

## LECTURE 9

### Chapter 14

#### Financial Analysis – example (Celerity Technology)

– PRINT SPREADSHEET ON FINANCIAL ANALYSIS FOR CELERITY TECHNOLOGY

Perfect World – all cash – Lemonade stand



I/S and CF – Differences (Taxes – Depreciation, Amortization of Fees (Capitalized))

- Capex (Non deductible)
- Working Capital (Timing Differences) – Changes in Balance Sheet
- Financing Activities (New/repayment of debt)

#### Income Statement

- Unlike the Balance Sheet that is a snap-shot at a particular time, the Income Statements show the flow over time (one year / one quarter/ one month)
- Measures profitability for that period
- EBITDA

#### Cash Flow Statement

- Working Capital
- Capex (Maintenance / Growth Capex)
- Acquisitions
- Selling Assets/property – Disposition of Assets
- Principal Payments
- Raising New Financing/IPO Equity
- Beginning/Ending Cash

Financial Ratios

**Definition**

**Trend Analysis Ratios**

Revenue Growth  
Stock one-year Return

**Liquidity Ratios**

Current Ratio CA/CL  
Quick ratio (Cash + A/R) / CL  
Accounts Receivable Turnover (ART) Revenue/Avg AR  
Accounts Receivable Days 365 / ART

**Solvency Ratios**

Debt/Equity Ratio LTD / Equity  
LTD / Total Capitalization LTD / (LTD + Equity)  
**EBITDA / Interest (Coverage Ratio)** EBITDA / Interest  
EBIT / Interest  
Fixed Charge Coverage Ratio (EBITDA-Capex)/(Int+ST+ LT  
Cash Avail.for Debt Service / Debt Pmts)  
Service (CABFA + int.) / (Int. + ST+LT  
Pmts)  
**LTD / EBITDA (Leverage Ratio)** LTD /  
EBITDA

**Activity Ratios / Operating Ratios**

Inventory Ratio (IR) Cost of Revenues/Avg Inventory  
Inventory Ratio - Days 365 / IR  
Fixed Asset Turnover Ratio Rev / Avg of FA  
Asset Turnover Ratio Rev / Avg of Total Assets

**Profitability Ratios**

Gross Margin Gross Margin / Revenues  
EBITDA Margin EBITDA / Revenue  
EBIT Margin EBIT / Revenue  
Return on Assets (ROA) NI / Avg Assets  
Gross Return on Assets EBIT / Avg Assets  
Return on Equity (ROE) NI / Avg Equity

**Market Ratios**

Stock Price  
Total Shares Outstanding  
Market Value of Equity  
Market-to-Book  
Earnings Per Share (EPS) NI / Avg Shares Outstanding  
Price Earnings Ratio (PE) Market Price / EPS  
EV / EBITDA (MVE + LTD + STD - Cash) / EBITDA

Professor Chris Droussiotis

**Other Ratios**

Altma's Z-score

**Z Formula**

$$Z = 1.2x (WC/TA) + 1.4x(RE/TA)+3.3x(EBIT/TA)+0.6x(MVE/Liabilities) + 0.99x(Sales/TA)$$

WC = Working Capital

TA=Total Assets

RE=Retained Earnings

MVE=Market Value of Equity

<b><u>Z-Score</u></b>	<b><u>Bankruptcy</u></b>
1.8x or less	Likely
Between 1.8 - 3.0	Uncertain
3.0 or above	Not likely

Three questions:

1. How does it compare versus last year
2. How does it compare versus their peers / Competition
3. How does it compare versus expectations