

Module 1

Framework for Analysis & Valuation

DISCUSSION QUESTIONS

Superscript ^A denotes assignments based on Appendix 1A.

- Q1-1.** Organizations undertake planning activities that shape three major activities: financing, investing, and operating. Financing is the means a company uses to pay for resources. Investing refers to the buying and selling of resources necessary to carry out the organization's plans. Operating activities are the actual carrying out of these plans. Planning is the glue that connects these activities, including the organization's ideas, goals and strategies. Financial accounting information provides valuable input into the planning process, and, subsequently, reports on the results of plans so that corrective action can be taken, if necessary.
- Q1-2.** An organization's financing activities (liabilities and equity = sources of funds) pay for investing activities (assets = uses of funds). An organization's assets cannot be more or less than its liabilities and equity combined. This means: $\text{assets} = \text{liabilities} + \text{equity}$. This relation is called the accounting equation (sometimes called the *balance sheet equation*), and it applies to all organizations at all times.
- Q1-3.** The four main financial statements are: income statement, balance sheet, statement of stockholders' equity, and statement of cash flows. The income statement provides information about the company's revenues, expenses and profitability over a period of time. The balance sheet lists the company's assets (what it owns), liabilities (what it owes), and stockholders' equity (the residual claims of its owners) as of a point in time. The statement of stockholders' equity reports on the changes to each stockholders' equity account during the period. The statement of cash flows identifies the sources (inflows) and uses (outflows) of cash, that is, where the company got its cash from and what it did with it. Together, the four statements provide a complete picture of the financial condition of the company.

- Q1-4.** The balance sheet provides information that helps users understand a company's resources (assets) and claims to those resources (liabilities and stockholders' equity) as of a given *point in time*.
- Q1-5.** The income statement covers a *period of time*. An income statement reports whether the business has earned a net income (also called profit or earnings) or incurred a net loss. Importantly, the income statement lists the types and amounts of revenues and expenses making up net income or net loss.
- Q1-6.** The statement of cash flows reports on the cash inflows and outflows relating to a company's operating, investing, and financing activities over a *period of time*. The sum of these three activities yields the net change in cash for the period. This statement is a useful complement to the income statement, which reports on revenues and expenses, but which conveys relatively little information about cash flows.
- Q1-7.** Retained earnings (reported on the balance sheet) is increased each period by any net income earned during the period (as reported in the income statement) and decreased each period by the payment of dividends (as reported in the statement of cash flows and the statement of stockholders' equity). Transactions reflected on the statement of cash flows link the previous period's balance sheet to the current period's balance sheet. The ending cash balance appears on both the balance sheet and the statement of cash flows.
- Q1-8.** External users and their uses of accounting information include: (a) lenders for measuring the risk and return of loans; (b) shareholders for assessing the return and risk in acquiring shares; and (c) analysts for assessing investment potential. Other users are auditors, consultants, officers, directors for overseeing management, employees for judging employment opportunities, regulators, unions, suppliers, and appraisers.
- Q1-9.** Managers deal with a variety of information about their employers and customers that is not generally available to the public. Ethical issues arise concerning the possibility that managers might personally benefit by using confidential information. There is also the possibility that their employers and/or customers might be harmed if certain information is not kept confidential.

- Q1-10.^A** Procter & Gamble's independent auditor is Deloitte & Touche LLP. The auditor expressly states that "our responsibility is to express an opinion on these financial statements based on our audits." The auditor also states that "these financial statements are the responsibility of the company's management." Thus, the auditor does not assume responsibility for the financial statements.
- Q1-11.** Financial accounting information is frequently used in order to evaluate management performance. The return on equity (ROE) and return on assets (ROA) provide useful measures of financial performance as they combine elements from both the income statement and the balance sheet. Financial accounting information is also frequently used to monitor compliance with external contract terms. Banks often set limits on such items as the amount of total liabilities in relation to stockholders' equity or the amount of dividends that a company may pay. Audited financial statements provide information that can be used to monitor compliance with these limits (often called *covenants*). Regulators and taxing authorities also utilize financial information to monitor items of interest.
- Q1-12.** Managers are vitally concerned about disclosing proprietary information that might benefit the company's competitors. Of most concern, is the "cost" of losing some competitive advantage. There traditionally has been tension between companies and the financial professionals (especially investment analysts) who press firms for more and more financial and nonfinancial information.
- Q1-13.** Net income is an important measure of financial performance. It indicates that the market values the company's products or services, that is, it is willing to pay a price for the products or services enough to cover the costs to bring them to market and to provide the company's investors with a profit. Net income does not tell the whole story, however. A company can always increase its net income with additional investment in something as simple as a bank savings account. A more meaningful measure of financial performance comes from measuring the level of net income relative to the investment made. One investment measure is the balance of stockholders' equity, and the comparison of net income to average stockholders' equity (ROE) is a fundamental measure of financial performance.
- Q1-14.** Borrowed money must be repaid, both the principal amount borrowed, as well as interest on the borrowed funds. These payments have contractual due dates. If payments are not prompt, creditors have powerful legal remedies, including forcing the company into bankruptcy. Consequently, when comparing two companies with the same return on equity, the one using less debt would generally be viewed as a safer (less risky) investment.

MINI EXERCISES

M1-15. (10 minutes)

(\$ millions)

Assets	=	Liabilities	+	Equity
\$47,540		<u>\$36,839</u>		\$10,701

Dell receives more of its financing from nonowners (\$36,839 million) than from owners (\$10,701 million). Its owner financing comprises 22.5% of its total financing (\$10,701 million / \$47,540 million). Thus, nonowners finance 77.5% of Dell's total assets.

M1-16. (10 minutes)

(\$ millions)

Assets	=	Liabilities	+	Equity
\$16,787		\$13,072		<u>\$3,715</u>

Best Buy receives more of its financing from nonowners (\$13,072 million) than from owners (\$3,715 million). Its owner financing comprises 22.1% of its total financing (\$3,715 million / \$16,787 million).

M1-17. (15 minutes)

(\$ millions)

	Assets	=	Liabilities	+	Equity
Hewlett-Packard	\$108,768		\$85,935		(a) <u>\$22,833</u>
General Mills	\$ 22,658		(b) <u>\$14,562</u>		\$ 8,096
Target	(c) <u>\$ 48,163</u>		\$31,605		\$16,558

The percent of owner financing for each company follows:

Hewlett-Packard.....	21.0%	(\$22,833 million / \$108,768 million)
General Mills	35.7%	(\$8,096 million / \$ 22,658 million)
Target.....	34.4%	(\$16,558 million / \$ 48,163 million)

General Mills and Target are more owner financed, while Hewlett-Packard (HP) is more nonowner financed. General Mills and Target are financed with roughly the same level of debt and equity, while HP's debt percentage is significantly higher than that of General Mills and Target. All three enjoy relatively stable cash flows and can, therefore, utilize a greater proportion of debt vs. equity. As the uncertainty of cash flows increases, companies generally substitute equity for debt in order to reduce the magnitude of contractual payment obligations.

M1-18.^A (15 minutes)

In its September 30, 2012 annual report, Starbucks reports the following figures (in \$ millions):

Assets	=	Liabilities	+	Equity
\$ 8,219.2	=	\$ 3,104.7	+	\$ 5,114.5

As shown, the accounting equation holds for Starbucks. Also, we can see that Starbucks' nonowner financing is 37.8% ($\$3,104.7 / \$8,219.2$) of its total financing.

M1-19.^A (20 minutes)

DuPONT	
Statement of Reinvested Earnings	
For Year Ended December 31, 2012	
Beginning reinvested earnings, December 31, 2011	\$ 13,422
Net income for 2012.....	2,788
Common stock dividends.....	(1,593)
Preferred stock dividends	(10)
Treasury stock retirement*.....	<u>(321)</u>
Ending reinvested earnings, December 31, 2012	<u>\$ 14,286</u>

* Treasury Stock represents the company's repurchase of Common Stock. The effect is to decrease stockholders' equity, which is the opposite effect from the issuance of stock. During 2012, DuPont retired Treasury Stock and will not reissue these shares again. This transaction reduced the company's retained earnings, but did not affect net income for the year.

M1-20. (20 minutes)

- | | |
|---------------|--------------------|
| a. BS and SCF | f. BS and SE |
| b. IS | g. SCF and SE |
| c. BS | h. SCF and SE |
| d. BS and SE | i. IS, SE, and SCF |
| e. SCF | |

M1-21. (10 minutes)

There are many stakeholders impacted by this business decision, including the following (along with a description of how):

- You as a Manager—your reputation, self-esteem, and potentially your livelihood could be negatively impacted.
- Creditors and Bondholders—credit decisions based on inaccurate information could occur.
- Shareholders—buying or selling shares based on inaccurate information could occur.
- Management and other Employees of your company—repercussions of your decision extend to all other employees. Also, a decision to record these revenues suggests an environment condoning dishonesty.

Indeed, your decisions can affect many more parties than you might initially realize. The short-term benefit of meeting Wall Street's expectations could have serious long-term ramifications.

EXERCISES

E1-22. (15 minutes)

- Target's inventories consist of the product lines it carries: clothing, electronics, home furnishings, food products, and so forth.
- Target's Property and Equipment assets consist of land, buildings, store improvements such as lighting, flooring, HVAC, store shelving, shopping carts, and cash registers.
- Although Target sells some of its merchandise via its Website, the majority of its sales activity is conducted in its retail locations. These stores represent a substantial and necessary capital investment for its business model.

E1-23. (20 minutes)

(\$ millions)

- Using the accounting equation:

$$\text{Assets } (\$84,351) = \text{Liabilities } (\$33,148) + \text{Equity } (?)$$

$$\text{Thus: } \underline{\$51,203} = \text{Equity}$$

High-tech companies must contend with a substantial amount of risk relating to changing technology. Future cash flows are, therefore, not as certain and cannot support high levels of debt. Thus, the company uses equity financing; 60.7% in the case of Intel.

- Using the accounting equation at the *beginning* of the year:

$$\text{Assets } (\$7,071) = \text{Liabilities } (?) + \text{Equity } (\$1,757)$$

$$\text{Thus: } \text{Beginning Liabilities} = \$5,314$$

Using the accounting equation at the *end* of the year:

$$\text{Assets } (\$7,071 - \$1) = \text{Liabilities } (\$5,314 - \$132) + \text{Equity } (?)$$

$$\text{Thus: } \text{Ending Equity} = \underline{\$1,888}$$

Alternative approach to solving part (b):

$$\Delta \text{Assets} (\$-1) = \Delta \text{Liabilities} (\$-132) + \Delta \text{Equity} (?)$$

where "Δ" refers to "change in."

$$\text{Thus: } \Delta \text{Ending Equity} = \$-1 - \$-132 = \$131 \text{ and}$$

$$\text{Ending equity} = \$1,757 + \$131 = \$1,888$$

- Retained Earnings is the balance sheet account that provides the link between the balance sheet and the income statement. Each accounting period, Retained Earnings is updated by the net income (loss) reported for that period (and is reduced by any dividends that are declared to shareholders). The balance sheet and the income statement are, therefore, linked by this balance sheet account.

E1-24. (15 minutes)

External constituents use accounting information from financial statements to answer questions such as the following:

1. *Shareholders* (investors), ask questions such as:
 - a. Are the company's resources adequate to carry out strategic plans?
 - b. Are the company's debts appropriate in amount given the company's existing assets and plans for growth?
 - c. What is the current level of income (and what are its components)?
 - d. Is the current stock price indicative of the company's profitability and level of debt?
2. *Creditors*, ask questions such as:
 - a. Does the business have the ability to repay its debts as they come due?
 - b. Can the business take on additional debt?
 - c. Are current assets sufficient to cover current liabilities?
3. *Employees*, ask questions such as:
 - a. Is the business financially stable?
 - b. Can the business afford to pay higher salaries?
 - c. What are growth prospects for the organization?
 - d. Will the company be able to pay my pension when I retire?

E1-25. (10 minutes)

Computation of dividends

Beginning retained earnings, 2012	\$ 15,649
+ Net income	2,472
– Cash dividends	<u> (?)</u>
= Ending retained earnings, 2012	<u>\$ 16,953</u>

Thus, dividends were \$1,168 million for 2012. The company paid out dividends equal to 47.2% of 2012 net income (\$1,168 / \$2,472).

E1-26. (20 minutes)

- a. Colgate-Palmolive was profitable during 2012 as evidenced by its positive net profit margin of 14%. However, the profit margin is lower than in 2011.
- b. Colgate-Palmolive's productivity measure (asset turnover) decreased slightly from 1.4 in 2011 to 1.3 in 2012. This indicates that operating assets are generating a slightly lower level of sales than in the prior year. This is a negative development.
- c. $\text{ROA} = \text{Profit margin} \times \text{asset turnover}$.
2012 ROA = $14\% \times 1.3 = \underline{18.2\%}$.
2011 ROA = $15\% \times 1.4 = \underline{21.0\%}$.

The decrease in ROA during 2012 results from a decrease in both profitability and productivity.

E1-27. (15 minutes)

$$\begin{aligned} \text{Return on assets (ROA)} &= \text{Net income} / \text{Average assets} \\ &= \$735 / (\$8,491 + \$8,089) / 2] \\ &= \underline{8.9\%} \end{aligned}$$

E1-28. (20 minutes)

- a. Creditors are an important group of external stakeholders. They are primarily interested in the ability of the company to generate sufficient cash flow in order to repay the amounts owed. Stockholders are another significant stakeholder in the company. They are primarily interested in the company's ability to effectively raise capital and to invest that capital in projects with a rate of return in excess of the cost of the capital raised, that is, to increase the value of the firm. Regulators such as the SEC and the tax authorities, including the IRS and state and local tax officials, are important constituents that are interested in knowing whether the company is complying with all applicable laws and regulations.
- b. Generally Accepted Accounting Principles (GAAP) are the various methods, rules, practices, and other procedures that have evolved over time in response to the need to regulate the preparation of financial statements. They are primarily set by the Financial Accounting Standards Board (FASB), a private sector entity with representatives from companies that issue financial statements, accounting firms that audit those statements, and users of financial information. Other bodies that contribute to GAAP are the AICPA, the EITF, and the SEC.
- c. Financial information provides users with information that is useful in assessing the financial performance of companies and, therefore, in setting stock and bond prices. To the extent that these prices are accurate, the costs of the funds that companies raise will accurately reflect their relative efficiency and risk of operations. Companies that can utilize capital more effectively will be able to obtain that capital at a reasonable cost and society's financial resources will be effectively allocated.

Continued next page

E1-28. concluded

- d. First, the preparation of financial statements involves an understanding of complex accounting rules and significant assumptions and considerable estimation. Second, GAAP allows for differing accounting treatments for the same transaction. And third, auditors are at a relative information disadvantage vis-à-vis company accountants. As the capital markets place increasing pressures on companies to perform, accountants are often placed in a difficult ethical position to use the flexibility given to them under GAAP in order to bias the financial results or to use their inside information to their advantage.

E1-29. (20 minutes)

- a. $ROE = \text{Net income} / \text{Average stockholders' equity}$
 $= \$1,383.8 \text{ million} / [(\$4,387.3 \text{ million} + \$5,114.5 \text{ million}) / 2] = 29.1\%$
- b. The repurchase of common stock reduces the denominator (average stockholders' equity). The outflow of cash for the repurchase, however, reduces net income by the return on the cash that is forgone. Generally, the reduction in the denominator is greater than that for the numerator, and consequently ROE increases. That is one of the reasons cited for share repurchases.
- c. Companies usually repurchase their own stock when they feel that it is undervalued by the market. The repurchase is a way to send a signal to the market to that effect. Company management is, in essence, backing up its assertions that the stock is undervalued with a tangible investment of the company's funds. Companies also repurchase their own stock to have shares available to give to executives and other employees as compensation.

PROBLEMS

P1-30. (40 minutes)

- a. 2013 ROE = $\$16,999 / [(\$81,738 + \$75,761)/2] = \underline{21.6\%}$
 2012 ROE = $\$15,699 / [(\$75,761 + \$71,247)/2] = \underline{21.4\%}$

Wal-Mart's ROE increased slightly from 2012 to 2013, and is slightly above the median ROE of 21.5 for other companies in the Dow Jones average.

- b. 2013 ROA = $\$16,999 / [(\$203,105 + \$193,406)/2] = \underline{8.6\%}$
 2012 ROA = $\$15,699 / [(\$193,406 + \$180,782)/2] = \underline{8.4\%}$

Wal-Mart's ROA increased slightly from 2012 to 2013 and is above the median 6.7% for other Dow Jones companies.

- c. Wal-Mart does not sell products with a high level of technology and specialization, and it, therefore, is not protected by patents or other legal barriers to entry. It does, however, have considerable market power over suppliers as a result of its considerable size, which may result in product cost savings. Wal-Mart is also able to use its considerable advertising budget to its advantage.

P1-31. (30 minutes)

a.

GENERAL MILLS, INC. Income Statement (\$ millions) For Year Ended May 26, 2013	
Revenue.....	\$17,774.1
Cost of goods sold.....	11,350.2
Gross profit.....	6,423.9
Total expenses.....	4,568.7
Net income.....	<u>\$ 1,855.2</u>

GENERAL MILLS, INC. Balance Sheet (\$ millions) May 26, 2013			
Cash.....	\$741.4	Total liabilities.....	\$14,562.0
Noncash assets.....	21,916.6	Stockholders' equity.....	8,096.0
Total assets.....	<u>\$22,658.0</u>	Total liabilities and equity.....	<u>\$22,658.0</u>

Continued next page

P1-31. concluded

GENERAL MILLS, INC. Statement of Cash Flows (\$ millions) For Year Ended May 26, 2013	
Cash from operating activities	\$2,926.0
Cash from investing activities	(1,515.4)
Cash from financing activities	<u>(1,140.4)</u>
Net change in cash	270.2
Cash, beginning of year	<u>471.2</u>
Cash, ending year	<u>\$ 741.4</u>

b. A negative amount for cash from investing activities reflects additional investment by the company in its long-term assets, which is generally a positive sign of management's commitment to future business success. A negative amount for cash from financing activities reflects the reduction of long-term debt, which is often a positive sign of the company's ability to retire debt obligations.

c. Profit margin = \$1,855.2 / \$ 17,774.1 = 10.44%

Asset turnover = \$ 17,774.1 / \$ 22,658.0 = 0.784

Return on assets = \$1,855.2 / \$ 22,658.0 = 8.2% (10.44% × 0.784)

Return on equity = \$1,855.2 / \$ 8,096.0 = 22.9%

P1-32. (30 minutes)

a.

ABERCROMBIE & FITCH Income Statement (\$ millions) For Year Ended February 2, 2013	
Revenue	\$ 4,511
Cost of goods sold	<u>1,694</u>
Gross profit	2,817
Expenses	<u>2,580</u>
Net income	<u>\$ 237</u>

ABERCROMBIE & FITCH Balance Sheet (\$ millions) February 2, 2013			
Cash	\$ 644	Total liabilities	\$ 1,169
Noncash assets	<u>2,343</u>	Stockholders' equity	<u>1,818</u>
Total assets	<u>\$ 2,987</u>	Total liabilities and equity	<u>\$ 2,987</u>

Continued next page

P1-32. concluded

ABERCROMBIE & FITCH Statement of Cash Flows (\$ millions) For Year Ended February 2, 2013	
Cash from operating activities.....	\$ 684
Cash from investing activities.....	(247)
Cash from financing activities.....	<u>(377)</u>
Net change in cash.....	60
Cash, beginning year.....	<u>584</u>
Cash, ending year.....	<u>\$ 644</u>

- b. A negative amount for cash from investing activities reflects further investment by the company in its long-term assets, which is generally a positive sign of management commitment to future business success. A negative amount for cash from financing activities reflects the reduction of long-term debt, which is often a positive sign of the company's ability to retire debt obligations.
- c. i. Profit margin = $\$237 / \$4,511 = 5.25\%$
- ii. Asset turnover = $\$4,511 / \$2,987 = 1.51$
- iii. Return on assets = $\$237 / \$2,987 = 7.93\%$ ($5.25\% \times 1.51$)
- iv. Return on equity = $\$237 / \$1,818 = 13.04\%$

P1-33. (30 minutes)

a.

CISCO SYSTEMS, INC. Income Statement (\$ millions) For Year Ended July 27, 2013	
Sales	\$48,607
Cost of goods sold	<u>19,167</u>
Gross profit.....	29,440
Expenses	<u>19,457</u>
Net income	<u>\$ 9,983</u>

CISCO SYSTEMS, INC. Balance Sheet (\$ millions) July 27, 2013			
Cash	\$ 7,925	Total liabilities	\$ 42,063
Noncash assets.....	<u>93,266</u>	Stockholders' equity	<u>59,128</u>
Total assets.....	<u>\$101,191</u>	Total liabilities and equity	<u>\$101,191</u>

Continued next page

P1-33. concluded

CISCO SYSTEMS, INC. Statement of Cash Flows (\$ millions) For Year Ended July 27, 2013	
Cash from operating activities.....	\$ 12,894
Cash from investing activities.....	(11,768)
Cash from financing activities.....	(3,000)
Net change in cash.....	(1,874)
Cash, beginning year.....	9,799
Cash, ending year.....	<u>\$ 7,925</u>

- b. A negative amount for cash from investing activities reflects further investment by the company in its long-term assets, which is generally a positive sign of management commitment to future business success. A negative amount for cash from financing activities reflects the reduction of long-term debt, which is often a positive sign of the company's ability to retire debt obligations.
- c. i. Profit margin = $\$9,983 / \$48,607 = 20.54\%$
- ii. Asset turnover = $\$ 48,607 / \$101,191 = 0.48$
- iii. Return on assets = $\$9,983 / \$101,191 = 9.87\%$ ($20.54\% \times 0.48$)
- iv. Return on equity = $\$9,983 / \$59,128 = 16.9\%$

P1-34. (15 minutes)

CROCKER CORPORATION Statement of Stockholders' Equity For Year Ended December 31, 2013			
	Contributed Capital	Retained Earnings	Stockholders' Equity
December 31, 2012.....	\$120,000	\$ 30,000	\$150,000
Issuance of common stock.....	30,000		30,000
Net income.....		50,000	50,000
Cash dividends.....		(25,000)	(25,000)
December 31, 2013.....	<u>\$150,000</u>	<u>\$ 55,000</u>	<u>\$205,000</u>

P1-35. (15 minutes)

GAP, INC.					
Statement of Stockholders' Equity					
For Year Ended February 2, 2013					
	Common Stock and APIC	Treasury Stock	Retained Earnings	Accum. Other Comp. Income	Stockholders' Equity
February 1, 2012.....	\$2,916	\$(12,760)	\$12,364	\$229	\$2,749
Sale of stock.....	3				3
Purchase of stock.....		(705)			(705)
Net income			1,135		1,135
Other comp. income (loss).....				(48)	(48)
Cash dividends.....			(240)		(240)
February 2, 2013.....	<u>\$2,919</u>	<u>\$(13,465)</u>	<u>\$13,259</u>	<u>\$181</u>	<u>\$2,894</u>

P1-36. (30 minutes)

(\$ millions)

a.

	ROA	ROE
2011	8.1%	28.5%
	$\$1,591/[(\$19,373+\$19,864)/2]$	$\$1,591/[(\$5,249+\$5,917)/2]$
2012	8.9%	34.2%
	$\$1,750/[(\$19,873+\$19,373)/2]$	$\$1,750/[(\$4,985+\$5,249)/2]$

	Profit Margin (PM)	Asset Turnover (AT)
2011	7.6%	1.06
	$(\$1,591/\$20,846)$	$\$20,846/[(\$19,373+\$19,864)/2]$
2012	8.3%	1.07
	$(\$1,750/\$21,063)$	$\$21,063/[(\$19,873+\$19,373)/2]$

Kimberly-Clark's ROA and ROE both improved from 2011 to 2012.

- b. The improvement in ROA is a result of an improvement in profit margin (from 7.6% to 8.3%) as well as a slight improvement in asset turnover (from 1.06 to 1.07). The profit margin improvement was the more significant cause.
- c. The repurchase of common stock reduces both the numerator (net income) and denominator (stockholders' equity) of the return on equity calculation. Repurchases reduce net income by the forgone profit on the cash that is used to buy the stock on the open market. Kimberly-Clark's repurchase of common stock reduced stockholders' equity by almost \$4.9 billion, thus decreasing the denominator by that amount. Generally, the denominator effect dominates: its reduction is greater than the reduction of the numerator. Therefore, it is reasonable to predict that the repurchase would increase ROE.

P1-37. (30 minutes)

a.

	ROA	ROE
2012	8.6% \$683/[((\$8,491+\$7,462)/2)]	34.3% \$683/[((\$1,956+\$2,021)/2)]
2013	8.9% \$735/[((\$8,089+\$8,491)/2)]	38.0% \$735/[((\$1,913+\$1,956)/2)]

	Profit Margin (PM)	Asset Turnover (AT)
2012	6.5% (\$683/\$10,497)	1.32 \$10,497/[((\$8,491+\$7,462)/2)]
2013	6.2% (\$735/\$11,762)	1.42 \$11,762/[((\$8,089+\$8,491)/2)]

- b. Both ROA and ROE increased from 2012 to 2013. The increase in ROA is driven primarily by the increase in asset turnover (from 1.32 to 1.42), as profit margin declined slightly during the year (from 6.5% to 6.2%).

P1-38. (20 minutes)

- a. Return on equity is net income divided by average total stockholders' equity.

$$\text{Canadian Tire's ROE} = \$499.2 / [(\$4,409.0 + \$4,763.6) / 2] = 10.9\%$$

- b. We know that sales minus expenses equals net income. Using Canadian Tire's numbers we obtain:

$$\begin{aligned} \$11,427.2 - \text{Expenses} &= \$499.2 \\ \text{therefore Expenses} &= \underline{\underline{\$10,928}} \end{aligned}$$

- c. Companies repurchase their own stock for a number of reasons. First, managers may believe that the company's stock is undervalued by the market. The repurchase is a way to signal the market to that effect. Essentially, company management is backing up its assertions that the stock is undervalued with a tangible investment of the company's funds. Second, firms often use treasury shares to honor executive and other employees' stock option exercises. Third, stock buybacks return cash to investors who may prefer capital gains (from a buyback) to ordinary dividends, for tax reasons.

P1-39. (20 minutes)

a. ROA = Net income / Average assets

$$\text{TJX 2013 ROA} = \$1,907 / [(\$9,512 + \$8,282) / 2] = 21.4\%$$

$$\text{ANF 2013 ROA} = \$237 / [(\$2,987 + \$3,117) / 2] = 7.8\%$$

b.

	TJX	ANF
Profit Margin	$\$1,907 / \$25,878 = 7.4\%$	$\$237 / \$4,511 = 5.3\%$
Asset Turnover	$\$25,878 / [(\$9,512 + \$8,282) / 2] = 2.91$	$\$4,511 / [(\$2,987 + \$3,117) / 2] = 1.48$
ROA	$7.4\% \times 2.91 = 21.5\%^*$	$5.3\% \times 1.48 = 7.8\%$

* Rounding difference

c. TJX is outperforming ANF in 2013. ANF's reputation as a high-end retailer would lead us to expect higher profit margins. But, this is not the case as TJX's profit margin is almost 40% higher than ANF's. TJX's real competitive advantage, however, is in its asset turnover of nearly 3x, almost double that of ANF's 1.48. In 2013, TJX is outperforming ANF on both dimensions, resulting in a ROA of 21.4%, over 2.7x higher than ANF's ROA of 7.8%.

P1-40. (30 minutes)

a.

	2012	2011
ROA	$\$5,464.8 / [(\$35,386.5 + \$32,989.9) / 2] = 16.0\%$	$\$5,503.1 / [(\$32,989.9 + \$31,975.2) / 2] = 16.9\%$
Profit Margin	$\$5,464.8 / \$27,567.0 = 19.8\%$	$\$5,503.1 / \$27,006.0 = 20.4\%$
Asset Turnover	$\$27,567.0 / [(\$35,386.5 + \$32,989.9) / 2] = 0.81$	$\$27,006.0 / [(\$32,989.9 + \$31,975.2) / 2] = 0.83$

b. McDonald's ROA decreased from 2011 to 2012, due to a decrease in profitability (from 20.4% to 19.8%) and a decrease in asset turnover (from 0.83 to 0.81) during this period.

P1-41. (30 minutes)

a.

	Profit Margin	Asset Turnover	ROA
2010	\$4,085 / 26,662 = 15.3%	\$26,662/[(\\$30,156+\\$27,250)/2] = 0.93	15.3% × 0.93 = 14.2%
2011	\$4,283 / \\$29,611 = 14.5%	\$29,611/[(\\$31,616+\\$30,156)/2] = 0.96	14.5% × 0.96 = 13.9%
2012	\$4,444 / \\$29,904 = 14.9%	\$29,904/[(\\$33,876+\\$31,616)/2] = 0.91	14.9% × 0.91 = 13.6%

3M's ROA dipped steadily from 2010 to 2012, possibly still feeling the effects of the recession of 2008-2009.

- b. The primary driver of the ROA dip in 2011 was a decrease in the profit margin from 15.3% to 14.5%. Asset turnover that year, increased slightly: 0.93 to 0.96, but not enough to offset the effects of the profit margin decline. The primary driver of the ROA dip in 2012 was a decrease in the asset turnover from 0.96 to 0.91. The 0.4% increase in the profit margin during that period was not enough to offset the effect of the asset turnover decline. This fluctuation in asset turnover is attributable to the fluctuating economic recovery. Although some assets are more variable in nature (i.e., receivables and inventories), 3M is capital intensive and cannot reduce its long-term assets in the short run. As a result, asset turnover declines as sales decline during a recession and increases as sales improve during the recovery.

P1-42. (20 minutes)

- a. Timothy D. Cook made assertions that the Sarbanes-Oxley Act requires all CEOs and CFOs to make. In particular, Cook certified that:
- He has read the financial reports.
 - The financial reports do not contain any significant (material) misstatement or omit to state a significant fact that should have been included. The financial reports are, therefore, complete.
 - The financial reports fairly present the financial condition of the company.
 - The company maintains a system of internal controls and those controls are functioning correctly.
- b. Congress passed the Sarbanes-Oxley Act following a spate of corporate accounting scandals in the early 2000s. The impetus for the legislation was the belief that some CEOs and CFOs no longer assumed responsibility for the financial reporting of their companies. By requiring these high-ranking executives to personally certify to the items referenced in part a above, Congress wanted to encourage closer scrutiny of the financial reporting process at the highest levels of the company.

Continued next page

P1-42. concluded

- c. The Sarbanes-Oxley Act prescribes significant penalties for falsely certifying to the completeness and correctness of the financial reports. CEOs and CFOs face fines of up to \$5 million and prison terms of up to 20 years. Additionally, should the company later restate its financial statements as a result of wrongful false reporting, the CEOs and CFOs may be required to forfeit any profits earned as a result of that reporting. This forfeiture has been labeled "disgorgement" in the financial press.

P1-43. (30 minutes)

Following is part of the statement of corporate governance from GE's site:

Governance Principles

The following principles have been approved by the board of directors and, along with the charters and key practices of the board committees, provide the framework for the governance of GE. The board recognizes that there is an ongoing and energetic debate about corporate governance, and it will review these principles and other aspects of GE governance annually or more often if deemed necessary.

1. Role of Board and Management

GE's business is conducted by its employees, managers and officers, under the direction of the chief executive officer (CEO) and the oversight of the board, to enhance the long-term value of the Company for its shareowners. The board of directors is elected by the shareowners to oversee management and to assure that the long-term interests of the shareowners are being served. Both the board of directors and management recognize that the long-term interests of shareowners are advanced by responsibly addressing the concerns of other stakeholders and interested parties including employees, recruits, customers, suppliers, GE communities, government officials and the public at large.

2. Functions of Board

The board of directors has eight scheduled meetings a year at which it reviews and discusses the performance of the Company, its plans and prospects, as well as immediate issues facing the Company. Directors are expected to attend all scheduled board and committee meetings. In addition to its general oversight of management, the board also performs a number of specific functions, including:

- a. selecting, evaluating and compensating the CEO and overseeing CEO succession planning;
- b. providing counsel and oversight on the selection, evaluation, development and compensation of senior management;
- c. reviewing, monitoring and, where appropriate, approving fundamental financial and business strategies and major corporate actions;
- d. assessing major risks facing the Company -- and reviewing options for their mitigation; and
- e. ensuring processes are in place for maintaining the integrity of the Company - the integrity of the financial statements, the integrity of compliance with law and ethics, the integrity of relationships with customers and suppliers, and the integrity of relationships with other stakeholders.

3. Qualifications

Directors should possess the highest personal and professional ethics, integrity and values, and be committed to representing the long-term interests of the shareowners. They must also have an inquisitive and objective perspective, practical wisdom and mature judgment. We endeavor to have a board representing a range of experience at policy-making levels in business, government, education and technology, and in areas that are relevant to the Company's global activities.

Directors must be willing to devote sufficient time to carrying out their duties and responsibilities effectively, and should be committed to serve on the board for an extended period of time.

Directors who also serve as CEOs or in equivalent positions should not serve on more than two boards of public companies in addition to the GE board, and other directors should not serve on more than four other boards of public companies in addition to the GE board. Positions held as of November 2002 in excess of these limits may be maintained unless the board determines that doing so would impair the director's service on the GE board.

Continued next page

P1-43. concluded

When a director's principal occupation or job responsibilities change significantly during his or her tenure as a director, that director shall tender his or her resignation for consideration by the nominating, corporate governance and public responsibilities committee. The nominating, corporate governance and public responsibilities committee will recommend to the board the action, if any, to be taken with respect to the resignation. The board does not believe that arbitrary term limits on directors' service are appropriate, nor does it believe that directors should expect to be renominated annually until they reach the mandatory retirement age. The board self-evaluation process described below will be an important determinant for board tenure. Directors will not be nominated for election to the board after their 75th birthday, although the full board may nominate candidates over 75 in special circumstances.

4. Independence of Directors

A majority of the directors will be independent directors, as independence is determined by the board, based on the guidelines set forth below.

All future non-management directors will be independent. GE seeks to have a minimum of ten independent directors at all times, as independence is determined by the board based on the guidelines set forth below, and it is the board's goal that at least two-thirds of the directors will be independent. Directors who do not satisfy GE's independence guidelines also make valuable contributions to the board and to the Company by reason of their experience and wisdom. For a director to be considered independent, the board must determine that the director does not have any direct or indirect material relationship with GE. The board has established guidelines to assist it in determining director independence, which conform to, or are more exacting than, the independence requirements in the New York Stock Exchange listing requirements (NYSE rules). In addition to applying these guidelines, the board will consider all relevant facts and circumstances in making an independence determination.

The board will make and publicly disclose its independence determination for each director when the director is first elected to the board and annually thereafter for all nominees for election as directors. If the board determines that a director who satisfies the NYSE rules is independent even though he or she does not satisfy all of GE's independence guidelines, this determination will be disclosed and explained in the next proxy statement.

In accordance with NYSE rules, independence determinations under the guidelines in section (a) below will be based upon a director's relationships with GE during the 36 months preceding the determination. Similarly, independence determinations under the guidelines in section (b) below will be based upon the extent of commercial relationships during the three completed fiscal years preceding the determination.

© copyright 2013 General Electric Company governance principles

- a. The cornerstone of GE's governance structure is its reliance on an independent and qualified Board of Directors. Independence means that insiders are not involved in oversight of the company's managers. This helps avoid potential conflicts of interest. "Highly qualified" directors ensure that those responsible for oversight have the knowledge to perform their duties and the conviction to ask probing questions.
- b. Governance structures serve shareholders (and indirectly, public interest). The shareholders of GE hope to ensure that the company's policies are adhered to and that the interests of shareholders are given paramount consideration in the management of the business.

IFRS APPLICATIONS

I 1-44. (20 minutes)

(Currency in millions)	Assets	=	Liabilities	+	Equity
OMV Group	€ 13,888		€ 6,034		(a) € 7,854
Ericsson	SEK 274,996		(b) <u>SEK 136,513</u>		SEK 138,483
BAE Systems	(c) <u>£22,274</u>		£18,500		£3,774

The percent of owner financing for each company follows: (all currency in millions)

OMV Group.....	56.6%	(€7,854 / €13,888)
Ericsson	50.4%	(SEK 138,483 / SEK 274,996)
BAE Systems	16.9%	(£3,774 / £22,274)

Both Ericsson and OMV Group have more than half of their financing from owners. BAE Systems is more nonowner-financed. High-tech companies, such as Ericsson, face more uncertain cash flows than do capital intensive companies such as BAE Systems. Because nonowner financing is riskier, companies like Ericsson (that face greater uncertainty) tend to utilize more equity in their capital structure. OMV group is a mature cash-generating company and, as such, has repaid its debt, which is now less than the company's equity.

I 1-45. (25 minutes)

- a. 2011 ROE = $\$9,470 / [(\$23,472 + \$23,410)/2] = 40.4\%$
 2012 ROE = $\$6,405 / [(\$23,952 + \$23,472)/2] = 27.0\%$

AstraZeneca's ROE has decreased from 2011 to 2012, but is well above the median ROE of 21.5% for companies in the Dow Jones average. The company is exceedingly profitable in both years.

- b. 2011 ROA = $\$9,470 / [(\$52,830 + \$56,127)/2] = 17.4\%$
 2012 ROA = $\$6,405 / [(\$53,534 + \$52,830)/2] = 12.0\%$

AstraZeneca's ROA decreased from 2011 to 2012 but it too is well above the median of 6.7% for Dow Jones companies (on average) for both years. On this dimension, the company is very profitable.

- c. AstraZeneca sells products that have a high level of technology and specialization. Some of the company's compounds are patented. Companies that are able to achieve a competitive advantage with unique products and services typically enjoy above-level profitability and returns on equity. Further, to the extent that the company is able to develop customer-specific products and services, competitive threats lessen and, thus, further increase its profitability.

I 1-46. (25 minutes)

a. 2012 ROA = $\text{£}2,814 / [(\text{£}12,863 + \text{£}12,039)/2] = 22.60\%$
2013 ROA = $\text{£}120 / [(\text{£}13,096 + \text{£}12,863)/2] = 0.92\%$

b. 2012 Profit Margin = $\text{£}2,814 / \text{£}63,916 = 4.40\%$
2013 Profit Margin = $\text{£}120 / \text{£}64,826 = 0.19\%$

2012 Asset Turnover = $\text{£}63,916 / [(\text{£}12,863 + \text{£}12,039)/2] = 5.13$
2013 Asset Turnover = $\text{£}64,826 / [(\text{£}13,096 + \text{£}12,863)/2] = 4.99$

- c. Over this period, Tesco's ROA decreased dramatically from 22.60% to 0.92%. This decrease is due to two factors: i) profitability decreased from 4.40% to 0.19% and ii) asset turnover decreased from 5.13 to 4.99. We would conclude that the company is less profitable on every sale and has reduced asset efficiency during 2013 compared to 2012. But of the two effects, the profitability effect is the more significant.

DISCUSSION POINTS

D1-47. (30 minutes)

Financing can come from a number of sources, including operating creditors, borrowed funds, and the sale of stock. Each has its strengths and weaknesses.

1. Operating creditors – operating creditors are merchandise and service suppliers, including employees. Generally, these liabilities are non-interest bearing. As a result, companies typically use this source of credit to the fullest extent possible, often stretching payment times. However, abuse of operating creditors has a significant downside. The company may be unable to supply its operating needs and the damage to employee morale might have significant repercussions. Operating credit must, therefore, be used with care.
2. Borrowed funds – borrowed money typically carries an interest rate. Because interest expense is deductible for tax purposes, borrowed funds reduce income tax expense. The taxes saved are called the “tax shield.” The deductibility of interest reduces the effective cost of borrowing. The downside of debt is that the company *must* make principal and interest payments as scheduled. Failure to make payments on time can result in severe consequences – creditors have significant legal remedies, including forcing the company into bankruptcy and requiring its liquidation. The lower cost of debt must be balanced against the fixed payment obligations.
3. Sale of stock – companies can sell various classes of stock to investors. Some classes of stock have mandatory dividend payments. On other classes of stock, dividends are not a legal requirement until declared by the board of directors. Consequently, unlike debt payments, some dividends can be curtailed in business downturns. The downside of stock issuance is its cost. Because equity is the most expensive source of capital, companies use it sparingly.

D1-48. (30 minutes)

Each of the three primary financial statements provides a different perspective on the company’s financial performance and condition.

1. Income statement. The income statement provides information on the company’s sales, expenses, and net income or loss. Profitability indicates that the company’s goods or services are valued by the market, that is, customers are willing to pay a price that is sufficient to cover the costs of providing those goods and/or services together with an adequate return on invested capital. Further, the income statement is prepared on an accrual basis, where revenues are recognized when “earned” and expenses when “incurred.” Accountants do not wait for cash to be received or paid to record revenues and expenses. Consequently, management is able to communicate some of its private information about expected cash inflows or outflows through its recording of revenues and expenses. Presumably this information is valuable to financial statement readers because the income statement provides information about the economic profit of the company.

Continued next page

D1-48. concluded

2. Balance sheet. The balance sheet reports the resources available to the company and how the company obtained those resources (the sources). The balance sheet also reveals asset categories (providing insight into management's investment philosophy) and the manner in which management has financed its operations (the relative use of debt versus equity). Efficient management of the balance sheet is critical to financial performance and careful analysis of the balance sheet can provide clues into the effectiveness of the company's management team and the viability of the company within the context of its industry.
3. Statement of cash flows. Cash is important to a company's continued operations. Debts must be paid in cash and employees typically only accept cash in payment of their services. Companies must generate positive cash flow over the long run in order to survive. The income statement, prepared on an accrual basis, does not directly provide information about cash flows. But the statement of cash flows does, and, for that reason, it is a critical financial statement. The statement of cash flows tells us the sources of cash and how cash has been used. In particular, the statement reports operating, investing and financing cash flows. From the statement we can infer whether the company's sources of cash are long-term or transitory. This is important to forecasting future cash flows. In addition, the uses of cash provide insight into management's investment philosophy, which can be a valuable input into our evaluation of management and valuation of the company.

D1-49. (30 minutes)

Transparency is the degree to which the financial statements accurately and completely portray the financial condition of the company and the results of its operating activities. Transparent financial statements are timely and provide all the information required to effectively evaluate the financial performance of the company. Accuracy, timeliness, and completeness are important to financial statement readers who seek financial information that is relevant and reliable. Transparency became a central issue in financial reporting following the accounting scandals of the early 2000s, when analysts believed too many financial statements lacked transparency.

Balancing companies' desire to issue transparent financial statements is their need to protect proprietary information. Markets are very competitive, and the information disclosed to investors and creditors is also disclosed to the company's competitors. Most critical is information relating to the company's strategic direction. Even historical information, however, provides insight into the relative profitability of the company's operating units that can be effectively utilized by future competitors.

There has traditionally been tension between companies and the financial professionals (especially investment analysts) who press firms for more and more financial and nonfinancial information.

D1-50. (30 minutes)

Accounting measures other than net income have become commonplace in corporate press releases. By their use, companies seek to redefine the benchmark the market uses to evaluate the companies' performance. These non-GAAP income metrics often create a lower bar that companies can more easily reach. By touting non-GAAP performance measures, companies hope to improve the market's assessment of performance.

The SEC will not accept non-GAAP financial statements for quarterly and annual financial reporting. In fact, auditors must cite GAAP exceptions in their audit opinion, which creates a significant red flag. Companies are allowed to use non-GAAP measures in press releases, provided that they also reconcile the non-GAAP numbers to GAAP numbers in the same press release.

It is a criminal offense to issue false or misleading financial statements for the purpose of influencing security prices. Also, most companies have developed and published to employees, codes of conduct that prohibit the falsification of financial reporting for the purpose of job retention, promotion, or compensation. Officially, senior management believes that false financial reports pose significant ethical issues that must be clearly communicated to all employees. Nonetheless, we continue to witness corporate executives doing a "perp walk" on national TV as they are escorted to jail by federal authorities.

Condoning exceptions to financial reporting implicitly condones theft in all of its forms, and the corporate culture quickly deteriorates. Proper corporate governance requires the communication of clear guidelines about what information may be communicated in press releases and how internal performance measures are to be constructed. These must be enforced to the letter.

Buffett is rightly concerned with the use of non-GAAP measures of performance. Once the door is opened to improper reporting, it becomes increasingly difficult to consistently measure performance.

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