



Financial Statement Analysis: Back to the Basics

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Perspective on FSA: Understanding competitive advantage

- ◆ RIM provides the anchor for FSA:

$$V_0 = BVE_0 + \sum_{t=1}^{\infty} \frac{(ROE_t - c_e) \times BVE_{t-1}}{(1 + c_e)^t}$$

Competitive advantage
leaves an economic trace.

- ◆ Assume the accounting data are “unmanaged” but perhaps not distortion free.
- ◆ Does the firm have a competitive advantage?
- ◆ If so, what is the **source** and **durability** of that advantage?

FSA and equity investment settings

Sell-side or buy-side specialist at large institution

- Team of three analysts following just 10 or fewer firms.
- Recommendations and target prices derived from detailed financial model of each covered firm.

Mid-sized money management firm

- Roughly \$1 billion under management
- Three analysts covering 50 stocks in the portfolio.
- Universe of 700 or more portfolio candidates (market cap > \$4 b).
- Uses third-party valuation & analysis platform as starting point.

Quantitative investment shop

- Three analysts, large and diverse portfolio, rebalanced often.
- Stock selecting driven by multi-factor model of excess returns.

Setting 1: Specialist at large institution

- ◆ RIM value estimate driven by forecasted spread, growth, and duration.

$$V_0 = BVE_0 + \sum_{t=1}^{\infty} \frac{(ROE_t - c_e) \times BVE_{t-1}}{(1 + c_e)^t}$$

Price target \uparrow V_0

Duration \curvearrowright ∞

Spread \curvearrowright $(ROE_t - c_e) \times BVE_{t-1}$

Growth: top line, plough back, new investment \uparrow $(1 + c_e)^t$

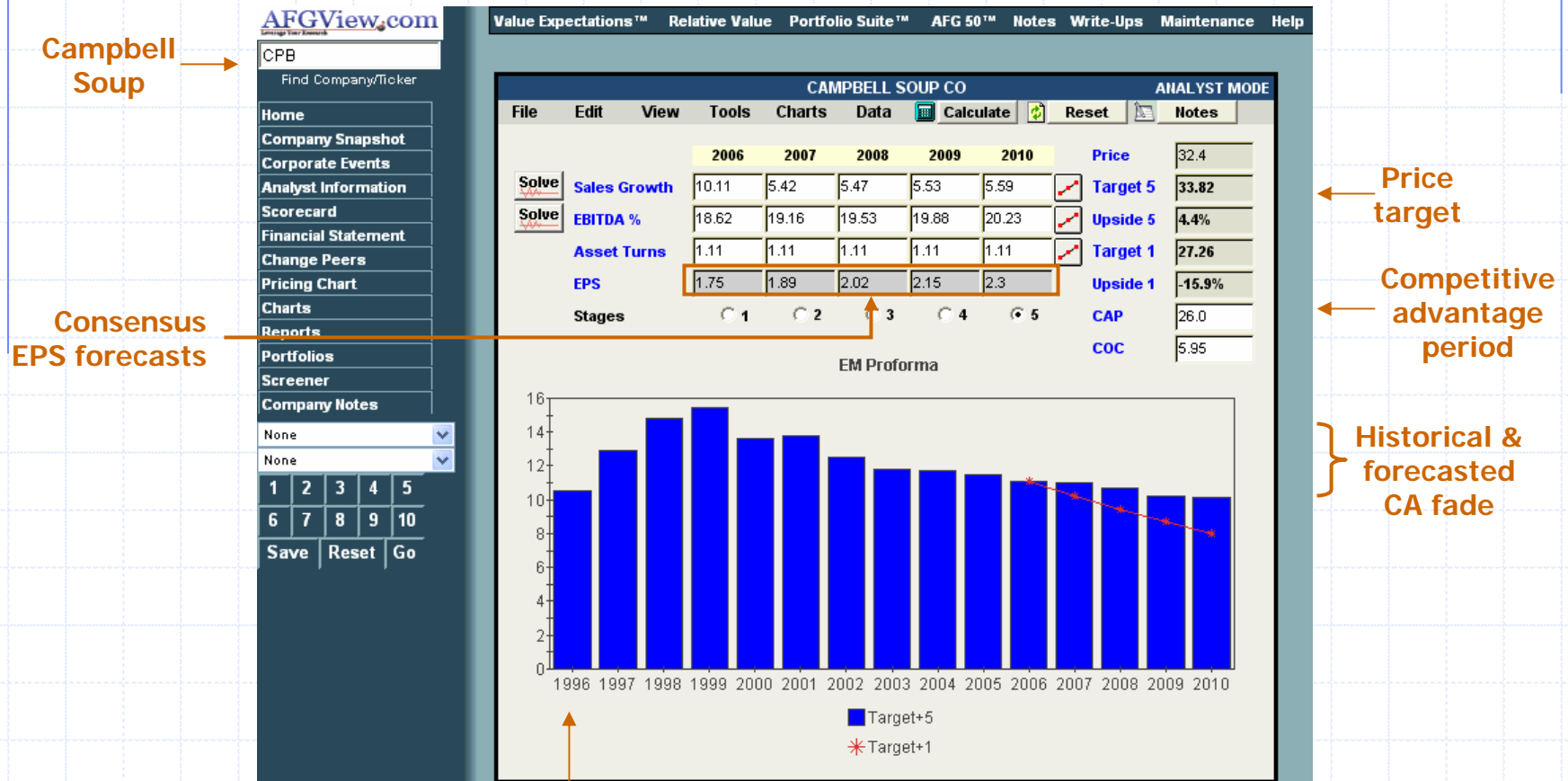
- Build detailed financial model of the company.
- Microscopic examination of financial reports & disclosures.
- Forecasts grounded in rich contextual information.
- Stock recommendation / selection based on V/P

Setting 2:

Mid-sized money manager

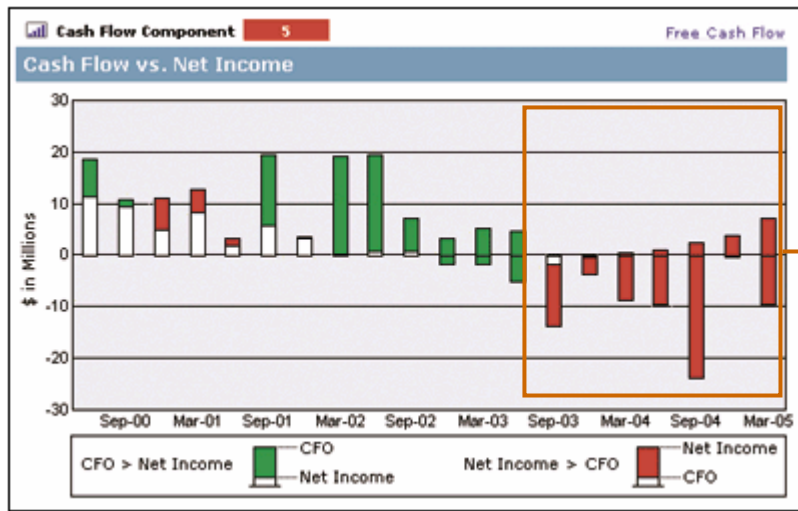
- ◆ Stock selection again governed by RIM-like value estimate and V/P.
 - **Third-party platforms** provide real-time fundamentals, consensus earnings and sales forecasts, and valuation calculations.
 - **Stock screens** narrow the search for portfolio replacements.
 - **FSA graphs** provide snap-shots of past financial performance and “red flag” alerts.
 - Limited use of traditional microscopic FSA tools and techniques.
 - However, valuation model forecasts must still capture expectations about competitive advantage.

Setting 2: Applied Finance Group platform



Proprietary ROC > COC, meaning that CPB enjoys a competitive advantage

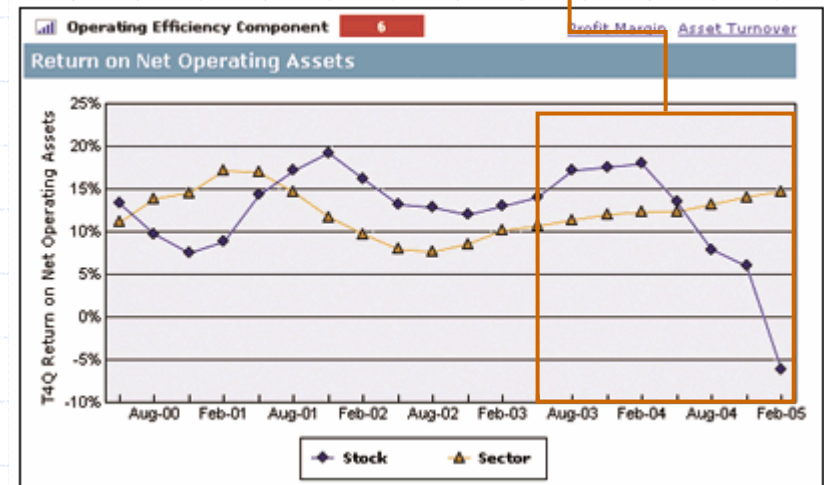
Setting 2: Starmine's FSA platform



Earnings quality flag

Deteriorating performance when compared to peer firms and sector

- Charts based on Compustat data.
- Intended to help the analyst:
 - Monitor earnings quality.
 - Analyze earnings drivers and sustainability.
 - Compare fundamentals to peers.
 - Recognize financial statement trends.



Setting 3:

Quantitative investment shop

- ◆ Large and diverse stock portfolio built around multi-factor model of fundamentals:

Prudential's PSE Model

$$\left(R_t - E[R_t] \right) = \beta_0 + \sum_{k=1}^7 \beta_k X_k + \varepsilon$$

where:

R is the stock's monthly return

E[R] is expected return (e.g. CAPM)

X1 is earnings surprise (SUE)

X2 is EPS estimate revision

X3 is relative price strength

X4 is **ROE momentum**

X5 is margin expansion

X6 is forward P/E relative to sector average

X7 is cash flow / assets

- Factor coefficients from historical data on excess returns.
- Composite factor score is used to rank stocks.
- Trading rule specifics are proprietary and not disclosed.

How our work product helps

Specialist at large institution

- ◆ Explain accounting practices and how to reverse engineer financial statement disclosures.
- ◆ Identify accounting judgments and potential “quality” distortions.
- ◆ Describe financial ratios and illustrate their use.

Mid-sized money management firm

- ◆ Test conjectures about:
 - incentives that motivate intentional distortions.
 - earnings predictability.
 - information content and value relevance of financial statement items.

Quantitative investment shop

- ◆ Uncover empirical regularities:
 - among fundamental signals, future earnings and stock returns
 - accounting “anomalies”.