

## Using Financial Statement Information Pratt, Financial Accounting 7e, Chapter 5

Two Uses for Financial Accounting Information:

- Feedback Value
- Predictive Value

Accounting Values and Market Values of Equity

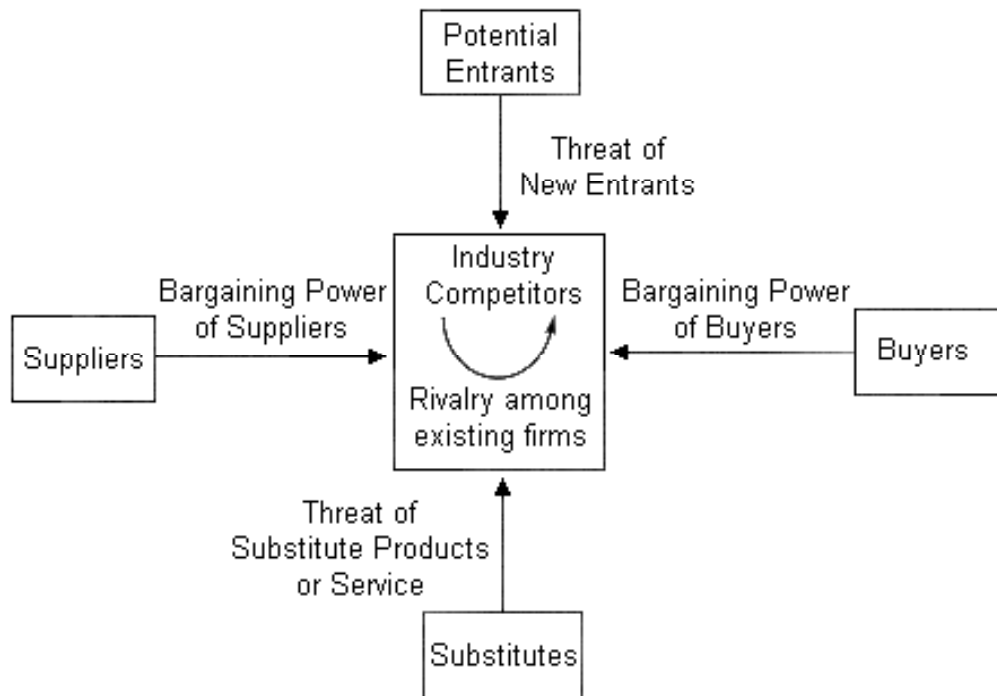
$$\begin{array}{rcccl} & & \text{Adjustments for:} & & \\ & & 1. \text{ Business} & & \\ \text{Book} & & \text{Environment} & & \text{True} \\ \text{Value} & + & 2. \text{ Unrecorded} & = & \text{(Market)} \\ \text{(A-L)} & & \text{Events} & & \text{Value} \\ & & 3. \text{ Management Bias} & & \end{array}$$

Example (Apple Computer)

$$\begin{array}{rcccl} \text{Book} & & & & \text{True} \\ \text{Value} & & & & \text{(Market)} \\ 39.572\text{B-} & + & \text{Adjustments for:} & = & \text{Value} \\ 18.542\text{B} & & & & 101\text{B} \\ =21.030\text{B} & & & & \end{array}$$

# Elements of Financial Statement Analysis

## 1. Assess the business environment and strategy



## 2. Read and study the financial statements and footnotes

a. The Audit Report

b. Significant Transactions

i. Mergers and acquisitions

ii. Divestitures and disposals

iii. Litigation

iv. Extraordinary items

v. Changes in accounting methods

c. Financial Statements and Footnotes

### 3. Assess Earnings Quality

- a. Overstatement of Operating Performance (overstating revenues and understating expenses)
- b. Taking a Bath
- c. Using Reserves to Smooth Earnings
- d. Off-Balance-Sheet Assets and Liabilities
- e. Unrecorded Events

### 4. Analyze Financial Statements

- a. Comparison
  - i. Across time
  - ii. Between firms in the same industry
- b. Common Size Financial Statements
  - i. Useful to compare across time and between firms – especially firms that differ in size
  - ii. Income Statement items are scaled by Net Sales
  - iii. Balance Sheet Items are scaled by Total Assets

**Apple**  
**Common Size Balance Sheet**

	<u>2007</u>	<u>2008</u>	<u>2007</u>	<u>2008</u>
Current Assets:				
Cash	9,352	11,875	36.9%	30.0%
ST Investments	6,034	12,615	23.8%	31.9%
Accounts Receivable	1,637	2,422	6.5%	6.1%
Inventories	346	509	1.4%	1.3%
Other	<u>4,587</u>	<u>7,269</u>	<u>18.1%</u>	<u>18.4%</u>
Total Current Assets	<u>21,956</u>	<u>34,690</u>	<u>86.6%</u>	<u>87.7%</u>
Property, Plant and Equipment	1,832	2,455	7.2%	6.2%
Intangible Assets	337	492	1.3%	1.2%
Other	<u>1,222</u>	<u>1,935</u>	<u>4.8%</u>	<u>4.9%</u>
Total Assets	<u><u>25,347</u></u>	<u><u>39,572</u></u>	<u><u>100.0%</u></u>	<u><u>100.0%</u></u>
Current Liabilities:				
Accounts Payable	4,970	5,520	19.6%	13.9%
Accrued Expenses	<u>4,329</u>	<u>8,572</u>	<u>17.1%</u>	<u>21.7%</u>
Total Current Liabilities	<u>9,299</u>	<u>14,092</u>	<u>36.7%</u>	<u>35.6%</u>
Non-Current Liabilities	<u>1,516</u>	<u>4,450</u>	<u>6.0%</u>	<u>11.2%</u>
Total Liabilities	<u>10,815</u>	<u>18,542</u>	<u>42.7%</u>	<u>46.9%</u>
Stockholders' Equity				
Common Stock	5,368	7,177	21.2%	18.1%
Retained Earnings	<u>9,164</u>	<u>13,853</u>	<u>36.2%</u>	<u>35.0%</u>
Total Stockholders' Equity	<u>14,532</u>	<u>21,030</u>	<u>57.3%</u>	<u>53.1%</u>
Total Liabilities & Stockholders' Equity	<u><u>25,347</u></u>	<u><u>39,572</u></u>	<u><u>100.0%</u></u>	<u><u>100.0%</u></u>

**Apple**  
**Common Size Income Statement**

	2007	2008	2007	2008
Net Sales	24,006	32,479	100.0%	100.0%
Cost of Sales	15,582	21,334	64.9%	65.7%
Gross Profit	8,424	11,145	35.1%	34.3%
Operating Expenses				
Research & Development	782	1,109	3.3%	3.4%
Selling, Gen. and Admin. Expenses	2,963	3,761	12.3%	11.6%
Operating Income	4,679	6,275	19.5%	19.3%
Non Operating Income	599	620	2.5%	1.9%
Net Income before Tax	5,278	6,895	22.0%	21.2%
Income Tax	1,512	2,061	6.3%	6.3%
Net Income	3,766	4,834	15.7%	14.9%

## Ratio Analysis

### Profitability Ratios

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average SHE}}$$

$$\text{Return on Assets} = \frac{\text{Net Income before Interest}^*}{\text{Average Assets}}$$

\* Net Income before Interest = Net Income +  
(Interest Expense \* (1-Tax Rate))

$$\text{Return on Sales} = \frac{\text{Net Income before Interest}}{\text{Net Sales}}$$

For Apple

Ratio	2007	2008
Return on Equity		
Return on Assets		
Return on Sales		

Note: For 2006 SHE=9,984 and Assets=17,205

## Leverage Ratios

$$\text{Common Equity Leverage} = \frac{\text{Net Income}}{\text{Net Income Before Interest}}$$

$$\text{Capital Structure Leverage} = \frac{\text{Average Assets}}{\text{Average SHE}}$$

$$\text{Debt/Equity Ratio} = \frac{\text{Average Total Liabilities}}{\text{Average Total SHE}}$$

$$\text{Long-Term Debt Ratio} = \frac{\text{Long-Term Liabilities}}{\text{Total Assets}}$$

### For Apple

Ratio	2007	2008
Common Equity Leverage		
Capital Structure Leverage		
Debt/Equity Ratio		
Long-Term Debt Ratio		

Note: For 2006 SHE=9,984, Liabilities=7,221, and Assets=17,205; LT Debt for all years = 0

## Solvency Ratios

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{\text{Quick Assets}^*}{\text{Current Liabilities}}$$

\* Quick Assets = Cash + Marketable Securities  
+ Net Accounts Receivable

$$\text{Interest Coverage} = \frac{\text{Net Income before Interest and Taxes}}{\text{Interest Expense}}$$

$$\text{Accts. Pay. Turnover} = \frac{\text{Cost of Sales}}{\text{Avg. Accts. Pay.}}$$

For Apple

Ratio	2007	2008
Current Ratio		
Quick Ratio		
Accts. Pay. Turnover		

Note: For 2006 Accts. Payable = 3,390

## Asset Turnover Ratios

$$\text{Receivables Turnover} = \frac{\text{Net Credit Sales}}{\text{Avg. Accts. Rec.}}$$

$$\text{Inventory Turnover} = \frac{\text{Cost of Sales}}{\text{Avg. Inventory}}$$

$$\text{Fixed Asset Turnover} = \frac{\text{Sales}}{\text{Avg. Fixed Assets}}$$

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{Avg. Total Assets}}$$

### For Apple

Ratio	2007	2008
Receivables Turnover		
Inventory Turnover		
Fixed Asset Turnover		
Total Asset Turnover		

Note: For 2006 Accts. Rec. = 1,252, Inventory = 270, PPE = 1,281, Assets = 17,205

## Other Ratios

$$\text{Earnings per Share} = \frac{\text{Net Income}}{\text{Avg. \# of Common Shares}}$$

$$\text{Price/Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

$$\text{Dividend Yield Ratio} = \frac{\text{Dividends per Share}}{\text{Market Price per Share}}$$

$$\text{Share Price Return} = \frac{(\text{Market Price}_1 - \text{Market Price}_0) + \text{Dividends}}{\text{Market Price}_0}$$

For Apple

	2006	2007	2008
EPS	-	4.04	5.48
Stock Price	85.85	166.39	113.66

Apple does not pay dividends.

For Apple

Ratio	2007	2008
Price/Earnings Ratio		
Share Price Return		