Module 1

Framework for Analysis and Valuation

QUESTIONS

Q1-1. Organizations undertake four major activities: planning, 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: assets = liabilities + 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. The five forces (according to Professor Michael Porter) are (A) industry competition, (B) buyer power, (C) supplier power, (D) product substitutes, and (E) threat of entry.

Q1-11. W SWOT stands for Strengths and Weaknesses (both are internal factors) Opportunities and Threats (both external factors).

Q1-12. 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.

Q1-13. While firms acknowledge the increasing need for more complete disclosure of financial and nonfinancial information, they have resisted these demands to protect their competitive position. Corporate executives must weigh the benefits they receive from the financial markets as a result of more transparent and revealing financial reporting against the costs of divulging proprietary information to competitors and others.

Q1-14. Subsidiaries are not necessarily owned 100% -- control can usually be effectuated if the parent owns more than 50%. When a non-wholly owned subsidiary earns income, the total net income is apportioned between the parent (the controlling interest) and the remainder (the non-controlling interest).

Q1-15. False. The parent includes 100% of the subsidiary's revenue and expenses (line by line) in order to calculate consolidated net income. Then, the 20% of the net income that is attributable to the non-controlling interest, is reported separately. The effect is to add 80% of the net income but not line by line as the question asks.

Q1-16. Oracle Corporation's share of the reported consolidated net income of $9,017 million is $8,901 million, which is included in retained earnings. The difference of $116 million is the non-controlling interest share of consolidated net income. That amount is not "earned" by Oracle's shareholders and therefore not included in retained earnings.

Q1-17. 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.

Q1-18. 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.

Q1-19. 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.

Q1-20. 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

M1-21. (10 minutes)

Additional CAPEX of $22 billion will increase investing activities. The company will acquire additional property and equipment. This will likely increase operating profit because the additional equipment is to either expand or improve on the company's footprint. All things equal, this will increase the number of customers or perhaps increase revenue per customer. All of the additional CAPEX will need to be financed either by owners or nonowners. Thus, all three types of business activities will be affected.

M1-22. (10 minutes)

Financial-statement users	**Questions**
A. Current shareholders	2. Will the company have enough cash to pay dividends?
B. Company CEO	4. Will there be sufficient profits and cash flow to pay bonuses?
C. Banker	5. Will the company have enough cash to repay its loans?
D. Equity analyst	1. What is expected net income for next quarter?
E. Supplier	3. Has the company paid for inventory purchases promptly in the past?

M1-23. (10 minutes)

a. $ millions

Assets	=	Liabilities	+	Equity
$193,694		$121,697		$71,997

b. Microsoft receives more of its financing from nonowners ($121,697 million) than from owners ($71,997 million).

c. Its owner financing comprises 37.2% of its total financing ($71,997 million / $193,694 million). Thus, nonowners finance 62.8% of Microsoft's total assets.

M1-24. (10 minutes)

a. $ millions

Assets	=	Liabilities	+	Equity
$13,519		$9,141		$4,378

b. Best Buy receives more of its financing from nonowners ($9,141 million) than from owners ($4,378 million).

c. Its owner financing comprises 32.4% of its total financing ($4,378 million / $13,519 million) and nonowners financing comprises 67.6%.

M1-25. (15 minutes)

($ millions)

	Assets	=	Liabilities	+	Equity
Hewlett-Packard	$106,882		$78,731		(a) $28,151
General Mills	$21,712		(b) $16,405		$5,307
Target	(c) $40,262		$27,305		$12,957

Levels of Owner vs Nonowner Financing. The percent of owner financing for each company follows:

Hewlett-Packard	26.3%	($28,151 million / $106,882 million)
General Mills	24.4%	($5,307 million / $ 21,712 million)
Target..................................	32.2%	($12,957 million / $ 40,262 million)

Of the three companies, Target has the highest percentage of owner financing. General Mills and Hewlett-Packard are financed with roughly the same proportions of equity (owner financing

Discussion of Owner vs Nonowner Financing. 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.

M1-26. (15 minutes)

a. In its September 27, 2015 annual report, Starbucks reports the following figures (in $ millions):

Assets	=	Liabilities	+	Equity
$ 12,446.1	=	$ 6,626.3	+	$ 5,819.8

b. As shown, the accounting equation holds for Starbucks. Also, we can see that Starbucks' nonowner financing is 53.2% ($6,626.3 / $12,446.1) of its total financing.

M1-27. (20 minutes)

DuPont Statement of Reinvested Earnings For Year Ended December 31, 2015	
Beginning reinvested earnings, December 31, 2014	$ 16,894
Net income for 2015	1,953
Common stock dividends	(1,542)
Preferred stock dividends	(10)
Treasury stock retirement*	(1,890)
Spin-off of Chemours	(895)
Ending reinvested earnings, December 31, 2015	$ 14,510

* 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 2015, 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.

M1-28. (20 minutes)

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

M1-29. (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.

M1-30. (15 minutes)

Apple—product differentiation and barriers to entry due to technological advantages and legal

Walmart—buyer power due to size and cost leader

Pfizer—product differentiation arising from specific compounds and barriers to entry due to technological advantages and legal

Uber—none, low barriers to entry and product is essentially undifferentiated

American Airlines—some competitive advantage due to barriers to entry arising from significant capital expenditures and government regulation

UPS—none, product is essentially undifferentiated

McDonald's—buyer power due to size and cost leader

M1-31. (25 minutes)

a.

(in millions)	Pfizer	Merck
Total assets	167,460	101,779
Revenue	48,851	39,498
Net income	6,986	4,459

b.

	Pfizer	Merck
Return on assets (ROA)	4.17%	4.38%
Profit margin (PM)	14.30%	11.29%
Asset turnover (AT)	0.29	0.39

Ratio Comparison. The companies have roughly the same ROA—just above 4%. However, Pfizer has a much higher profit margin at 14.30% compared to Merck's PM of 11.29%. The reverse holds true for asset turnover—Merck has a stronger ratio which means that it is more effective with its assets.

M1-32. (10 minutes)

The shareholders of Mondelez International earned $7,267 million. Therefore, that amount should be included in our return on equity calculations along with equity attributable to Mondelez shareholders, in the denominator. The net earnings of $7,291 million was earned on the consolidated activities and, while a useful number for other analysis purposes, it is not appropriate for the ROE calculation.

EXERCISES

E1-33. (15 minutes)

a. Target's inventories consist of the product lines it carries: clothing, electronics, home furnishings, food products, and so forth.

b. Target's Property and Equipment assets consist of land, buildings, store improvements such as lighting, flooring, HVAC, store shelving, shopping carts, and cash registers.

c. 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.

E1-34. (20 minutes)

($ millions)

a. Using the accounting equation:
Assets ($103,065) = Liabilities ($41,980) + Equity (?)
Thus: $\underline{\$61,085}$ = 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; 59.3% in the case of Intel.

b. Using the accounting equation at the *beginning* of the year:
Assets ($7,839) = Liabilities (?) + Equity ($2,529)
Thus: Beginning Liabilities = $5,310

Using the accounting equation at the *end* of the year:
Assets ($7,839 + $821) = Liabilities ($5,310 + $140) + Equity (?)
Thus: Ending Equity = $\underline{\underline{\$3,210}}$

Alternative approach to solving part (b):
∆Assets($-1) = ∆Liabilities($-132) + ∆Equity(?)
where "∆" refers to "change in."
Thus: ∆ *Ending* Equity = $821 - $140 = $681 and
Ending equity = $2,529 + $681 = $3,210

c. 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.

E1-35. (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?

E1-36. (10 minutes)

a. Computation of dividends

	Beginning retained earnings, 2014	$ 18,832
+	Net income	1,384
–	Cash dividends	(?)
=	Ending retained earnings, 2015	$ 18,861

b. Dividends were $1,355 million for 2015. The company paid out dividends equal to 97.9% of 2015 net income ($1,355 / $1,384).

E1-37. (20 minutes)

a. Colgate-Palmolive was profitable during 2015 as evidenced by its positive net profit margin of 8.6%. However, the profit margin is 4% lower than in 2014.

b. Colgate-Palmolive's productivity measure (asset turnover) increased slightly from 1.27 in 2014 to 1.36 in 2015. This indicates that operating assets are generating a slightly higher level of sales than in the prior year. This is a positive development.

c. ROA = Profit margin $\times$ asset turnover.
2015 ROA = 8.6% $\times$ 1.36 = $\underline{\underline{11.7\%}}$.
2014 ROA = 12.6% $\times$ 1.27 = $\underline{\underline{16.0\%}}$.

The decrease in ROA during 2015 results from a decrease in profitability.

E1-38. (15 minutes)

Return on assets (ROA)	=	Net income / Average assets
	=	\$600 / (\$9,245 + \$7,698) / 2]
	=	$\underline{\underline{7.1\%}}$

E1-39. (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.

Continued next page

E1-39. ***concluded***

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.

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.

E1-40. (20 minutes)

a. ROE = Net income / Average stockholders' equity
= $2,757.4 million / [($5,272 million + $5,818 million) / 2] = 49.7%

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

P1-41. (40 minutes)

a. 2015 ROE = \$14,694/ [(\$80,546 + \$81,394)/2] = 18.1%
2014 ROE = \$16,363/ [(\$81,394 + \$76,255)/2] = 20.8%

Wal-Mart's ROE decreased from 2014 to 2015, and is below the median ROE of 18.9% for other companies in the Dow Jones average.

b. 2015 ROA = \$14,694/ [(\$199,581 + \$203,490)/2] = 7.3%
2014 ROA = \$16,363/ [(\$203,490 + \$204,751)/2] = 8.0%

Wal-Mart's ROA decreased slightly from 2014 to 2015 but it is above the median 7.1% 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.

P1-42. (30 minutes)

a.

GENERAL MILLS INC. Income Statement (\$ millions) For Year Ended May 29, 2016	
Revenue	\$16,563.1
Cost of goods sold	10,733.6
Gross profit	5,829.5
Total expenses	4,092.7
Net income	\$ 1,736.8

GENERAL MILLS INC. Balance Sheet (\$ millions) May 29, 2016			
Cash	\$763.7	Total liabilities	\$16,405.2
Noncash assets	20,948.6	Stockholders' equity	5,307.1
Total assets	\$21,712.3	Total liabilities and equity	\$21,712.3

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P1-42. *concluded*

a. continued

GENERAL MILLS INC. Statement of Cash Flows ($ millions) For Year Ended May 29, 2016	
Cash from operating activities	$2,629.8
Cash from investing activities	93.4
Cash from financing activities	(2,293.7)
Net change in cash	429.5
Cash, beginning of year	334.2
Cash, ending year	$ 763.7

b. 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 = $1,736.8 / $ 16,563.1 = 10.49%

Asset turnover = $ 16,563.1 / $ 21,712.3 = 0.763

Return on assets = $1,736.8 / $ 21,712.3 = 8.0% (10.49% × 0.763)

Return on equity = $1,736.8 / $ 5,037.1 = 32.7%

P1-43. (30 minutes)

a.

ABERCROMBIE & FITCH Income Statement ($ thousands) For Year Ended January 30, 2016	
Revenue	$ 3,518,680
Cost of goods sold	1,361,137
Gross profit	2,157,543
Expenses	2,118,984
Net income	$ 38,559

ABERCROMBIE & FITCH Balance Sheet ($ thousands) January 30, 2016			
Cash	$ 588,578	Total liabilities	$ 1,137,317
Noncash assets	1,844,461	Stockholders' equity	1,295,722
Total assets	$ 2,433,039	Total liabilities and equity	$ 2,433,039

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P1-43. *concluded*

a. continued

ABERCROMBIE & FITCH Statement of Cash Flows ($ thousands) For Year Ended January 30, 2016	
Cash from operating activities	$309,941
Cash from investing activities	(122,567)
Cash from financing activities	(119,504)
Net change in cash	67,870
Cash, beginning year	520,708
Cash, ending year	$ 588,578

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 = $38,559 / $3,518,680 = 1.10%

ii. Asset turnover = $3,518,680 / $2,433,039 = 1.45

iii. Return on assets = $38,559 / $2,433,039 = 1.46% (1.10% × 1.45)

iv. Return on equity = $38,559 / $1,295,722 = 2.98%

P1-44. (30 minutes)

a.

CISCO SYSTEMS INC. Income Statement ($ millions) For Year Ended July 30, 2016	
Sales	$49,247
Cost of goods sold	18,287
Gross profit	30,960
Expenses	20,221
Net income	$ 10,739

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P1-44. *concluded*

a. continued

CISCO SYSTEMS INC. Balance Sheet ($ millions) July 30, 2016			
Cash	$ 7,631	Total liabilities	$ 58,067
Noncash assets	114,021	Stockholders' equity	63,585
Total assets	$121,652	Total liabilities and equity	$121,652

CISCO SYSTEMS INC. Statement of Cash Flows ($ millions) For Year Ended July 30, 2016	
Cash from operating activities	$ 13,570
Cash from investing activities	(8,117)
Cash from financing activities	(4,699)
Net change in cash	754
Cash, beginning year	6,877
Cash, ending year	$ 7,631

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 = $10,739 / $49,247 = 21.81%

ii. Asset turnover = $ 49,247 / $121,652 = 0.405

iii. Return on assets= $10,739 / $121,652 = 8.83% (21.81% × 0.405)

iv. Return on equity = $10,739 / $63,585 = 16.89%

P1-45. (15 minutes)

CROCKER CORPORATION Statement of Stockholders' Equity For Year Ended December 31, 2016	Contributed Capital	Retained Earnings	Stockholders' Equity
December 31, 2015	$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, 2016	$150,000	$ 55,000	$205,000

P1-46. (15 minutes)

WINNEBAGO INDUSTRIES Statement of Stockholders' Equity For Year Ended August 27, 2016	Common Stock and APIC	Treasury Stock	Retained Earnings	Accum. Other Comp. Income	Stockholders' Equity
August 29 , 2015	$57,906	$(420,610)	$585,941	$(2,274)	$220,963
Issuance of stock	699				699
Purchase of stock		(1,157)			(1,157)
Net income			45,496		45,496
Other comp. income (loss)				13,249	13,249
Cash dividends			(10,891)		(10,891)
August 27, 2016	$58,605	$(421,767)	$620,546	$10,975	$268,359

P1-47. (30 minutes)

($ millions)

a.

	ROA	ROE
2016	3.43%	6.72%
	$3,538/[($99,782+$106,685)/2]	$3,538/[($52,063+$53,230)/2]
2015	3.70%	7.36%
	$2,675/[($106,685+$37,943)/2]	$2,675/[($53,230 -$19,443)/2]

	Profit Margin (PM)	Asset Turnover (AT)
2016	7.7%	1.15
	($1,526/$19,724)	$19,724/[($18,919+$15,526)/2]
2015	5.4%	1.22
	($1,013/$18,591)	$18,591/[($15,526+$14,842)/2]

Both ROA and ROE weakened from 2015 to 2016.

b. The decrease in ROA is a result of a decline in profit margin (from 13.2% to 12.3%). Compounding this is the fact that the asset turnover also decreased (from 0.280 to 0.279), the decrease was very small so we conclude that the prime reason for the decline in ROA in 2016 was due to decreased profitability.

c. If we use year-end assets instead of average, the ROA in 2015 is 2.51% instead of 3.70% ($2,675/$106,685). The two ratios are markedly different because of the huge increase in assets during 2015. This shows the importance of using averages in the denominator especially when the balance change significantly during the year.

d. 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. This is likely very small in the current economic environment. The bigger effect is that the repurchase of common stock reduced stockholders' equity by almost $2.83 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.

P1-48. (30 minutes)

a.

	ROA	ROE
2015	8.1% $720/[($8,574+$9,245)/2]	31.9% $720/[($2,080+$2,440)/2]
2016	7.1% $600/[($9,245+$7,698)/2]	36.2% $600/[($2,440+$871)/2]

	Profit Margin (PM)	Asset Turnover (AT)
2015	5.5% ($720/$13,110)	1.47 $13,110/[($8,574+$9,245)/2]
2016	4.3% ($600/$14,095)	1.66 $14,095/[($9,245+$7,698)/2]

b. Both ROA and ROE decreased from 2015 to 2016. The increase in ROA is driven by the increase in asset turnover (from 1.47 to 1.66), as profit margin declined during the year (from 5.5% to 4.3%).

P1-49. (20 minutes)

a. ROA = Net income / Average assets

TJX 2016 ROA = $2,277,658/ [($11,499,482 + $10,988,750) / 2] = 20.3%

ANF 2016 ROA = $35,576 / [($2,505,167 + $2,443,039) / 2] = 1.4%

b.

	TJX	ANF
Profit Margin	$2,277,658 / $30,944,938 = 7.4%	$35,576 / $3,518,680 = 1.0%
Asset Turnover	$30,944,938 / [($11,499,482 + $10,988,750) / 2] = 2.75	$35,576 / [($2,443,039 + $2,505,167) / 2 = 1.42
ROA	7.4% × 2.75 = 20.4%*	1.0% × 1.42 = 1.4%

* Rounding difference

Continued next page

P1-49. *concluded*

c. TJX is outperforming ANF in 2016. 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 more than 6 times higher than ANF's. TJX's real competitive advantage, however, is in its asset turnover of nearly 3x, almost double that of ANF's 1.44. In 2016, TJX is outperforming ANF on both dimensions, resulting in a ROA of 20.3%, over 14.5x higher than ANF's ROA of 1.4%.

P1-50. (30 minutes)

a.

	2015	**2014**
ROA	$4,529.3 / [($37,938.7 + $34,227.4) / 2] = 12.6%	$4,757.8 / [($34,227.4 + $36,626.3) / 2] = 13.4%
Profit Margin	$4,529.3 / $16,488.3 = 27.5%	$4,757.8 / $18,169.3 = 26.2%
Asset Turnover	$16,488.3 / [($37,938.7 + $34,227.4) / 2] = 0.46	$18,169.3 / [($34,227.4 + $36,626.3) / 2] = 0.51

b. McDonald's ROA decreased from 2014 to 2015, due to a decrease in asset turnover (0.51 to 0.46). McDonald's profitability increased during the year (from 26.2% to 27.5%) but the increase in profitability was insufficient to outweigh the decrease in productivity.

P1-51. (30 minutes)

a.

	Profit Margin	Asset Turnover	ROA
2013	$4,659 / 30,871 = 15.1%	$30,871/[($33,876+$33,550)/2] = 0.92	15.1% × 0.92 = 13.82%
2014	$4,956 / $31,281 = 15.8%	$31,281/[($33,550+$31,209)/2] = 0.97	15.8% × 0.97 = 15.31%
2015	$4,833 / $30,274 = 16.0%	$30,274/[($31,209+$32,718)/2] = 0.95	16.0% × 0.95 = 15.12%

3M’s ROA increased from 2013 to 2014, with a slight decrease in ROA from 2014 to 2015.

b. The drivers of the ROA increase in 2014 was due to an increase in both 3M’s profit margin and AT ratios. 3M’s profit margin increased from 15.1% to 15.8% and its asset turnover increased from 0.92 to 0.97. The primary driver of the ROA dip in 2015 was a decrease in the asset turnover from 0.97 to 0.95. The 0.2% increase in the profit margin during that period was not enough to offset the effect of the asset turnover decline.

IFRS APPLICATIONS

I1-52. (20 minutes)

a. Return on equity is net income divided by average total stockholders' equity.
Canadian Tire's ROE: $659.4 / [($4,994.2 + $4,855.5) / 2] = 13.4%

b. We know that sales minus expenses equals net income. Using Canadian Tire's numbers we obtain: $12,279.6 - Expenses = $659.4 therefore, Expenses =$11,620.2.

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.

I1-53. (20 minutes)

(currency in millions)	Assets	=	Liabilities	+	Equity
OMV Group	€ 32,664		€ 18,366		(a) €14,298
Ericsson	SEK 284,363		(b) SEK 136,997		SEK 147,366
BAE Systems	(c) £23,085		£20,083		£3,002

Level of Owner vs Nonowner Financing. The percent of owner financing for each company follows: (all currency in millions)

OMV Group	43.8%	(€14,298 / €32,664)
Ericsson	51.8%	(SEK 147,366 / SEK 284,363)
BAE Systems	13.0%	(£3,002 / £23,085)

Ericsson has more than half of its financing from owners. OMV Group is slightly financed more with nonowner financing while BAE Systems is more nonowner-financed

Proportion of Owner vs Nonowner Financing. 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.

I1-54. (25 minutes)

a. 2014 ROE = $1,235/ [($23,253 + $19,646/2] = 5.8%
2015 ROE = $2,826/ [($19,646 + $18,509)/2] = 14.8%

AstraZeneca's ROE increased from 2014 to 2015, but is well below the median ROE of 18.9% for companies in the Dow Jones average.

b. 2014 ROA = $ 1,235 / [($55,899 + $58,595)/2] = 2.2%
2015 ROA = $ 2,826 / [($58,595 + $60,124)/2] = 4.8%

AstraZeneca's ROA increased from 2014 to 2015 but it too is below the median of 7.1%for Dow Jones companies (on average) for both years.

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.

I1-55. (25 minutes)

a. 2015 ROA = £(5,741) / [(£50,164 + £44,214)/2] = (12.17)%
2016 ROA = £138 / [(£44,214 + £43,904)/2] = 0.31%

b. 2015 Profit Margin = £(5,741) / £56,925 = (10.09)%
2016 Profit Margin = £138 / £54,433 = 0.25%

2015 Asset Turnover = £56,925/ [(£50,164 + £44,214)/2] = 1.21
2016 Asset Turnover = £54,433/ [(£44,214 + £43,904)/2] = 1.24

c. Over this period, Tesco's ROA increased from (12.17)% to 0.32%. This increase is due to two factors: i) profitability increased from (10.09)% to 0.25% and ii) asset turnover increased from 1.21 to 1.24. We would conclude that the company is more profitable on every sale and has improved asset efficiency during 2016 compared to 2015. But of the two effects, the profitability effect is the more significant.

ANALYSIS DISCUSSION POINTS

D1-56. (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.

D1-57. (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.

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.

D1-58. (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.

D1-59. (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.

Continued next page

D1-59. ***concluded***

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.

Appendix C
Comprehensive Case

Learning Objectives

LO1 Explain and illustrate a review of financial statements and their components. (p. C-3)

LO2 Assess company profitability and creditworthiness. (p. C-24)

LO3 Forecast financial statements. (p. C-28)

LO4 Describe and illustrate the valuation of firm equity. (p. C-31)

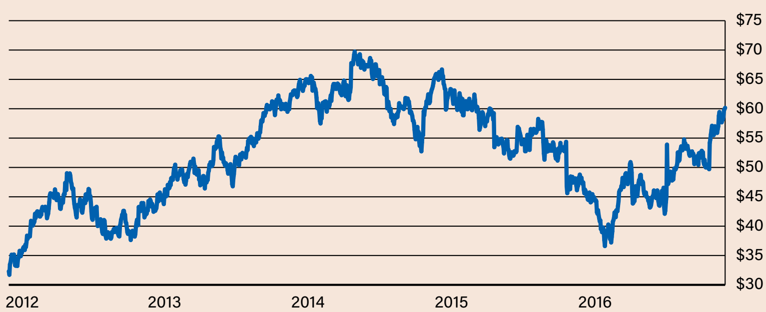
HOG
Market cap: $8,385 mil
Total assets: $9,991 mil
Revenues: $5,995 mil
Net income: $752 mil

Harley-Davidson Inc. designs, manufactures and sells Harley-Davidson motorcycles as well as a line of motorcycle parts, accessories, general merchandise and related services. The Company's products are sold to retail customers through a network of independent dealers, and the Company conducts business on a global basis, with sales in the Americas, Europe, the Middle East, Africa, and the Asia-Pacific region. The U.S. and European markets account for approximately 78% of the total annual independent dealer retail sales of new Harley-Davidson motorcycles.

Harley-Davidson manufactures cruiser and touring motorcycles that feature classic styling, innovative design, distinctive sound, and superior quality with the ability to customize. The Company primarily produces on-road motorcycles with engine displacements of 601cc and its engines range in displacement from 494cc to 1802cc. Harley also provides lease and other financing for its dealers and customers through its wholly-owned financial services subsidiary, Harley-Davidson Financial Services, and this leasing activity accounts for a sizable proportion of its assets and related liabilities as well as leasing revenues and related costs. Its financial statements are, therefore, a blend of those for the manufacturing company and those for the financial services subsidiary that operates like a bank.

In 2015, Harley reported a net profit margin of 12.5% on sales of almost $6 billion and the company generated over $1.1 billion of operating cash flow. Over the past five years, Harley's stock price has fluctuated, staying mostly in the range of $40 to $70 per share. Its 2015 year-end closing price of $45.39 yields a market capitalization of $8.4 billion based on 184.7 million shares outstanding at year-end.

This module presents a financial accounting analysis and interpretation of Harley-Davidson. It is intended to illustrate the key financial reporting topics in the book. We begin with a detailed review of Harley's financial statements and notes, followed by the forecasting of key accounts that we use to value its common stock. [Source: *Harley-Davidson, Inc.*, 2015 10-K]



Road Map

LO	Learning Objective | Topics	Page	eLecture
C-1	**Explain and illustrate a review of financial statements and their components.** Income Statement :: Balance Sheet :: Statement of Cash Flows :: Audit Opinion	C-3	eC–1
C-2	**Assess company profitability and creditworthiness.** ROE Disaggregation :: RNOA Disaggregation :: Credit Analysis	C-24	eC–2
C-3	**Forecast financial statements.** Income Statement :: Balance Sheet :: Statement of Cash Flows	C-28	eC–3
C-4	**Describe and illustrate the valuation of firm equity.** Discounted Cash Flow Valuation :: Residual Operating Income Valuation :: Assessment	C-31	eC–4

Chapter 1. Defining Corporate Communication

- *Discuss the communication challenges for Apple; will the company be able to ride out the recent storm of criticism and requests for more transparency on the back of its strong reputational position, or do you think it now needs to engage more systematically with its stakeholders?*

A good answer will note that there is a trend in corporate communication towards transparency and engagement with stakeholders. The answer will critically reflect on the fact that in the late 1990s and early 2000s, corporate identity and branding were priorities in corporate communication, but there is now a shift towards transparency and stakeholder dialogue. It will also use terms that have been introduced in this chapter such as corporate identity, image and reputation.

An excellent answer may bring in issues around supplier companies and pick up more explicitly on who the key stakeholders are, such as those based in the areas of financial and environmental issues advocacy. Students may note that there are other ways of engaging stakeholders, such as through social media. Answers about stakeholder engagement should be tempered by recognition that Apple is a market leader with a strong iconic brand, a reputation of quality and innovation and cool products, and that whilst the new CEO may lack communication dynamism, there is an opportunity for Apple to communicate the legacy left by Steve Jobs himself.

Chapter 2. Corporate Communication in Contemporary Organizations

- *Describe the vertical and horizontal structuring of corporate communications within Philips. What can you say about the effectiveness of these structures in the light of the company's brand positioning around 'sense and simplicity' and its increased focus on managing its corporate reputation with different stakeholder groups?*

A good answer will describe the case in relation to the vertical and horizontal structures described in the chapter. To start with, the company had a vertical structure. Each division within each unit would have had its own corporate communications and functioned as a very separate entity. There were a number of organizational drivers that encouraged integration, which was embodied in the 'sense and simplicity' campaign which was about unity and consistency across products, processes and communications.

In line with the new strategic direction that wanted to move away from each division as a separate entity towards having 'one treatment' for the company, a more horizontal structure was used for corporate communication campaigns, such as 'Let's make things better' and 'Sense and simplicity' which focused on the overall corporate brand reputation of Philips. Corporate communications was run from a head office in Amsterdam at the headquarters of Philips. They are responsible for reputation issues, measurement and the formulation and planning of corporate