BA 528 Week 1 Notes

ROE - Return on Equity

$$\text{ROE} = \frac{\text{Net Income}}{\text{Average Shareholder Equity}}$$

Tells us how efficiently a company is using its shareholder' equity to generate profit. How much return is earned for every dollar of equity invested by shareholders. Although, it can also bet written as follows:

$$\text{ROE} = \left(\frac{\text{Net Income}}{\text{Net Sales}}\right) \times \left(\frac{\text{Net Sales}}{\text{Average Total Assets}}\right) \times \left(\frac{\text{Average Total Assets}}{\text{Average Shareholder Equity}}\right)$$

Or even further simplified to:

$$\text{ROE} = \text{Profit Margin (PM)} \times \text{Asset Turnover (AT)} \times \text{Financial Leverage (FL)}$$

Expanding this formula is referred to as **Dupont Disaggregation**. It provides insight into the driving factors behind the return on equity.

> - **PM**: Measures profitability — how much profit is earned from each dollar of sales
> - **AT**: Measures efficiency — how well assets are used to generate revenue.
> - **FL**: Measures capital structure — how much of the company's assets are financed by equity vs. debt.

ROA - Return on Asset

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Shareholder Assets}}$$

Or expanded via **Dupont Disaggregation** you'll find it's just $PM \times AT$ or full expanded to:

$$\text{ROE} = \left(\frac{\text{Net Income}}{\text{Net Sales}}\right) \times \left(\frac{\text{Net Sales}}{\text{Average Total Assets}}\right)$$