Comparative Metrics & Conversion Cycles[1]
Quick Sheet[2]

Cash Burn/Build and Liquidity Ratios

Cash Build = Revenues_1 – ($\text{Accounts Receivables}_1$ – $\text{Accounts Receivables}_0$)

Cash Burn = $\text{Operating Expenses}_1$ + Interest Paid_1 + Taxes Paid_1 + (Inventory_1 – Investory_0) – $\text{Current Liabilities}_1$ – $\text{Current Liabilities}_0$ + ($FA_1 - FA_0 + Dep\&Am_1$)

Cash Coverage Ratio = $\dfrac{EBIT + Depreciation \ \& \ Amortization}{Interest \ Expense} = \dfrac{EBITDA}{Interest \ Expense}$

Current Ratio = $\dfrac{Current \ Assets}{Current \ Liabilities}$

Quick Ratio = $\dfrac{Cash + Accounts \ Receivaaaables}{Current \ Liabilities}$

Net Cash Burn = Cash Build – Cash Burn

Comparative Metrics and Ratios

b = Retention Ratio **=** $\dfrac{NI - Dividends}{NI}$; **1-b** = Payout Ratio **=** $\dfrac{Dividends}{NI}$

DE = Debt to Equity Ratio = $\dfrac{Total \ Debt}{Total \ Equity}$

Debt Ratio = $\dfrac{Total \ Debt}{Total \ Assets} = 1 - \dfrac{1}{Equity \ Multiplier}$

EM = Equity Multiplier = $\dfrac{TA}{TE} = 1 + \dfrac{Total \ Debt}{Total \ Equity}$

Equity Ratio = $\dfrac{Total \ Equity}{Total \ Assets}$

Equity Turns = $\dfrac{Total \ Sales}{Total \ Equity}$

g = growth rate of the subject cash flow variable

$$g = \dfrac{Cash \ Flow \ Variable_{END} - Cash \ Flow \ Variable_{BEGINNING}}{Cash \ Flow \ Variable \ Year_{BEGINNING}} \ (\mathbf{100})$$

g = IR x ROIC - when **g** is calculated in this manner it is not likely to be the same as the g calculated above. This form of g is the level of growth the firm should be able to sustain given its current level of ROIC, investment rate, and capitalization.

IGR = Internal Growth Rate $\dfrac{ROA \ x \ b}{1 - (ROA \ x \ b)}$

LTE = Liabilities to Shareholder Equity = $\dfrac{Total \ Liabilities}{Shareholder \ Equity}$

PE Ratio = Price/Earnings Ratio = PPS/EPS

PE Ratio is most commonly applied to common stock values and rarely applied to preferred stock shares

PM = Profit Margin = $\frac{Net\ Income}{Sales}$

The term "Sales" in finance is often used to represent total income or total revenue

PPS = Price Per Share = Market Price Per Share

ROA = Return on Assets = $\frac{NI}{TA}$

ROE = Return on Equity = $\frac{NI}{TE}$

ROA$_{DUPONT}$ = Dupont Identity = **PM * Equity Turns * Equity Ratio** = $\frac{NI}{Sales}\ x\ \frac{Sales}{TE}\ x\ \frac{TE}{TA}$

ROE$_{DUPONT}$ = Dupont Identity = **PM * TAT * EM** = $\frac{NI}{Sales}\ x\ \frac{Sales}{TA}\ x\ \frac{TA}{TE}$

ROIC = Return on Invested Capital = $\frac{NOPLAT}{IC}$

SGR = Sustainable Growth Rate = $\frac{ROE\ x\ b}{1-(ROE\ x\ b)}$

TIE = Times Interest Earned = $\frac{EBIT}{Interest\ Expense}$

Total Assets Turns = TAT = $\frac{Sales}{TA}$

Total Debt Ratio = $\frac{Total\ Assets-Total\ Equity}{Total\ Assets} = \frac{Total\ Debt}{Total\ Assets}$

Conversion Cycles and Turnover Ratios (Rates)

These conversion cycles are represented on an annual basis (365 days per year), but could be easily adjusted to any accounting period

Average Daily COGS = $\frac{COGS}{365}$

Average Inventory = $\frac{INV_{beginning}+INV_{end}}{2}$

CCC = Cash Conversion Cycle (Sale to Cash Conversion Period) = **DIO** + **DSO** − **DPO**

Days' Costs in Payables = $\frac{365}{Payables\ Turnover}$

Days' Sales in Inventory = $\frac{365}{Inventory\ Turnover}$

Days' Sales in Receivables = $\frac{365}{Receivables\ Turnover}$

DIO = Days Inventory Outstanding = $\frac{Average\ Inventory}{COGS}\ x\ 365$

DSO = Days Sales Outstanding = $\frac{(AR_{beginning}+AR_{ending})/2}{Annual\ Revenue/365}$

DPO = Days Payable Outstanding = $\frac{(AP_{beginning}+AP_{ending})/2}{COGS/365}$

Inventory Turnover = $\frac{COGS}{Inventory}$

ISCC = Inv/Sales Conversion Cycle = Inventory to Sales Conversion Period = $\frac{Average\ Inventory}{Avereage\ Daily\ COGS}$

Payables Turnover= $\frac{COGS}{AP}$

PPCC = Purchase to Pmt Conversion Cycle = $\dfrac{((AP_{beginning}+Accued\ Liabilities_{beginning})+(AP_{end}+Accued\ Liabilities_{end}))/2}{COGS/365}$

Receivables Turnover = $\dfrac{Sales}{Accounts\ Receivable}$

SCCC = Sale-to-Cash Conversion Cycle = $\dfrac{Average\ AR}{Net\ Sales/365}$

Market Value Ratios

Price to Earnings (PE) Ratio = $\dfrac{Common\ Equity\ Price\ Per\ Share}{Earnings\ Per\ Share} = \dfrac{Market\ Cap\ of\ Common\ Equity\ Shares}{Net\ Income-Dividends\ Paid\ to\ Preferred}$

PE Ratio is typically applied to a firm's common shares after required dividends are paid to preferred shareholders

Price to Sales Ratio = $\dfrac{Common\ Equity\ Price\ Per\ Share}{Sales\ Per\ Share\ Common\ Equity}$

Market to Book Ratio = $\dfrac{Market\ Value\ Per\ Equity\ Share}{Book\ Value\ Per\ Equity\ Share}$

Market to Book Ratio may be considered for either Common or Preferred Shares separately or the two share types combined

EBITDA Ratio = $\dfrac{Enterprize\ Value}{EBITDA}$