Financial Statement Analysis and EPS Forecasting Report Assignment

First, choose a publicly traded company to analyze this semester. Choosing a US company which has been trading for more than 3 years will alleviate many issues (i.e. translating currencies).

Next, gather historic data on key financial statements of the firm from either SEC filings (http://www.sec.gov/edgar/searchedgar/webusers.htm), Yahoo Finance (http://finance.yahoo.com/) or the firm's own investor relations website. These include:

- Balance Sheet
- Income Statement
- Cash Flow Statement

Also collect necessary information like stock price, shares outstanding, dividends paid, etc.

Then prepare a professional report to answer the following questions:

1. Compute the following ratios for the firm that you are analyzing, for the most recent period:

I. Short-term solvency, or liquidity, ratios

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

$$\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liabilities}}$$

II. Long-term solvency, or financial leverage, ratios

$$\text{Total debt ratio} = \frac{\text{Total assets} - \text{Total equity}}{\text{Total assets}}$$

$$\text{Debt-equity ratio} = \text{Total debt/Total equity}$$

$$\text{Equity multiplier} = \text{Total assets/Total equity}$$

$$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

$$\text{Cash coverage ratio} = \frac{\text{EBIT} + \text{Depreciation}}{\text{Interest}}$$

III. Asset utilization, or turnover, ratios

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

$$\text{Days' sales in inventory} = \frac{365 \text{ days}}{\text{Inventory turnover}}$$

$$\text{Receivables turnover} = \frac{\text{Sales}}{\text{Accounts receivable}}$$

$$\text{Days' sales in receivables} = \frac{365 \text{ days}}{\text{Receivables turnover}}$$

$$\text{Total asset turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

$$\text{Capital intensity} = \frac{\text{Total assets}}{\text{Sales}}$$

IV. Profitability ratios

$$\text{Profit margin} = \frac{\text{Net income}}{\text{Sales}}$$

$$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Total equity}}$$

$$\text{ROE} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

V. Market value ratios

$$\text{Price-earnings ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$$

$$\text{Market-to-book ratio} = \frac{\text{Market value per share}}{\text{Book value per share}}$$

2. Comment on the financial condition of the firm in each of the above 5 categories in 2 or 3 sentences each. Use the ratios of your firm as evidence of your assertions by comparing it to some benchmark (historical ratios, competitors, market or industry average, etc.). If certain ratios are not applicable to your firm (if your firm doesn't have debt or inventory, for example), still write on these ratios and how the absence of these items affects the firm – both the costs and benefits.

3. Decompose the ROE of your firm using the extended Du-Pont Analysis.

$$\textbf{ROE} = \begin{matrix}\text{EBIT}\\\text{Margin}\end{matrix} \times \begin{matrix}\text{Interest}\\\text{Burden}\end{matrix} \times \begin{matrix}\text{Tax}\\\text{Burden}\end{matrix} \times \begin{matrix}\text{Asset}\\\text{Turnover}\end{matrix} \times \text{Leverage}$$

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4. Compare these components of ROE for the firm's current period its past periods to understand the time trends.

5. Compare these components of ROE for the firm's with its major competitor(s).

6. Now use the trends from questions 4 and 5 along with your own forecast of future macro-economic conditions to ***forecast the firm's Earnings per share and cash flow per share***. See the Sample Financial statement analysis in the course content for an example. To do this:

    a. First, make a *common sized* income statement for the last 3 to 5 years (every number as a percentage of revenue/sales).
    b. Next, measure the revenue growth for each year in the historical window.
    c. Forecast future revenue growth both quantitatively (for example, using a linear fit trend line/regression) and qualitatively.
    d. Produce forecasted income statements for future years using your revenue growth projections and common-sized balance sheets. Adjust items in income statement based on trends you see in past data, competitors, and the economy as a whole.

Your grade will be based on the following rubric:

Item	Weight
Question 1	18
Question 2	18
Question 3	9
Question 4	14
Question 5	13
Question 6	18
Overall Quality	10
Total	100