

# Investment Analysis Scoring – DETAILED CALCULATION & MARKS DOCUMENT

This document is written for direct developer implementation. It explicitly defines **how many MARKS each factor carries**, how the score is calculated step-by-step, and shows a **complete worked example**. After reading this document, no interpretation should be required.

**Data Source:** All financial data points are available on **Screener.in**. The application should fetch the same fields from Screener (via scraping or API).

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## OVERALL SCORING STRUCTURE

Score Type	Maximum Marks
Piotroski F-Score	9
Warren Buffett Score	10
Benjamin Graham Score	10
Peter Lynch Score	10

Each score is calculated **independently**. Marks are **fixed**. No normalization, no dynamic weighting.

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## 1. PIOTROSKI F-SCORE (TOTAL = 9 MARKS)

The Piotroski score checks basic financial health. **Each factor carries exactly 1 mark**. If the condition is TRUE → add 1 mark. Else → add 0.

Factor	Screener Data Used	Condition	Marks
Net Profit Positive	P&L → Net Profit	Net Profit > 0	1
Operating Cash Flow Positive	Cash Flow → CFO	CFO > 0	1
ROA Improvement	Ratios → ROA	Current ROA > Previous Year	1
Cash Flow > Profit	CFO & Net Profit	CFO > Net Profit	1
Debt Reduction	Balance Sheet → Borrowings	Borrowings decreased YoY	1
Current Ratio Improvement	Ratios → Current Ratio	CR increased YoY	1
No Equity Dilution	Balance Sheet → Equity Capital	No new shares issued	1
Gross Margin Improvement	P&L → OPM %	OPM % increased YoY	1
Asset Turnover Improvement	Sales / Total Assets	Improved YoY	1

**Example (Petronet LNG):**

7 conditions satisfied → **Piotroski Score = 7 / 9**

Meaning: Company is financially healthy.

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## 2. WARREN BUFFETT SCORE (TOTAL = 10 MARKS)

This score measures long-term business quality. **Each factor carries exactly 2 marks**.

Factor	Screener Data	Condition	Marks
High ROE	ROE %	ROE > 15%	2
Low Debt	Debt to Equity	Debt/Equity < 0.5	2
Profit Consistency	Net Profit (5 Years)	Positive every year	2

Strong Cash Flow	Free Cash Flow	FCF positive	2
Reasonable Valuation	Stock PE vs Industry PE	Stock PE < Industry PE	2

**Example (Petronet LNG):**

4 factors satisfied →  $4 \times 2 = 8 / 10$

Meaning: Strong long-term business.

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### 3. BENJAMIN GRAHAM SCORE (TOTAL = 10 MARKS)

This score focuses on value and safety. Some factors carry **1 mark**, others carry **2 marks**.

Factor	Screener Data	Condition	Marks
Low P/E	Stock PE	P/E < 15	1
Low P/B	Book Value	P/B < 1.5	1
Debt Safety	Debt to Equity	Debt/Equity < 1	2
Strong Liquidity	Current Ratio	Current Ratio > 2	2
Earnings Stability	Net Profit (5 Years)	No loss year	2
Dividend Record	Dividend Payout %	Dividend paid regularly	2

**Example (Petronet LNG):**

7 marks obtained → **Graham Score = 7 / 10**

Additionally calculate Graham Number:

$$\sqrt{(22.5 \times \text{EPS} \times \text{Book Value})} \approx 395$$


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### 4. PETER LYNCH SCORE (TOTAL = 10 MARKS)

This score checks growth at a reasonable price. Growth-related factors carry higher weight.

Factor	Screener Data	Condition	Marks
EPS Growth	Profit Growth % (5Y)	Growth > 10%	3
PEG Ratio	PEG Ratio	PEG < 1.5	3
Low Debt	Debt to Equity	Debt/Equity < 0.5	2
Business Simplicity	Industry Type	Stable & simple business	2

**Example (Petronet LNG):**

6 marks obtained → **Peter Lynch Score = 6 / 10**

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## FINAL DECISION LOGIC

Count how many of the 4 scores are **greater than or equal to 7**:

- If 3 or more scores  $\geq 7 \rightarrow \text{BUY}$
- If exactly 2 scores  $\geq 7 \rightarrow \text{HOLD}$
- Otherwise  $\rightarrow \text{AVOID}$

**Worked Example (Petronet LNG):**

Piotroski = 7

Buffett = 8

Graham = 7

Lynch = 6

3 scores  $\geq 7 \rightarrow \text{FINAL DECISION: BUY}$

**IMPORTANT DEVELOPER NOTES**

- All marks are FIXED
- Do not change weights
- Show factor-wise marks on UI
- Same logic must work for every stock
- Also resolve the API key error blocking live data fetch