M-Score

The M-score is commonly associated with the Messod Beneish M-Score, a model designed to uncover earnings manipulation or financial fraud within a company's financial records. It aggregates various financial ratios and eight indicators to produce a single score, with higher scores suggesting a greater likelihood of manipulation. According to Beneish, companies demonstrating high sales growth, decreasing gross margins, rising leverage, and escalating operating expenses may be prone to manipulating profits by inflating cost deferrals, reducing depreciation, accelerating sales recognition, and increasing accruals.

A real-world example illustrating the relevance of the M-Score in uncovering fraudulent practices dates back to 1998 when a group of business students from Cornell University employed the model to forecast potential earnings manipulation by Enron Corporation. At that time, Enron's stock was trading at approximately half its eventual peak price of USD 90 per share before its notorious collapse and subsequent bankruptcy in 2001. Despite the cautionary advice from the Cornell students, their warnings went unheeded on Wall Street, leading to significant financial turmoil for Enron and its stakeholders[2].

## Decoding the Altman Z-Score

The Z-score, a statistical measure developed by Edward Altman in the 1960s, serves as a tool to predict bankruptcy risk in companies. It uses five financial ratios and indicators to evaluate a company's financial health, categorising it as either safe or distressed. Companies with lower Z-scores are deemed to be at higher risk of bankruptcy.

For example, Dunlop Rubber Company (India) Limited, established in 1926, began facing challenges in 2005, leading to operations ceasing at its Sahaganj factory. Upon assuming control, the Ruia Group inherited liabilities exceeding INR 650 crores. A few years later, the Calcutta High Court ordered the company's liquidation. Throughout this period, the company's poor performance ratios reflected an unstable Z-score, signalling potential bankruptcy well before the court's ruling[3].

## Analysing the O-Score

While the O-score lacks a widely recognised standard meaning in finance or statistics, it is typically associated with the financial model developed by Dr. James Ohlson for predicting bankruptcy. It is derived from a nine-factor linear combination of coefficient-weighted accounting ratios extracted from financial disclosure statements provided by publicly traded companies. This model is presented as a potential alternative to the Altman Z-score for assessing financial distress. The Ohlson O-score is commonly utilised by investors looking for companies with strong short-selling potential due to their underlying weaknesses.

In conclusion, financial scores are indispensable tools for investors looking to navigate the complex landscape of investment decisions, as is evident from their real-life applications. From the Piotroski F-Score to the Beneish M-Score, Altman Z-Score, and Ohlson O-Score, each metric offers unique insights into a company's financial health, risk factors, and potential for

---

growth or decline. By leveraging these quantitative indicators alongside qualitative assessments, investors can make informed decisions to construct well-optimised portfolios that balance returns with risk mitigation. Understanding the meanings and applications of these financial scores empowers investors to assess company performance accurately, identify potential opportunities or pitfalls, and ultimately enhance their investment strategies for long-term success.

This article aims to delve deeper into the meanings and applications of these financial scores, offering investors a comprehensive understanding of their significance in assessing company performance and mitigating investment risks.

---

**Statutory Details:** Multi-Act Trade and Investments Private Limited (“MATI”) (SEBI Registered Investment Adviser – Registration No. INA000008589) Disclaimer: This article and the views expressed therein has been made solely for information and educational purpose only. MATI or the employee does not solicit any course of action based on the information provided by it and the reader is advised to exercise independent judgment and act upon the same based on its/his/her sole discretion based on their own investigations and risk-reward preferences. The information in the article is meant for general reading and understanding purpose and is not meant to serve as a professional guide. The article is prepared on the basis of publicly available information, internally developed data and from sources believed to be reliable. This article and its contents are property of MATI, and no part of it or its subject matter may be reproduced, redistributed, passed on, or the contents otherwise divulged, directly or indirectly, to any other person (excluding the relevant person’s professional advisers) or published in whole or in part for any purpose without the prior written consent of MATI. If this article has been received in error, it must be returned immediately to MATI. MATI, its associates or any of their respective directors, employees, affiliates, or representatives do not assume any responsibility for, or warrant the accuracy, completeness, adequacy and reliability of such views and consequently are not liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way for decisions taken based on this article.