Chapter 2
Financial Statement and Ratio Analysis

3. Profitability Ratios

Selected Profitability Ratios Apple Inc. Year End Sept 29, 2012	
Gross Profit Margin	43.9%
Operating Profit Margin	35.3%
Net Profit Margin	26.7%
ROE	35.3%
ROA	23.7%

- The highest ROE was 39.9% in 1988, which was the Macintosh era.
- The lowest ROE was –87.1% in 1997, which was the year that Jobs was hired back as CEO.
- The gross margins in the Macintosh era (late 1980s) were more than 50%. This is higher than at any other point in Apple's history.
- In 2011 the gross margin was 40.5%, and in 2013 it was 37.6%, so the trend is decreasing.
- The main reason for declining margins is increased competition. For example, in September 2012 Apple released the iPhone 5 with a 4-inch diagonal screen, which was larger than the screen of the 4S (but smaller than the screen of the Samsung Galaxy SIII). The extra features of the iPhone 5 boosted its cost by approximately $19 more than the 4S model. Apple retailed the i5 for US$649, which was the same price as the 4S. A static price and rising cost of goods sold will reduce the gross margin.
- ROE rose dramatically after the introduction of the iPod in 2001 but was highest in the era after the introduction of the iPad (post 2010)
- Profitability declined in 2013 compared to 2012 and 2011, which is indicative of a declining trend. But this is the big unknown question for Apple and its investors. This is meant as an open-ended discussion question.

4. Liquidity Ratios

	Metro	Safeway
Current Ratio	0.99	1.45
Quick Ratio	0.34	1.09

- Safeway has larger current and quick ratios because of its larger cash reserves.

5. Activity Ratios

	Ford	Daimler Benz
Total Asset Turnover	**0.73**	**0.70**
Fixed Asset Turnover	**5.32**	**5.42**

	Metro	Safeway
Total Asset Turnover	**2.25**	**2.10**
Inventory Turnover	**11.82**	**12.75**

6. Financing Ratios

	Metro	Safeway
Debt Ratio	**45%**	**66%**
Times Interest Earned	**14.64**	**2.33**
Cash Flow to Debt	**40%**	**10%**
Asset Coverage Ratio	**2.76**	**3.23**

- Safeway has a higher debt ratio, so it has more debt relative to its total assets.
- Metro has a higher times-interest-earned ratio so it has greater capacity to pay its interest out of operating income (EBIT).
- Metro can repay 40% of its debt in the most recent year. If this recurs, then Metro could repay its debt 2.5 years, which is much quicker than Safeway.
- Safeway has $3.23 of collateral per dollar of debt, which is larger than Metro. Metro only has $3.76 of collateral per dollar of debt.

7. Du Pont Analysis

- The sum of the left-hand side of the balance sheet is equal to total assets
- Debt + Equity = right hand side of the balance sheet. This is equal to total assets.
- TA/E = 1 + D/E
- If leverage increases, then D/E increases, and given ROA, ROE will increase.
- NI/Sales = net profit margin
- S/TA = total asset turnover
- If total asset turnover increases, then ROA increases and so does ROE.
- If net profit margin decreases, then ROA decreases and so does ROE.
- ROA = (net profit margin) × (total asset turnover). Net profit margin measures profitability and total asset turnover measures asset utilization.

Selected Financial Ratios S&M Family Outlet Inc.		
ROE	**12.2%**	**14.1%**
(1 + D/E)	**$1.58**	**$2.89**
ROA	**7.7%**	**4.9%**
TAT	**$1.07**	**$0.78**
NPM	**7.2%**	**6.3%**
Inventory Turnover	**2.61**	**1.81**
Accounts Receivable Turnover	**25.88**	**11.02**

- Sales increased from Year 5 to Year 6.
- ROE increased from Year 5 to Year 6.
- ROA declined from Year 5 to Year 6.
- Inventory turnover declined from Year 5 to Year 6.
- Accounts Receivable turnover declined from Year 5 to Year 6.
- Both net profit margin and total asset turnover declined from Year 5 to Year 6. Both caused the decline in ROA.
- The debt ratio rose from 37% in Year 5 to 65% in Year 6. The (1 + D/E) ratio also rose from Year 5 to Year 6.
- Leverage increased dramatically from Year 5 to Year 6, which caused an increase in ROE despite a decrease in ROA.
- Goodwill increased from Year 5 to Year 6.
- S&M Family Outlet acquired another company in Year 6. This increased sales, total assets, liabilities, and leverage.
- More investigation is necessary to understand why asset utilization and profitability are reduced in Year 6. Are these short-term due to the challenges of integrating the acquired company or are these long-term weaknesses in the new company?