

FINANCIAL ANALYSIS ORIENTATION: FINANCIAL STATEMENT ANALYSIS

The Big Picture

- ❑ Common-size statements
- ❑ Ratio analysis
 - Liquidity ratios
 - Leverage ratios
 - Asset management ratios
 - Profitability ratios
 - Market value ratios
- ❑ DuPont Identity
- ❑ Uses and limitations of ratio analysis

Common-Size Financial Statements

Balance sheet items as a percentage of _____.

Income statement items as a percentage of _____.

Suzie Q Corporation Balance Sheet December 31, 2018

| Assets: | | | Liabilities & Equity: | | |
|------------------|--------------|---------------|-----------------------|--------------|---------------|
| Current Assets: | | | Current Liabilities: | | |
| Cash | \$ 80 | 12.5% | Accts. Payable | \$ 95 | 14.8% |
| Accounts Rec. | 140 | 21.9% | Notes Payable | <u>110</u> | <u>17.2%</u> |
| Inventory | <u>155</u> | <u>24.2%</u> | Total CL | \$205 | 32.0% |
| Total CA | \$375 | 58.6% | Long-term Debt: | 120 | 18.8% |
| Fixed Assets: | | | Common Stock | | |
| Net Fixed Assets | <u>265</u> | <u>41.4%</u> | Retained Earnings | <u>275</u> | <u>43.0%</u> |
| Total Assets | <u>\$640</u> | <u>100.0%</u> | Total Liab. & S.E. | <u>\$640</u> | <u>100.0%</u> |

Suzie Q Corporation
Income Statement
For Year Ended December 31, 2018

| | | |
|--------------------|-------------|-------------|
| Sales | \$910 | 100.0% |
| Cost of Goods Sold | 470 | 51.6% |
| SG&A Expenses | 210 | 23.1% |
| Depreciation | <u>60</u> | <u>6.6%</u> |
| EBIT | \$170 | 18.7% |
| Interest Expense | <u>40</u> | <u>4.4%</u> |
| EBT | \$130 | 14.3% |
| Taxes | <u>52</u> | <u>5.7%</u> |
| Net Income | <u>\$78</u> | <u>8.6%</u> |

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Liquidity Ratios

- ❑ Current Ratio
= Current Assets / Current Liabilities

- ❑ Quick Ratio
= (Current Assets - Inventory) / Current Liabilities

- ❑ Cash Ratio
= Cash / Current Liabilities

Leverage Ratios

- ❑ Debt Ratio
= Total Liabilities / Total Assets

- ❑ Debt-Equity Ratio
= Total Liabilities / Total Equity

- ❑ Equity Multiplier
= Total Assets / Total Equity

Leverage Ratios

More Leverage Ratios

- ▣ Times Interest Earned (TIE) Ratio
= $\text{EBIT} / \text{Interest}$
- ▣ Cash Coverage
= $[\text{EBIT} + (\text{Depreciation} \ \& \ \text{Amort.})] / \text{Interest}$

Asset Management Ratios

- ❑ Inventory Turnover
= $\text{COGS} / \text{Inventory}$
- ❑ Days' Sales in Inventory
= $365 \text{ Days} / \text{Inventory Turnover}$
- ❑ Receivables Turnover
= $\text{Sales} / \text{Accounts Receivable}$
- ❑ Days' Sales in Receivables
= $365 \text{ Days} / \text{Receivables Turnover}$
- ❑ Total Asset Turnover
= $\text{Sales} / \text{Total Assets}$

Profitability Ratios

- ❑ Net Profit Margin
= $\text{Net Income} / \text{Sales}$
- ❑ EBITDA Margin
= $\text{EBITDA} / \text{Sales}$
- ❑ Return on Assets (ROA)
= $\text{Net Income} / \text{Total Assets}$
- ❑ Return on Equity (ROE)
= $\text{Net Income} / \text{Total Equity}$

Market Value Ratios

- ▣ *Earnings per Share (EPS)*
= *Net Income / Shares Outstanding*
- ▣ *Price/Earnings (PE) Ratio*
= *Price per Share / Earnings per Share*
- ▣ *Market-to-Book (M/B) Ratio*
= *Market Value per Share / Book Value per Share*

More Market Value Ratios

- ▣ *Market Capitalization*
= *Price per Share X Shares Outstanding*
- ▣ *Enterprise Value*
= *Market Cap. + Market Value of Interest-bearing Debt - Cash*
- ▣ *Enterprise Value Multiple*
= *EV / EBITDA*

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DuPont Identity

DuPont Identity

- ▣ ROE = Profit Margin
x Total Asset Turnover
x Equity Multiplier

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Limitations to Ratio Analysis

- ❑ Benchmarking/conglomerates
- ❑ Industry median
- ❑ Inflation
- ❑ Seasonal factors
- ❑ Window dressing
- ❑ Different operating and accounting practices

Chapter 3 Suggested Problems

- ❑ Concept Questions
1, 8, and 9 (which should say EBITDA/ Assets)
- ❑ Questions and Problems
1, 2, 11, 14, and 16

| | Comparables (Median) | The Home Depot, Inc. | Rank of Home Depot |
|-----------------------------------|-------------------------|-------------------------|--------------------------|
| Liquidity Ratios | | | |
| Current Ratio | 1.14 | 1.11 | 3 |
| Quick Ratio | 0.66 | 0.28 | 4 |
| Cash Ratio | 0.36 | 0.11 | 4 |
| Leverage Ratios | | | |
| Debt Ratio | 0.74 | 1.04 | 1 |
| Debt-Equity Ratio | 2.82 | -24.43 | 5 |
| Equity Multiplier | 3.82 | -23.43 | 5 |
| Times Interest Earned (TIE) Ratio | 8.04 | 15.01 | 2 |
| Cash Coverage Ratio | 13.83 | 16.79 | 3 |
| Asset Management Ratios | | | |
| Inventory Turnover | 6.79 | 5.10 | 4 |
| Days' Sales in Inventory | 54.63 | 71.54 | 2 |
| Receivables Turnover* | 17.50 | 55.89 | 1 |
| Days' Sales in Recievables* | 20.86 | 6.53 | 3 |
| Total Asset Turnover | 2.20 | 2.46 | 2 |
| Profitability Ratios | | | |
| Net Profit Margin | 3.33% | 10.28% | 1 |
| EBITDA Margin | 7.67% | 16.31% | 1 |
| Return on Assets (ROA) | 7.15% | 25.27% | 1 |
| Return on Equity (ROE) | 33.71% | -592.17% | 5 |
| Market Value Ratios | | | |
| Earnings per Share (EPS) | 4.20 | 10.06 | 2 |
| Price/Earnings (PE) Ratio | 22.02 | 18.24 | 3 |
| Market-to-Book (M/B) Ratio | 10.85 | -107.99 | 5 |
| Enterprise Value Multiple** | 10.00 | 13.50 | 2 |

The four comparables are (from FactSet): Best Buy Co., Inc. (BBY), Lowe's Companies Inc. (LOW), BMC Stock Holdings (BMCH), and Amacon.com Inc. (AMZN).

*One comparable had \$0 receivables and was ignored.

**Values from FactSet, May 2019.