
Sunbeam

Example

Input Matrix.....1

Results Matrix.....2

M-SCORE CALCULATOR	Sunbeam	
	1997	1996
Year		
Acc. Receivable (Trade), Net	295.6	213.4
Current Assets	658	624.2
Current Liabilities	198.1	271.6
Total Assets	1120.3	1072.7
PPE Net	240.9	220.1
Long Term Debt	194.6	201.1
Sales (Net)	1168.2	984.2
Depreciation Expense	38.6	47.4
Cost of Goods Sold	837.7	900.6
SGA Expense	131	214
CFO	-8.2	14.16
Net Income (excl. Extr. Items)	109.4	-228.3
Notes		

1. Input the twelve (12) required financial statement data items in two consecutive years. The M-Score will be computed as of the current year. The data need not be based on annual reports: you can use latest (or trailing) twelve-months if you are willing to accordingly aggregate data from the income and cash flow statements.

2. The M-Score is calculated as in Beneish, Lee Nichols 2013, *Financial Analysts Journal* .

3. The calculator computes the M-Score, the odds ratio that the firm is a manipulator, and provides an assessment based on whether the model's variables are out of line relative to sample averages.

4. The use of the calculator is illustrated with data from the Sunbeam Case; the input and output are reproduced in the Sunbeam Example.

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Analysis*	Variable	Assessment
Day Sales in Receivables Index	1.1670	Assess revenue recognition
Gross Margin Index	0.3002	Neutral
Asset Quality Index	0.9282	Neutral
Sales Growth Index	1.1870	High sales growth
Depreciation Index	1.2831	Declining depreciation rate
SG&A Index	0.5157	Neutral
Accruals to Total Assets	0.1050	Assess changes in working capital
Leverage Index	0.7955	Neutral
M-Score	-1.884	
Estimated Probability	0.030	

Odds Ratio **4.31 to 1**

Interpreting the M-Score

M – Score = -4.840 + .920 Days is Receivables index
+ .528 Gross Margin Index
+ .404 Asset quality index
+ .892 Sales growth
+ .115 Depreciation index
- .172 SGA index
+ 4.679 Accruals to total assets
- .327 Leverage index

M-Score is a transformation of the estimated probability of manipulation implied by firm characteristics.

The cut-off for this model is NOT -2.22