Summary and thoughts

1. Assign values into the ratio models.
2. Apply to different industries.
3. Proportion for portfolios

Group 1

STA:

[(IS) Net Income – (CF) Cash from Operating Activities]/ (BS) Total Assets

Earnings is being padded or manipulated

Net Income < Cash from Operating Activities

SNOA:

(Operating Assets – Operating Liabilities)/ (BS) Total Assets

Operating Assets:

    (BS) Total Assets – (BS) Cash & Equivalents

Operating Liabilities:

    (BS) Total Assets – (BS) Total Current Liabilities – (BS) Long Term Debt – (BS) Minority Interest – (BS) Redeemable Preferred Stock, Total – (BS) Preferred Stock – Non Redeemable, Net – (BS) Total Equity

"Bloated Balance Sheet", companies have assets on their balance sheet, that aren't being used to generate income or earnings

PROBM (1 or less)

DSRI:

tr_avg =[(BS) Total Receivables, Net(1) +(BS) Total Receivables, Net(2)]/2

Y1 = (IS) Total Revenue /tr_avg

ratio1 = 365/Y1

tr_avg2 =[(BS) Total Receivables, Net(2) +(BS) Total Receivables, Net(3)]/2

Y2 = (IS) Total Revenue(2) /tr_avg2

Ratio2 = 365/Y2

dsri = ratio1/ratio2

Index that measures whether your payments owed are taking longer to recoup.

GPMI:

gp1 = (IS) Gross Profit(1)/ (IS) Total Revenue(1)

gp2 = (IS) Gross Profit(2)/ (IS) Total Revenue(2)

gp2/gp1

AQI:

aqi1 = [(BS) Total Assets(1) - (BS) Total Current Assets(1) – (BS) Property/Plant/Equipment, Total – Gross(1) + (BS) Accumulated Depreciation, Total(1)]/ (BS) Total Assets(1)

aqi2 = [(BS) Total Assets(2) - (BS) Total Current Assets(2) – (BS) Property/Plant/Equipment, Total – Gross(2) + (BS) Accumulated Depreciation, Total(2)]/ (BS) Total Assets(2)

aqi = aqi2/aqi1

It is your intangible assets. If your intangible assets are losing value, there is a big problem because intangible assets are difficult to price AND are priced by the company itself. So why the hell is this company slashing the value of its intangible assets!!!!

SGI:

sgi = (IS) Total Revenue(2)/ (IS) Total Revenue(1)

self explanatory.

DEPI:

 depi = (IS)Depreciation/Amortization(2)/ (IS)Depreciation/Amortization(1)

Depreciation from the income statement gives us current amount depreciated. If the depreciation amount from period to period is decreasing, that's problematic because that could mean that they are trying to hide, lesser earning. Because when you factor depreciation, it reduces earnings. So IF the company is reducing the rate at which it depreciates that could be because they are attempting to hide weaker earnings.

 SGAI:

sgai = (IS) Selling/General/Admin. Expenses, Total (1) /(IS) Selling/General/Admin. Expenses, Total (2)

The idea behind this index is that the management of the company is increasing their salary, so that they are trying to cash out through their salaries vs equity in the business.

LVGI:

lvgi1 = (BS) Total Debt/(BS) Total Assets

lvgi2 = (BS) Total Debt (2)/(BS) Total Assets(2)

lvgi = lvgi1/lvgi2

self explanatory

TATA

tata1 = [(IS) Operating Income - (CF) Cash from Operating Activities]/(BS) Total Assets

tata2 = [(IS) Operating Income (2) - (CF) Cash from Operating Activities(2)]/(BS) Total Assets(2)

tata = tata1/tata2

*this formula is different than the book due to limitations in getting data. In this form it basically is measuring the accruals

Group 2 (4 years for exam)

CFOA:

Sum(4 years Free Cash Flow) / (BS) Total Assets(4)

Free Cash Flow:

(IS) Net income + (IS) depreciation and amortization – (CF) changes in working capital – (CF) capital expenditures

Free cash flow that is generated by the initial investment of total assets.

4ROC: efficiency

$4ROC=[(1+ROC(1))*(1+ROC(2))*(1+ROC(3))*(1+ROC(4))]^{(1/4)} - 1$

ROC = (IS) Operating Income/[((BS) Property/Plant/Equipment, Total – Gross + (BS) Accumulated Depreciation, Total)+ ((BS) Total Current Assets – (BS) Total Current Liabilities)]

It's a geometric mean, which is less than an arithmetic mean if the numbers are volatile. ROC measures how **efficient** a company is at generating income on the money it invested in its operations.

(Investors look at Operating income, figure out what the company are doing by deconstruct operating income.)

To get net PPE, add PPE –Accumulated depreciation

PPE is the expensive startup cost of a company.

4ROA:

$4ROA=[(1+ROA(1))*(1+ROA(2))*(1+ROA(3))*(1+ROA(4))]^{(1/4)} - 1$

ROA = (IS) Net Income before Extraordinary Items/ (BS) Total Assets

Another way to calculate how **efficient** a company is at generating income from its invested capital in operations.

MG:

MG =[(1+(GM(1)/GM(2))*(1+(GM(2)/GM(3))*(1+(GM(3)/GM(4))]^(1/3)-1

GM = (IS) Gross Profit/ (IS) Total Revenue

We want to calculate the margin of growth as a geometric mean. The purpose is to see if we had **consistent growth**.

Pricing power of the company. Higher ratio—higher price power.

MS:

mean(GM)/SD(GM)

GM = (IS) Gross Profit/ (IS) Total Revenue

Mean stability calculates the stability of the margin growth

MG is basically whether a company has pricing power and growing profit margins and MS is how stable is their pricing power and the growth of their profit margins. (WD40 example)