Module 2

Introducing Financial Statements and Transaction Analysis

DISCUSSION QUESTIONS

Q2-1. An asset represents resources a company owns or controls. Assets are expected to provide future economic benefits. Assets arise from past events or transactions. A liability is an obligation that will require a future economic sacrifice. Equity is the difference between assets and liabilities. It represents the claims of the company's owners to its income and assets. The following are some examples of each:

Assets

- Cash
- Receivables
- Inventories
- Plant, property and equipment (PPE)

Liabilities

- Accounts payable
- Accrued liabilities
- Deferred revenue
- Notes payable
- Long-term debt

Equity

- Contributed capital (common and preferred stock)
- Additional paid-in capital
- Retained earnings
- Accumulated other comprehensive income
- Treasury stock

Q2-2. A cost that creates an immediate benefit is reported on the income statement as an expense. A cost that creates a future benefit is added to the balance sheet as an asset (capitalized) and will be transferred to the income statement as the benefit is realized. For example, PPE creates a future benefit and the cost of the PPE is transferred to the income statement (as depreciation expense) over the life of the PPE.

Q2-3. Accrual accounting means that we record revenues when *earned*, and record expenses when they are *incurred*. Accrual accounting does not rely on cash flows in determining when items are revenues or expenses. This is why net income (a GAAP measure) differs from cash from operations.

Q2-4. Transitory items are revenues and expenses that are not expected to recur. One objective of financial analysis is to predict *future* performance. Given that perspective, transitory (nonrecurring) items are not relevant except to the extent that they convey information about future financial performance.

Q2-5. The statement of stockholders' equity provides information about the events that impact stockholders' equity during the period. It contains information relating to net income, stock sales and repurchases, option exercises, dividends and other accumulated comprehensive income.

Q2-6. The statement of cash flows reports the company's cash inflows and outflows during the period, and categorizes them according to operating, investing and financing activities. The income statement reports profit earned under accrual accounting, but does not provide sufficient information concerning cash flows. The statement of cash flows fills that void.

Q2-7. Articulation refers to the fact that the four financial statements are linked to each other and that changes in one statement affect the other three. For example, net income reported on the income statement is linked to the statement of retained earnings, which in turn is linked to the balance sheet. Understanding how the financial statements articulate helps us to analyze transactions and events and to understand how events affect each financial statement separately and all four together.

Q2-8. When a company purchases a machine it records the cost as an asset because it will provide future benefits. As the machine is used up, a portion of this cost is transferred from the balance sheet to the income statement as depreciation expense. The machine asset is, thus, reduced by the depreciation, and equity is reduced as the expense reduces net income and retained earnings. If the entire cost of the machine was immediately expensed, profit would be reduced considerably in the year the machine was purchased. Then, in subsequent years, net income would be far too high as none of the machine's cost would be reported in those years even though the machine produced revenues during that period.

Q2-9. An asset must be "owned" or "controlled," it must provide "future economic benefits," and it must arise from a past transaction or event. Owning means having title to the asset (some leased assets are also recorded on the balance sheet because they are controlled, as we will discuss in our Module 10 entitled, "Reporting and Analyzing Off-Balance-Sheet Financing"). Future benefits may mean the future inflows of cash, or an increase in another asset, or reduction of a liability. Past event means the company has purchased the asset or acquired it in some other cash or noncash transaction or event.

Q2-10. Liquidity refers to the ready availability of cash. That is, how much cash the company has on hand, how much cash is being generated, and how much cash can be raised quickly. Liquidity is essential to the survival of the business. After all, firms must pay loans and employee wages with cash.

Q2-11. Current means that the asset will be liquidated (converted to cash) or used in operations within the next year (or the operating cycle if longer than one year).

Q2-12. GAAP uses historical costs because they are less subjective than market values. Market values can be biased for two reasons: first, we may not be able to measure them accurately (consider our inability to accurately measure the market value of a manufacturing facility, for example), and second, managers may intervene in the reporting process to intentionally bias the results to achieve a particular objective (like enhancing the stock price).

Q2-13. Generally, excluded intangible (unrecorded) assets are those that contribute to a company's sustainable competitive advantage, but that cannot be measured accurately. Some examples include the value of a brand, the management of a company, employee morale, a strong supply chain, superior store locations, credibility with the financial markets, reputation, and so forth.

Q2-14. An intangible asset is an asset that is not physical in nature. To be included on the balance sheet, it has to meet two tests: the company must own or control the asset, it must provide future economic benefits, and the asset must arise from a past event or transaction. Some examples are goodwill, patents and trademarks, contractual agreements like royalties, leases, and franchise agreements. An intangible asset is only recorded on the balance sheet when it is purchased from an outside party. For example, goodwill arises when the company acquires (either with cash or stock) another company's brand name or any of the other intangibles listed above.

Q2-15. An accrued liability is an obligation for expenses that have been incurred but not yet paid for with cash. Examples include wages that have been earned by employees and not yet paid, interest owing on a bank loan, and potential future warranty claims for products sold to customers. When the liability is recognized on the balance sheet, a corresponding expense is recognized in the income statement.

Q2-16. Net working capital = current assets – current liabilities. Increasing the amount of trade credit (e.g., accounts payable to suppliers) increases current liabilities and reduces net working capital. Trade credit is like borrowing from a supplier to make purchases. As trade credit increases, the supplier is lending more money than before. This frees up cash, which the company can use for other purposes such as paying down interest-bearing debt or purchasing additional productive assets. Thus, net working capital decreases. This can be a good thing. As a business grows, its net working capital grows because inventories and receivables generally grow faster than accounts payable and accrued liabilities do. Net working capital must be financed just like long-term assets.

Q2-17. Book value is the amount at which an asset (or liability) is carried on the balance sheet. The book value of the company is the book value of all the assets less the book value of all the liabilities, that is, the book value of stockholders' equity. Book values are determined in accordance with GAAP. Market value is the sale price of an asset or liability. Markets are not constrained by GAAP standards and, therefore, can consider a number of factors that accountants cannot. Market values, therefore, generally differ significantly from book values.

Q2-18. The arrow running from net income to earned capital in the financial statement effects template denotes that retained earnings (part of earned capital) have been updated for the profit earned during the period. Retained earnings are reconciled as follows: beginning retained earnings + profit (– loss) – dividends = ending retained earnings. The line, thus, represents the profits that have been added (or the losses subtracted) to retained earnings (dividends are recorded as a direct reduction of retained earnings in the template).

MINI EXERCISES

M2-19. (15 minutes)

a. Income statement
b. Balance sheet
c. Income statement
d. Balance sheet
e. Income statement
f. Balance sheet
g. Income statement
h. Balance sheet
i. Income statement

M2-20. (15 minutes)

a. Balance sheet
b. Income statement
c. Balance sheet
d. Income statement
e. Balance sheet
f. Balance sheet
g. Balance sheet
h. Balance sheet
i. Income statement
j. Income statement
k. Balance sheet
l. Balance sheet

M2-21. (20 minutes)

a. Net income computation

Service revenue (record when earned)	$200,000	
Wages expense (record when incurred, even if unpaid)	(40,000)	($25,000 + $15,000)
Net income	$160,000	

b. Net cash flow computation

Cash inflow from services rendered	$50,000	($30,000 + $20,000)
Cash outflow for wages paid	(25,000)	
Net cash inflow	$25,000	

Cash inflow from services rendered will be $150,000 less than service revenue per the income statement because Penno only collected $50,000 of revenues in cash but reported $200,000 as revenue. Cash outflow for wages paid will be $15,000 less than wages expense on the income statement because $15,000 remained unpaid at year-end. The combined effects of these two items yields an overall difference of $135,000 between net income and net cash inflow [$160,000 net income and $25,000 net cash inflows].

M2-22. (15 minutes)

a.	A	*e.*	L
b.	L	*f.*	E
c.	E	*g.*	E
d.	A	*h.*	L

M2-23. (10 minutes)

	2012	2013
Beginning retained earnings	$189,089	$ 169,634
Add: Net income (loss)	(19,455)	48,192
Less: Dividends	0	(15,060)
Ending retained earnings	$169,634	$202,766

M2-24. (10 minutes)

JOHNSON & JOHNSON
Statement of Retained Earnings
For Year Ended December 30, 2012

($ millions)	
Retained earnings, January1, 2012	$81,251
Add: Net earnings	10,853
Add: Other retained earnings changes	502
Less: Dividends	(6,614)
Retained earnings, December 30, 2012	$85,992

M2-25. (15 minutes)

	2012	2013
Revenues	$350,000	$ 0
Expenses	225,000	0
Net income	$125,000	$ 0

Explanation: All of the revenue is reported in 2012 when it is earned—per the revenue recognition principle. Likewise, the wages expense is reported in 2012 when it is incurred, that is when the liability to pay the wages arises. The receipt or payment of cash does not affect the recording of revenues, expenses, and net income. There are no revenues or expenses in 2013.

M2-26. (15 minutes)

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
Cash 1,000 CS 1,000 Cash 1,000 | CS | 1,000	*a.* Issue stock for $1,000 cash	+1,000 Cash			=			+1,000 Common Stock				–		=	
INV 500 Cash 500 INV 500 | Cash | 500	*b.* Purchase inventory for $500 cash	-500 Cash		+500 Inventory	=							–		=	
AR 3,000 Sales 3,000 COGS 500 INV 500 AR 3,000 | Sales | 3,000 COGS 500 | INV | 500	*c.* Sell inventory in transaction *b* for $3,000 on credit			+3,000 Accounts Receivable -500 Inventory	=					+2,500 Retained Earnings	+3,000 Sales	–	+500 Cost of Goods Sold	=	+2,500
Cash 2,000 AR 2,000 Cash 2,000 | AR | 2,000	*d.* Receive $2,000 on account receivable in transaction *c*	+2,000 Cash		-2,000 Accounts Receivable	=							–		=	

EXERCISES

E2-27. (20 minutes)

BARTH COMPANY
Income Statement
For Year Ended December 31, 2013

Sales revenue		$500,000
Expenses		
Cost of goods sold	$180,000	
Wages expense	40,000	
Supplies expense	6,000	
Total expenses		226,000
Net income		$274,000

BARTH COMPANY
Balance Sheet
December 31, 2013

Assets		Liabilities and equity	
Cash	$148,000	Accounts payable	$ 16,000
Accounts receivable	30,000	Bonds payable	200,000
Supplies inventory	3,000	Total liabilities	216,000
Inventory	36,000		
Total current assets	217,000		
Land	80,000	Common stock	150,000
Equipment	70,000	Retained earnings	160,000
Buildings	151,000	Total equity	310,000
Goodwill	8,000		
Total assets	$526,000	Total liabilities and equity	$526,000

E2-28. (15 minutes)

BAIMAN CORPORATION **Income Statement** **For Month Ended January 31**	
Sales	$40,000
Wage expense	12,000
Net income (loss)	$28,000

BAIMAN CORPORATION **Balance Sheet** **January 31**	
Cash	$ 0
Accounts receivable	40,000
Total assets	$40,000
Wages payable	$12,000
Retained earnings	28,000
Total liabilities and equity	$40,000

E2-29. (30 minutes)

CARTER COMPANY **Income Statement** **For Month Ended March 31**			
Sales revenue		$28,000	($4,000 + $24,000)
Expenses			
Rent expense	$3,200		
Wage expense	4,800	8,000	
Net income		$20,000	

E2-30. (15 minutes)

Cash 100,000
PPE, net 20,000
CS 120,000

Cash
100,000 |

PPE, net
20,000 |

CS
| 120,000

RNTE 3,200
Cash 3,200

RNTE
3,200 |

Cash
| 3,200

	Balance Sheet									**Income Statement**				
Transaction	**Cash Asset**	+	**Noncash Assets**	=	**Liabil-ities**	+	**Contrib. Capital**	+	**Earned Capital**	**Rev-enues**	–	**Expen-ses**	=	**Net Income**
a. Issued stock for $100,000 cash and PPE of $20,000.	+100,000 Cash		+20,000 PPE, net	=			+120,000 Common Stock				–		=	
b. Paid $3,200 for rent.	-3,200 Cash			=					-3,200 Retained Earnings		–	+3,200 Rent Expense	=	-3,200

Continued next page

E2-30.*concluded*

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabilities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Revenues**	**−**	**Expenses**	**=**	**Net Income**
Cash 4,000 Rev 4,000 Cash 4,000 Rev 4,000	*c.* Performed services for $4,000 cash.	+4,000 Cash			=					+4,000 Retained Earnings	+4,000 Revenue	−		=	+4,000
AR 24,000 Rev 24,000 AR 24,000 Rev 24,000	*d.* Performed services for $24,000 on account.			+24,000 Accounts Receivable	=					+24,000 Retained Earnings	+24,000 Revenue	−		=	+24,000
WE 4,800 Cash 4,800 WE 4,800 Cash 4,800	*e.* Paid $4,800 cash for wages.	-4,800 Cash			=					-4,800 Retained Earnings		−	+4,800 Wages Expense	=	-4,800
Cash 10,000 AR 10,000 Cash 10,000 AR 10,000	*f.* Received $10,000 cash on receivable.	+10,000 Cash		-10,000 Accounts Receivable	=							−		=	
RE 935 Cash 935 RE 935 Cash 935	*g.* Paid dividends of $935.	-935 Cash			=					-935 Retained Earnings		−		=	

E2-31. (15 minutes)

a. Staples, Inc. ($ millions)

	Amount	Classification
Sales	$24,381	I
Accumulated depreciation	4,067	B
Depreciation expense	408	I
Retained earnings	6,694	B
Net income (loss)	(211)	I
Property, plant and equipment, net	6,030	B
Selling, general and admin expense	4,884	I
Accounts receivable	1,816	B
Total liabilities	6,144	B
Stockholders' equity	6,136	B

b. Total Assets = Total Liabilities + Stockholders' Equity
Total Assets = $6,144 million + $6,136 million = $12,280 million

Sales – Total Expenses = Net Income
$24,381 million – Total Expenses = $(211) million
Thus, Total Expenses = $24,592 million

c. Net Profit Margin = Net loss/Sales = $(211) million/$24,381 million
Net Profit Margin = (0.87)%

Total Liabilities-to-Equity Ratio = Total Liabilities/Stockholders' Equity
Total Liabilities-to-Equity Ratio = $6,144 million/$6,136 million = 1.00

E2-32. (15 minutes)

a. Target Corp ($ millions)

	Amount	Classification
Total revenues	$ 71,960	I
Accumulated depreciation	13,311	B
Depreciation and amortization expense	2,142	I
Retained earnings	13,155	B
Net income	2,999	I
Property, plant & equipment	30,653	B
Selling, general & admin expense	14,914	I
Credit card receivables	5,841	B
Total liabilities	31,605	B
Stockholders' equity	16,558	B

b. Total Assets = Total Liabilities + Stockholders' Equity
Total Assets = $31,605million+ $16,558million= $48,163 million

Total Revenue – Total Expenses = Net Income
$71,960 million – Total Expenses = $2,999 million
Thus, Total Expenses = $68,961 million

c. Net Profit Margin = Net income / Sales
Net Profit Margin = $2,999 million / $71,960 million = 4.17%

Total Liabilities-to-Equity Ratio = Total Liabilities / Stockholders' Equity
Total Liabilities-to-Equity Ratio = $31,605 million / $16,558million= 1.91

E2-33. (15 minutes)

a.

($ millions)	ANF		TJX	
Sales	$4,511		$25,878	
Cost of goods sold	1,694	37.6%	18,521	71.6%
Gross profit	2,817	62.4%	7,357	28.4%
Total expenses	2,580	57.2%	5,450	21.1%
Net income	$ 237	5.3%*	$ 1,907	7.4%*

*percentages do not add due to rounding

ANF is a high-end retailer and TJX operates in the value-priced segment of the market. Their respective business models are clearly evident in the gross profit margin. ANF's gross profit margin is more than twice that of TJX (62.4% compared to 28.4%). This implies that ANF adds a healthy markup to determine their merchandise sales price. The high-end segment also requires additional personnel, advertising, and other operating costs. ANF's expense margin is nearly three times higher (57.2% compared to 21.1%). On balance, TJX is bringing down to the bottom line a greater percentage of each sales dollar than is ANF (7.4% vs. 5.3%). In this year, TJX's business model appears to be more profitable than ANF's.

b.

($ millions)	ANF		TJX	
Current assets	$ 1,308	43.8%	$ 5,712	60.1%
Long-term assets	1,679	56.2%	3,800	39.9%
Total assets	$2,987		$ 9,512	
Current liabilities	$ 691	23.1%	$ 3,761	39.5%
Long-term liabilities	478	16.0%	2,085	21.9%
Total liabilities	1,169	39.1%	5,846	61.5%
Stockholders' equity	1,818	60.9%	3,666	38.5%
Total liab. and equity	$ 2,987		$9,512	

ANF has lower levels of current assets relative to total assets than does TJX. For clothing retailers, current assets are primarily cash and inventories. If the two companies have about the same levels of cash, we would conclude that ANF holds less inventory. This makes sense given that TJX has discount-type stores chock-full of merchandise.

c. ANF has a much greater proportion of stockholders' equity in its capital structure (60.9% compared to 38.5% at TJX). This means that TJX relies more on debt to fund its operations than ANF. This is evident in both a higher percentage of current and long-term liabilities as a percent of total assets. Current liabilities are typically non-interest bearing and self-liquidating (for example, paid from the cash from inventory sales). Long-term debt, however, is typically interest bearing and requires periodic payments of interest and principal. The debt payment requirements add an element of risk and we might conclude that TJX is a slightly riskier company.

E2-34. (15 minutes)

a.

($ millions)	AAPL		DELL	
Sales	$156,508		$56,940	
COGS	87,846	56.1%	44,754	78.6%
Gross profit	68,662	43.9%	12,186	21.4%
Total expenses	26,929	17.2%	9,814	17.2%
Net income	$41,733	26.7%	$2,372	4.2%

AAPL's gross profit margin is more than double DELL's (43.9% compared to 21.4%). This is likely due to two factors: first, a large proportion of AAPL's sales relate to the iPod, iPhone, and iPad which are all very high-margin products because they are premium priced. Second, DELL competes as the low-price leader in the PC-sales segment.

b.

($ millions)	AAPL		DELL	
Current assets	$57,653	32.7%	$27,968	58.8%
Long-term assets	118,411	67.3%	19,572	41.2%
Total assets	$176,064		$47,540	
Current liabilities	$38,542	21.9%	$23,439	49.3%
Long-term liabilities	19,312	11.0%	13,400	28.2%
Total liabilities	57,854	32.9%	36,839	77.5%
Stockholders' equity	118,210	67.1%	10,701	22.5%
Total liab. and equity	$176,064		$47,540	

AAPL has a greater proportion of stockholders' equity in its capital structure. Neither of these companies carries a large percentage of long-term liabilities. A greater proportion of debt is generally viewed as a riskier capital structure. However, Dell's relatively high level of short-term debt arises from the fact that the company relies very heavily on supplier financing. Dell is an important customer for many of its suppliers, which gives Dell bargaining power over suppliers with respect to credit terms. Dell's high level of profitability also lessens any concerns one might have regarding its solvency. Apple's equity growth has been relatively recent, resulting from the meteoric rise of the highly profitable iPods, iPhones, and iPads. Unless the company has need for capital, it might come under pressure from shareholders, to pay some of its accumulated cash out to shareholders in the form of a dividend or stock repurchase.

E2-35. (15 minutes)

a.

($ millions)	CMCSA		VZ	
Sales	$62,570		$115,846	
Operating costs	50,391	80.5%	102,686	88.6%
Operating profit	12,179	19.5%	13,160	11.4%
Nonoperating expenses	5,976	9.6%	2,603	2.2%
Net income	$6,203	9.9%	$10,557	9.1%*

*percentages do not add due to rounding

Comcast's product lines yield considerably more operating profit margin than do Verizon's. Its nonoperating expense, however, is higher than Verizon's. Comcast's higher operating profit margin is enough to yield a net profit margin that is higher than Verizon's.

b.

($ millions)	CMCSA		VZ	
Current assets	$19,991	12.1%	$21,235	9.4%
Long-term assets	144,980	87.9%	203,987	90.6%
Total assets	$164,971		$225,222	
Current liabilities	$16,714	10.1%	$26,956	12.0%
Long-term liabilities	98,461	59.7%	112,733	50.1%
Total liabilities	115,175	69.8%	139,689	62.0%*
Stockholders' equity	49,796	30.2%	85,533	38.0%
Total liabilities and equity	$164,971		$225,222	

*percentages don't add due to rounding

Both companies are highly capital intensive, with about 90% of their assets in the long-term category. Both companies' business models necessitate continued investment in long-term assets as they seek to continue to develop their infrastructure.

c. The two companies have relatively high debt loads, which makes them risky compared to other industrial companies. Given the large level of capital expenditures (CAPEX) that the companies will make over the next decade, and the amount of additional debt that they will have to incur to fund CAPEX, the debt levels will be a continuing financial issue for both companies.

E2-36. (30 minutes)

a.

($ millions)	TJX		AAPL	
Sales	$25,878		$156,508	
COGS	18,521	71.6%	87,846	56.1%
Gross profit	7,357	28.4%	68,662	43.9%
Total expenses	5,450	21.1%	26,929	17.2%
Net income	$1,907	7.4%*	$41,733	26.7%

*percentages don't add due to rounding

TJX is a value-priced clothing retailer whose main expense is cost of sales. AAPL's products are well differentiated and patent-protected. The difference in their respective business models is clearly evident in the level of gross profit. AAPL's gross profit margin is over 50% greater than TJX's. This does not imply that AAPL is a better-managed company. Much of the difference in operating percentages between companies in different industries is related to differences in their respective business models. AAPL net income as a percentage of sales is more than 3.6X than that of TJX. On this dimension, AAPL's business model appears to be more profitable.

b.

($ millions)	TJX	AAPL
Sales	$25,878	$156,508
Total assets	$9,512	$176,064
Sales / Total assets	2.72	0.89

TJX's sales are almost three times its total assets. AAPL's sales are less than its total assets. It might be tempting, therefore, to conclude that AAPL is more capital intensive than TJX. Over one-third of AAPL's total assets, however, consist of cash and investments in marketable securities. This level of liquidity increases total assets, which depresses the asset turnover ratio.

c.

($ millions)	TJX	AAPL
Total liabilities	$5,846	$57,854
Stockholders' equity	3,666	118,210
Total liabilities / Stockholders' equity	1.59	0.49

TJX operates with much more debt relative to equity than does AAPL. Companies with higher proportions of debt are generally viewed as riskier because failure to make required debt payments can have significant negative consequences.

d.

($ millions)	TJX	AAPL
Net income	$1,907	$41,733
Stockholders' equity	3,666	118,210
Net income / Stockholders' equity	52.0%	35.3%

TJX's net income to stockholders' equity ratio (ROE) is almost 1.5 times greater than AAPL's. Although TJX's profit per sales dollar is only 7.4%, far less than AAPL's 26.7%, its sales-to-assets ratio more than offsets the difference. TJX relies on asset productivity to drive its returns, and appears to be succeeding on that dimension. It is important to keep in mind, however, that APPL's net income to equity ratio is depressed by the relatively low yields on marketable securities and could be increased significantly if some of that liquidity were to be returned to shareholders as a dividend or stock buyback.

E2-37. (20 minutes)

		Balance Sheet									Income Statement				
	Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expen-ses	=	Net Income
WE 500 WP 500 **WE** **500 |** **WP** **| 500**	*a.* $500 of wages are earned byemployees but not yet paid				=	+500 Wages Payable				-500 Retained Earnings		–	+500 Wages Expense	=	-500
INV 2,000 AP 2,000 **INV** **2,000 |** **AP** **| 2,000**	*b.* $2,000 of inventory is purchased on credit			+2,000 Inventory	=	+2,000 Accounts Payable						–		=	
AR 4,000 Sales 4 ,000 COGS 2,000 INV 2,000 **AR** **4,000 |** **Sales** **| 4,000** **COGS** **2,000 |** **INV** **| 2,000**	*c.* The inventory purchased in transaction *b* is sold for $4,000 on credit			+4,000 Accounts Receivable -2,000 Inventory	=					+2,000 Retained Earnings	+4,000 Sales	–	+2,000 Cost of Goods Sold	=	+2,000
Cash 3,000 AR 3,000 **Cash** **3,000 |** **AR** **| 3,000**	*d.* Collected $3,000 cash from transaction *c.*	+3,000 Cash		-3,000 Accounts Receivable	=							–		=	
PPE, net 5,000 Cash 5,000 **PPE, net** **5,000 |** **Cash** **| 5,000**	*e.* $5,000 equipment is acquired for cash	-5,000 Cash		+5,000 PPE, net	=							–		=	

Continued next page

E2-37.*concluded*

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
DE 1,000 PPE, net 1,000 **DE** **1,000 |** **PPE,net** **| 1,000**	*f.* Record depreciation			-1,000 PPE, net	=					-1,000 Retained Earnings		–	+1,000 Depreciation Expense	=	-1,000
NP 10,000 Cash 10,000 **NP** **10,000 |** **Cash** **| 10,000**	*g.* Paid $10,000 cash on a note payable that came due	-10,000 Cash			=	-10,000 Note Payable						–		=	
IE 2,000 Cash 2,000 **IE** **2,000 |** **Cash** **| 2,000**	*h.* Paid $2,000 cash interest on borrowings	-2,000 Cash			=					-2,000 Retained Earnings		–	+2,000 Interest Expense	=	-2,000

PROBLEMS

P2-38. (30 minutes)

a. ($ millions)

	Current Assets	Long-term Assets	Total Assets	Current Liabilities	Long-term Liabilities	Total Liabilities	Stockholders' Equity
2010	$12,215	$17,941	$30,156	$6,089	$8,050	$14,139	$16,017
2011	12,240	19,376	31,616	5,441	10,313	15,754	15,862
2012	13,630	20,246	33,876	6,200	9,636	15,836	18,040

b. 3M's current assets most likely include cash, accounts receivable, inventories, and prepaid assets.

Its long-term assets most likely include property, plant and equipment (PPE), goodwill, and other intangible assets that have arisen from acquisitions.

P2-39. (30 minutes)

a.

Cash 150,000
NP 100,000
CS 50,000

Cash
150,000 |

NP
| 100,000

CS
| 50,000

	Balance Sheet									Income Statement				
Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
Beginning bal.	0		0	=	0		0		0		–		=	
1. Sefcik invested $50,000 inexchange for common stock; company borrowed $100,000 from a bank	+150,000 Cash			=	+100,000 Note Payable		+50,000 Common Stock				–		=	

Continued next page

P2-39.*continued*

PPE, net95,000
INV   40,000
    Cash   95,000
    AP   40,000

PPE, net
95,000 |

INV
40,000 |

Cash
| 95,000

AP
| 40,000

Cash   50,000
COGS   30,000
    Sales   50,000
    INV   30,000

CASH
50,000 |

COGS
30,000 |

Sales
| 50,000

INV
| 30,000

WE   12,000
    Cash   12,000

WE
12,000 |

Cash
| 12,000

IE   1,000
    Cash   1,000

IE
1,000 |

Cash
| 1,000

	Balance Sheet									Income Statement				
Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
2. Sefcik purchased equipment for $95,000 cash and inventory of $40,000 on credit	-95,000 Cash		+95,000 PPE, net +40,000 Inventory	=	+40,000 Accounts Payable						–		=	
3. Sefcik Co. sold inventory costing $30,000 for $50,000 cash	+50,000 Cash		-30,000 Inventory	=					+50,000 Retained Earnings -30,000 Retained Earnings	+50,000 Sales	–	+30,000 Cost of Goods Sold	=	+50,000 -30,000
4. Sefcik Co. paid $12,000 cash for wages owed employees for October work	-12,000 Cash			=					-12,000 Retained Earnings		–	+12,000 Wage Expense	=	-12,000
5. Sefcik Co. paid interest on the bank loan of $1,000 cash	-1,000 Cash			=					-1,000 Retained Earnings		–	+1,000 Interest Expense	=	-1,000

Continued next page

P2-39.*concluded*

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil- ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev- enues**	**–**	**Expen- ses**	**=**	**Net Income**
DE 500 PPE, net 500 DE 500 PPE, net 500	6. Sefcik Co. recorded $500 depreciation expense related to equipment			-500 PPE, net	=					-500 Retained Earnings		–	+500 Deprec. Exp	=	-500
RE 2,000 Cash 2,000 RE 2,000 Cash 2,000	7. Sefcik Co. paid$2,000 cash dividend	-2,000 Cash			=					-2,000 Retained Earnings		–		=	
	Ending balance	90,000		104,500	=	140,000		50,000		4,500	50,000	–	43,500	=	6,500

b.

SEFCIK CO.
Income Statement
For Month of October

Sales revenue	$50,000
Total expenses	43,500
Net income	$ 6,500

SEFCIK CO.
Retained Earnings Reconciliation
For Month of October

Retained earnings, October 1		$ 0
Add:	Net income	6,500
Less:	Dividends	(2,000)
Retained earnings, October 31		$ 4,500

SEFCIK CO.
Balance Sheet
October 31

Cash	$ 90,000	Liabilities	$140,000
Noncash assets	104,500		
		Contributed capital	50,000
		Retained earnings	4,500
		Total equity	54,500
Total assets	$194,500	Total liabilities and equity	$194,500

P2-40. (30 minutes)

		Balance Sheet										**Income Statement**				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**		**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
Cash 10,000 CS 10,000 Cash 10,000 | CS | 10,000	1. Shareholders contribute $10,000 cash to the business in exchange for common stock	+10,000 Cash			=			+10,000 Common Stock					–		=	
WE 500 WP 500 WE 500 | WP | 500	2. Employees earn $500 in wages that have not been paid at period-end				=	+500 Wages Payable				-500 Retained Earnings			–	+500 Wages Expense	=	-500
INV 3,000 AP 3,000 INV 3,000 | AP | 3,000	3. Inventory of $3,000 is purchased on credit			+3,000 Inventory	=	+3,000 Accounts Payable							–		=	

Continued next page

P2-40.*continued*

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
AR 4,500 COGS 3,000 Sales 4,500 INV 3,000 **AR** 4,500 | **COGS** 3,000 | **Sales** | 4,500 **INV** | 3,000	4. The inventory purchased in transaction 3 is sold for $4,500 on credit			+4,500 Accounts Receivable -3,000 Inventory	=					+4,500 Retained Earnings -3,000 Retained Earnings	+4,500 Sales	–	+3,000 Cost of Goods Sold	=	+4,500 -3,000
Cash 4,500 AR 4,500 **Cash** 4,500 | **AR** | 4,500	5. The company collected the $4,500 owed to it per transaction 4	+4,500 Cash		-4,500 Accounts Receivable	=							–		=	
PPE, net 5,000 Cash 5,000 **PPE, net** 5,000 | **Cash** | 5,000	6. Equipment is purchased for $5,000 cash	-5,000 Cash		+5,000 PPE, net	=							–		=	

Continued next page

P2-40. (continued)

		Balance Sheet									Income Statement				
	Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expenses	=	Net Income
DE 1,000 PPE, net 1,000 DE 1,000 ┃ PPE, net ┃ 1,000	7. Depreciation of $1,000 is recorded on the equipment from transaction 6			-1,000 PPE, net	=					-1,000 Retained Earnings		–	+1,000 Depreciation Expense	=	-1,000
SUPE 3,000 SUP 3,000 SUPE 3,000 ┃ SUP ┃ 3,000	8. Supplies account had a $3,800 balance at beginning of this period; a physical count at period-end shows $800 of supplies still available. No supplies were purchased this period.			-3,000 Supplies	=					-3,000 Retained Earnings		–	+3,000 Supplies Expense	=	-3,000
NP 12,000 IE 500 Cash 12,500 NP 12,000 ┃ IE 500 ┃ Cash ┃ 12,500	9. The company paid $12,000 cash toward the principal on a note payable; also, $500 cash is paid to cover this note’s interest expense for the period	-12,500 Cash			=	-12,000 Note Payable				-500 Retained Earnings		–	+500 Interest Expense	=	-500

Continued next page

P2-40.concluded

		Balance Sheet									Income Statement				
	Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expen-ses	=	Net Income
Cash 8,000 UR 8,000 Cash 8,000 | UR | 8,000	10. The company receive $8,000 cash in advance for services to be delivered next period	+8,000 Cash			=	+8,000 Unearned Revenue						–		=	

P2-41. (30 minutes)

a.

Company	Gross Profit / Sales	Net Income/ Sales	Net Income/ Equity	Liabilities/ Equity
Target..............................	31.0%	4.1%	18.1%	1.91
Nike.................................	43.6%	9.8%	22.3%	0.58
Harley-Davidson..............	42.3%	11.2%	24.4%	2.59
Cisco Systems.................	60.6%	20.5%	16.9%	0.71

b. Companies generally realize higher gross profit margins if there is some limit on competition, such as a barrier to entry. This barrier to entry can be legal in nature such as that afforded by a patent; or operational, such as that created by strong brand identity. Cisco, Nike and Harley all enjoy above-average gross profit margins. Cisco is a technology company that benefits from patents on desirable technology. Nike and Harley have strong and valuable brands. Nike relies on its advertising campaigns while Harley enjoys its cult following. Target, while a strong brand, sells goods that are difficult to differentiate and the company cannot command the pricing power that the other three companies enjoy.

Net profit margin (Net income / Sales) is a function of both gross profit margin and expense control. Cisco's, Harley's and Nike's net profit margins are the highest of the companies in this sample, resulting from their high gross profit margin and excellent expense control. Nike's net profit margin is curtailed, to some extent, by the significant operating expenses that reduce its net income. Target's net profit margin is only average for publicly-traded companies, reflecting the lack of product differentiation and significant advertising expense.

c. Harley enjoys the highest return on equity (measured as net income to equity), followed by Nike.Harley and Nike are premium brands that have effectively differentiated their products and can, therefore, enjoy above-average returns on stockholder investment.

d. Target and Harley have the highest proportion of debt in their capital structures mostly because of Target's proprietary credit card and Harley-Davidson Financial Services (its loan and lease financing subsidiary). The balance sheets and income statements of financial operations are similar to that of a bank – high debt levels and relatively low margins. Both companies consolidate their financial operations with those of the operating company. This inflates their consolidated debt level above what we typically observe for stand-alone retail and manufacturing operations. Finally, companies that enjoy relatively stable cash flows can afford higher debt levels because there is some assurance that future cash flows will be sufficient to cover fixed debt payments. The other two companies operate with a greater proportion of equity than of debt.

P2-42. (30 minutes)

a.

Company	Net Income / Sales	Rank
Macy’s	4.8%	2
Home Depot, Inc.	6.1%	1
Staples, Inc.	(0.9)%	5
Target Corp.	4.1%	3
Wal-Mart Stores	3.6%	4

Home Depot, Macy’s, and Target report the highest net profit margins. These companies have succeeded at effectively differentiating their brands and/or controlling their costs. Wal-Mart and Staples operate in highly competitive markets with undifferentiated product lines.

b.

Company	Operating Cash Flow / Sales	Rank
Macy’s	8.2%	2
Home Depot, Inc.	9.3%	1
Staples, Inc.	5.0%	5
Target Corp.	7.3%	3
Wal-Mart Stores	5.5%	4

Home Depot, Macy’s, and Target report the highest level of operating cash flow as a percentage of sales. These are very efficient operations. Wal-Mart and Staples are not as effective on this dimension. The ranking for this ratio are exactly the same as for the net profit margins.

c.

Company	Investing Cash Flow / Sales	Rank
Macy’s	(3.1)%	4
Home Depot Inc.	(1.9)%	2
Staples Inc.	(1.4)%	1
Target Corp.	(3.9)%	5
Wal-Mart Stores	(2.7)%	3

Investing cash flows are typically negative (cash outflow), representing the purchase of PPE. The companies’ rankings here, do not correspond with their rankings in partsa and b.The company with the lowest net profit margin, Staples, had the best investing cash flow margin, signifying they spent the least on purchasing assets.

d. Negative cash flows from financing activities can occur for three reasons: net debt repayments in excess of new borrowings, stock repurchases (in excess of stock sales), and dividend payments. Companies typically do not reduce debt unless their debt levels are uncomfortably high or the company has excess cash or marketable securities. Companies repurchase their stock to 1) signal to the market that the company believes its stock is undervalued,2) return capital to shareholders in a tax-advantaged way (for example, if the tax rates on capital gains are less than those on dividends), or 3) honor employee stock option exercises. Not all companies pay dividends so this is not as common as the first two reasons for negative financing cash flows.

P2-43. (40 minutes)

a. Depreciation is added back to undo the effect it had on the income statement. Wal-Mart deducted $8,501million of depreciation (and amortization) expense in computing net income. Depreciation is a noncash expense so Wal-Mart did not actually use $8,501 million of cash to pay depreciation expense. Thus, to determine how much cash was generated, net income is too low by the depreciation amount of $8,501 million. The depreciation add-back is NOT a source of cash as some mistakenly believe. Cash is, ultimately, generated by profitable operations, not by depreciation.

b. Revenue is recognized, and profit increased, when it is earned, whether or not cash is received. Sales on account, therefore, increase profit, and the deduction for the increase in receivables reflects the fact that cash has not yet been received.

The negative sign on the increase in inventories reflects the outflow of cash when inventories are purchased. Inventories are typically purchased on account. As a result, payment is not made when the inventories are purchased. The positive sign on the increase in accounts payable offsets a portion of the negative sign on the inventory increase, and the net amount represents the net cash paid for the increase in inventories. Accounts payable are typically non-interest bearing, thus providing a cheap and important source of cash.

Accruals relate to expenses that have been recognized in the income statement that have not yet been paid. An increase in accrued liabilities means that cash paid out for expenses during the year was less than the expenses recognized in the income statement. Therefore, an increase in accrued expenses is shown as a cash inflow.

c. Companies must continue to invest in their infrastructure, both for new additions and replacement, to remain competitive. Depreciation expense represents the using up of depreciable assets. In general, we should expect capital expenditures (CAPEX) to exceed depreciation expense. This indicates that the company is growing its infrastructure as well as replacing the portion that is wearing out.

d. If Wal-Mart can make a better return on reinvesting its cash back into the business than the return shareholders can earn for themselves on the cash they would receive, Wal-Mart should forgo paying dividends or repurchasing shares. Many companies with large cash inflows, especially mature companies in relatively saturated markets, find it hard to uncover additional investment opportunities. In those cases, returning the cash to investors is better than investing it in marketable securities, because investors can do that for themselves.

e. Wal-Mart is a large, mature, and profitable company. In fiscal 2013, the company generated 44% more operating cash flows than reported profits; $25,591 million of operating cash flow compared to $17,756 million in net income. It funds capital expenditures for new stores and remodels with operating cash flows with no need for external financing. In the financing area, the company is borrowing to repurchase stock and to pay dividends, a substitution of lower-cost debt for higher-cost equity. This is a typical profile for a large, well-capitalized company like Wal-Mart. In sum, Wal-Mart is exceptionally strong, and the company will likely continue investing in its infrastructure.

P2-44. (40 minutes)

a. Depreciation is added back to undo the effect it had on the income statement. Verizon deducted $16,460 million of depreciation expense in computing net income. Depreciation is a noncash expense so Verizon did not actually use $16,460 million cash to pay depreciation. Thus, to determine how much cash was generated, net income is too low by the depreciation amount of $16,460 million. The depreciation add-back is NOT a source of cash as some mistakenly believe. Cash is, ultimately, generated by profitable operations, not by depreciation.

The relative size of the add-back indicates that the company is extremely capital intensive. The add-back is 50% larger than net income itself.

b. The MD&A section of the 10-K provides management's assessment of the operating results and investment activities of the company. Because it is regulated by SEC disclosure rules, the 10-K is a source of useful information that includes less promotional material than other statements by the company.

Companies must continue to invest in their infrastructure, both for new additions and replacement, to remain competitive. Depreciation expense represents the using up of depreciable assets. In general, we should expect capital expenditures (CAPEX) to exceed depreciation expense. This indicates that the company is growing its infrastructure as well as replacing the portion that is wearing out. Verizon's CAPEX is slightly lower than depreciation. The company appears to be just replacing depreciated assets and not making new additions to its infrastructure.

c. Verizon's high debt load places severe demands on its operating cash flow. Cash that should be used to develop its infrastructure must be allocated to the payment of debt. This is particularly problematic for Verizon as it is facing stiff competition from rival Comcast and must make substantial capital investments to remain competitive.

d. Unlike debt, dividends are not a contractual obligation until declared by the board of directors. Although stock price may fall if the company reduces dividends, shareholders cannot force the company into bankruptcy like debt holders can. Nevertheless, high dividend-paying companies, such as Verizon, typically continue their dividend payout even if they must borrow funds to do so as failure to maintain dividend payment levels would depress the market price of the company stock and increase the cost of equity capital should the company need to use its stock to raise capital or acquire another company.

e. Verizon's operations generated a significant amount of cash. Its capital expenditures are significant as the company continues to replace depreciating assets. High capital outlays would, ordinarily, not be a problem were it not for the company's significant existing debt load. Verizon's debt repayment for 2012 was $6,403million for long-term debt and an additional $1,437million for short-term debt. In addition, the company paid interest expense that is recorded in its income statement. Although the company is financially strong, balancing its debt level with the cash flow needs for capital expenditures to support its operating activities and dividends to support its stock price is a difficult challenge facing the company.

P2-45. (25 minutes)

a.

		Balance Sheet									Income Statement				
	Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Revenues**	**–**	**Expenses**	**=**	**Net Income**
Cash 155,000 NP 55,000 CS 100,000 **Cash** 155,000 │ **NP** │ 55,000 **CS** │ 100,000	1. Received $100,000 cash for common stock and borrowed $55,000 cash	+155,000 Cash			=	+55,000 Notes Payable		+100,000 Common Stock				–		=	
PPE, net 50,000 NP 40,000 Cash 10,000 **PPE, net** 50,000 │ **NP** 40,000 **Cash** │ 10,000	2. Purchased $50,000 of equipment, for $10,000 cash and $40,000 note payable	-10,000 Cash		+50,000 PPE, net	=	+40,000 Notes Payable						–		=	
INV 80,000 Cash 80,000 **INV** 80,000 │ **Cash** │ 80,000	3. Purchased $80,000 of inventory for cash	-80,000 Cash		+80,000 Inventory	=							–		=	
Cash 60,000 AR 40,000 COGS 70,000 Sales 100,000 INV 70,000 **AR** 40,000 │ **Cash** 60,000 │ **COGS** 70,000 │ **Sales** │ 100,000 **INV** │ 70,000	4. Sold Inventory for $60,000 cash and $40,000 on credit, cost of inventory $70,000	+60,000 Cash		+40,000 Accounts Receivable -70,000 Inventory	=					+30,000 Retained Earnings	+100,000 Sales	–	+70,000 Cost of Goods Sold	=	+30,000

P2-45.continued

		Balance Sheet									Income Statement				
	Transaction	Cash Asset	+	Noncash Assets	=	Liabil- ities	+	Contrib. Capital	+	Earned Capital	Rev- enues	–	Expenses	=	Net Income
PPDA 10,000 Cash 10,000 PPDA 10,000 | Cash | 10,000	5. Paid $10,000 cash for future advertising time	-10,000 Cash		+10,000 Prepaid Advertising	=							–		=	
AE 7,500 PPDA 7,500 AE 7,500 | PPDA | 7,500	6. $7,500 of advertising time in transaction 5 is aired			-7,500 Prepaid Advertising	=					-7,500 Retained Earnings		–	+7,500 Advertising Expense	=	-7,500
WE 17,000 Cash 17,000 WE 17,000 | Cash | 17,000	7. Employees paid $17,000 cash in wages	-17,000 Cash			=					-17,000 Retained Earnings		–	+17,000 Wages Expense	=	- 17,000
WE 1,000 WP 1,000 WE 1,000 | WP | 1,000	8. Employees earn $1,000 in wages not yet paid				=	+1,000 Wages Payable				-1,000 Retained Earnings		–	+1,000 Wages Expense	=	-1,000
DE 2,000 PPE, net 2,000 DE 2,000 | PPE, net | 2,000	9. Record depreciation of $2,000 on equipment*			-2,000 PPE, net	=					-2,000 Retained Earnings		–	+2,000 Depreciation Expense	=	-2,000
	Ending Balances	98,000		100,500	=	96,000		100,000		2,500	100,000	–	97,500	=	2,500

* PPE, net = Equipment, gross less Accumulated Depreciation.

Continued next page

P2-45.concluded

b.

ANIFOODS, INC.
Income Statement
For Month Ended March 31

Sales	$100,000
Cost of goods sold	(70,000)
Gross profit	30,000
Advertising expense	(7,500)
Wages expense	(18,000)
Depreciation expense	(2,000)
Net income	$ 2,500

ANIFOODS, INC.
Balance Sheet
March 31

Cash	$98,000	Wages payable	$ 1,000
Accounts receivable	40,000	Note payable (to owner)	55,000
Inventory	10,000	Note payable (to vendor)	40,000
Prepaid advertising	2,500	Total liabilities	96,000
Equipment, gross	50,000		
Less: Accum depreciation	(2,000)	Common stock	100,000
Equipment, net	48,000	Retained earnings	2,500
Total assets	$198,500	Total liabilities and equity	$198,500

P2-46.

a.

	Balance Sheet									Income Statement				
Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabilities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Revenues**	**–**	**Expenses**	**=**	**Net Income**
Beginning bal.	80,000		135,000	=	70,000		110,000		35,000		–		=	
1. The company purchased supplies for $5,000 cash; none were used this month	-5,000 Cash		+5,000 Supplies	=							–		=	
2. Services of $2,500 were performed this month on credit			+2,500 Accounts Receivable	=					+2,500 Retained Earnings	+2,500 Revenues	–		=	+2,500
3. Services were performed for $10,000 cash this month	+10,000 Cash			=					+10,000 Retained Earnings	+10,000 Revenues	–		=	+10,000
4. The company purchased advertising for $8,000 cash; the ads will run next month	-8,000 Cash		+8,000 Prepaid Advertising	=							–		=	

SUP 5,000
Cash 5,000

SUP	
5,000	

Cash	
	5,000

AR 2,500
REV 2,500

AR	
2,500	

REV	
	2,500

Cash 10,000
REV 10,000

Cash	
10,000	

REV	
	10,000

PPDA 8,000
Cash 8,000

PPDA	
8,000	

Cash	
	8,000

P2-46.continued

		Balance Sheet									Income Statement				
	Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expen-ses	=	Net Income
Cash 1,200 AR 1,200 Cash 1,200 | AR | 1,200	5. The company received $1,200 cash as partial payment on accounts receivable from transaction *2*	+1,200 Cash		-1,200 Accounts Receivable	=							–		=	
AP 3,400 Cash 3,400 AP 3,400 | Cash | 3,400	6. The company paid $3,400 cash toward accounts payable.	-3,400 Cash			=	-3,400 Accounts Payable						–		=	
WE 3,500 Cash 3,500 WE 3,500 | Cash | 3,500	7. Paid $3,100 cash toward this month's wages expenses	-3,500 Cash			=					-3,500 Retained Earnings		–	+3,500 Wages Expense	=	-3,500
RE 500 Cash 500 RE 500 | Cash | 500	8. The company declared and paid dividends of $500 cash	-500 Cash			=					-500 Retained Earnings		–		=	
	Ending balance	70,800		149,300	=	66,600		110,000		43,500	12,500	–	3,500	=	9,000

Continued next page

P2-46. (concluded)

b.

HANLON ADVERTISING COMPANY
Income Statement
For Current Month

Sales revenue	$12,500
Total expenses	3,500
Net income	$ 9,000

HANLON ADVERTISING COMPANY
Retained Earnings Reconciliation
For Current Month

Retained earnings, beginning of month	$ 35,000
Add Net income	9,000
Less: Dividends	(500)
Retained earnings, end of month	$ 43,500

HANLON ADVERTISING COMPANY
Balance Sheet
Month-End

Cash	$ 70,800	Liabilities	$ 66,600
Noncash assets	149,300		
		Contributed capital	110,000
		Retained earnings	43,500
		Total equity	153,500
Total assets	$220,100	Total liabilities and equity	$220,100

P2-47.(20 minutes)

a.

Operating activities		
Net income		$130,000
Adjustments to reconcile net income to operating cash flow		
Depreciation	$28,000	
Accounts receivable increase	(10,000)	
Prepaid expense decrease	3,000	
Accounts payable increase	6,000	
Wages payable decrease	(4,000)	23,000
Net cash provided from operating activities		$153,000

b. No, the positive sign on depreciation expense does not mean that Petroni Company is generating cash by recording depreciation. The depreciation add-back undoes the noncash depreciation expense that is included in the computation of net income. Cash is generated from sales and profitable operations and not from depreciation expense.

c. The increase in accounts receivable relates to sales on credit. Because Petroni Company uses GAAP, the company recognizes revenues when “earned,” even if no cash is received. These credit sales are included in net income even though no cash has been received from the sale. That means that net income is higher than cash from operations. Subtracting the increase in receivables offsets the noncash sales included in net income.

d. Prepaid expenses arise when a company pays out cash in advance of incurring the expense. An example is the payment for radio or TV advertising that is not aired in the current period. When paid, the company records the decrease in cash and also records an asset, prepaid advertising. When the ads are aired, the prepaid advertising account is reduced and an expense is recognized even though no cash was paid in the period the ads aired. The effect is that net income is lower (by the advertising expense) than cash from operations. To reconcile the two, the company needs to add back the decrease in the prepaid expense asset.

P2-48. (20 minutes)

a.

SUP 6,000
AP 6,000

SUP	
6,000	

AP	
	6,000

Cash 8,000
UR 8,000

Cash	
8,000	

UR	
	8,000

RNTE 3,000
PPRNT 3,000
Cash 6,000

RNTE	
3,000	

PPRNT	
3,000	

Cash	
	6,000

	Balance Sheet									Income Statement				
Transaction	**Cash Asset**	**+**	**Noncash Assets**	**=**	**Liabil-ities**	**+**	**Contrib. Capital**	**+**	**Earned Capital**	**Rev-enues**	**–**	**Expen-ses**	**=**	**Net Income**
Beginning bal.	30,000		225,000	=	90,000		45,000		120,000		–		=	
1. The company purchased $6,000 of supplies on credit			+6,000 Supplies	=	+6,000 Accounts Payable						–		=	
2. The company received $8,000 cash from a new customer for services to be performed next month	+8,000 Cash			=	+8,000 Unearned Revenues						–		=	
3. The company paid $6,000 cash to cover office rent for two months (the current month and the next)	-6,000 Cash		+3,000 Prepaid Rent	=					-3,000 Retained Earnings		–	+3,000 Rent Expense	=	-3,000

Continued next page

P2-48.continued

AR 25,000
REV 25,000

AR
25,000 |

REV
| 25,000

WE 6,000
Cash 6,000

WE
6,000 |

Cash
| 6,000

Cash 25,000
AR 25,000

Cash
25,000 |

AR
| 25,000

DE 4,000
PPE, net4,000

DE
4,000 |

PPE, net
| 4,000

	Balance Sheet									Income Statement				
Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expenses	=	Net Income
4. The company billed clients for $25,000 of work performed			+25,000 Accounts Receivable	=					+25,000 Retained Earnings	+25,000 Revenues	–		=	+25,000
5. The company paid employees $6,000 cash for work performed	-6,000 Cash			=					-6,000 Retained Earnings		–	+6,000 Wages Expense	=	-6,000
6. The company collected $25,000 cash from accounts receivable in *4*	+25,000 Cash		-25,000 Accounts Receivable	=							–		=	
7. The company recorded $4,000 depreciation on its equipment			-4,000 PPE, net	=					-4,000 Retained Earnings		–	+4,000 Depreciation Expense	=	-4,000

Continued next page

P2-48.continued

SUPE 4,000
SUP 4,000

SUPE

4,000	

SUP

	4,000

	Balance Sheet									Income Statement				
Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	–	Expenses	=	Net Income
8. At month-end, $2,000 of supplies purchased in *1* are still available; no supplies were available when the month began			-4,000 Supplies	=					-4,000 Retained Earnings		–	+4,000 Supplies Expense	=	-4,000
Ending balance	51,000		226,000	=	104,000		45,000		128,000	25,000	–	17,000	=	8,000

Continued next page

P2-48.concluded

b.

WERNER REALTY COMPANY
Income Statement
For Current Month

Sales revenue	$ 25,000
Total expenses	17,000
Net income	$ 8,000

WERNER REALTY COMPANY
Retained Earnings Reconciliation
For Current Month

Retained earnings, beginning of month	$120,000
Add: Net income	8,000
Less: Dividends	0
Retained earnings, end of month	$128,000

WERNER REALTY COMPANY
Balance Sheet
Current Month-End

Cash	$ 51,000	Liabilities	$104,000
Noncash assets	226,000		
		Contributed capital	45,000
		Retained earnings	128,000
		Total equity	173,000
Total assets	$277,000	Total liabilities and equity	$277,000

IFRS ASSIGNMENTS

I 2-49 (15 minutes)

a.

Income Statement	**Tesco February 23, 2013**		**Ahold December 30, 2012**	
	£millions	**%**	**€millions**	**%**
Sales	£64,826	100.0%	€32,841	100.0%
Cost of goods sold	60,737	93.7%	24,317	74.0%
Gross profit	4,089	6.3%	8,524	26.0%
Total expenses	3,969	6.1%	7,697	23.4%
Net income	£ 120	0.2%	€ 827	2.5%*

*percentages do not add due to rounding

Ahold's gross profit margin (26.0%) is over fourtimes that of Tesco (6.3%) due to their relatively low cost of goods sold. But the opposite pattern holds for the total expenses. This could indicate that the companies classify certain expenses differently – Tesco classifies more expenses as COGS.

b.

Balance Sheet	**Tesco February 23, 2013**		**Ahold December 30, 2012**	
	(£millions)	**%**	**(€millions)**	**%**
Current assets	£13,096	26.1%	€ 4,416	29.3%
Long-term assets	37,033	73.9%	10,666	70.7%
Total assets	£50,129	100.0%	€15,082	100.0%
Current liabilities	£18,985	37.9%	€ 4,427	29.4%
Long-term liabilities	14,483	28.9%	4,660	30.9%
Total liabilities	33,468	66.8%	9,087	60.3%
Stockholder's equity	16,661	33.2%	5,995	39.7%
Total liabilities and equity	£50,129	100.0%	€15,082	100.0%

c. Ahold has a greater proportion of stockholders' equity in its capital structure: 39.7% compared to Tesco's 33.2%. A greater proportion of debt is generally viewed as a riskier capital structure. So, on that basis, we would conclude that Tesco is the riskier company. That said, neither of these companies carries a large percentage of long-term debt. We would conclude that they are both very solvent.

I 2-50. (40 minutes)

a. Depreciation is added back to undo the effect it had on the income statement. AstraZeneca deducted $2,518 million of depreciation expense in computing net income. Depreciation is a noncash expense so AstraZeneca did not actually use $2,518 million of cash to pay depreciation expense. Thus, to determine how much cash was generated, net income is lower that cash from operations by the depreciation amount of $2,518 million. The depreciation add-back is NOT a source of cash as some mistakenly believe. Cash is generated by profitable operations, not by depreciation.

b. Revenue is recognized, and net profit increased, when it is earned, whether or not cash is received. Sales on account, therefore, increase profit and increase receivables. When cash is collected, the company does not record another sale. Thus, the decrease in receivables reflects the fact that cash increased but there was no effect on net income.

An increase in inventories means that purchases have exceeded goods sold for the period. Cash was used for these purchases and thus the statement of cash flows shows this as a negative.

The decrease in trade and other payables and provisions reflects payment for goods purchased in prior periods; the effect on cash is negative. This decreased cash but did not affect current income.

c. To grow and remain competitive, companies must continue to invest in their infrastructure. Capital expenditures (CAPEX) are necessary both for routine equipment replacements and for new additions. Depreciation expense represents the using up of depreciable assets. In general, we should expect CAPEX to exceed depreciation expense. This indicates that the company is growing its infrastructure as well as replacing the portion that is wearing out. This is not the case in 2012for Astra Zeneca; $672 million was used for new equipment whereas depreciation was $2,518 million. Some new equipment might have been purchased as part of the acquisitions (total $1,187 million) but even so, the total CAPEX is less than depreciation for the year.

d. AstraZeneca generated a significant amount of cash in 2012 and paid a hefty dividend. If AstraZeneca can make a better return on reinvesting its cash back into the business than the return shareholders can earn for themselves on the cash they would receive, AstraZeneca should forgo paying dividends. Many companies with large cash inflows, especially mature companies in relatively saturated markets, find it hard to uncover additional investment opportunities. In those cases, returning the cash to investors is better than investing it in marketable securities, because investors can do that for themselves.

e. AstraZeneca generated cash flows of $6,948 million from operating activities in 2012. The company had a net cash outflow from investing activities of $1,859 million. This outflow was due primarily to purchases of intangible assets $3,947 million and the acquisitions totaling $1,187 million. The company also had a net cash outflow from financing activities of $4,923 million from dividend payments and repurchases of stock. Cash increased slightly during the year from $7,434 million to $7,596 million.

MANAGEMENT APPLICATIONS

MA2-51. (25 minutes)

a. The cash conversion cycle is the number of days that pass from the time the company pays cash to purchase or manufacture inventory, sells the inventory and ultimately collects the accounts receivable. This period of time is reduced to the extent that suppliers finance a portion of the inventory purchase.

Receivables and inventories are costly to maintain. They must be financed (either with borrowed funds or by forgoing investment in other earning assets), collected (with some prospect of loss), stored, insured, and moved. By reducing the amount of investment in these assets, companies can reduce their expenses and their need for external capital.

b. A company might reduce its cash conversion cycle by reducing receivables and inventories and by increasing accounts payable.

1. Receivables – managers can reduce receivables by invoking more stringent credit-granting policies. Companies need appropriate policies to decide to whom to extend credit and in what dollar amount. As credit policies become more restrictive, the dollar amount of receivables declines. Managers can also implement more aggressive and or efficient collection practices
2. Inventories – for retailers, inventories are the cost of the goods purchased for resale. For manufacturers, inventory costs include raw materials, and additional labor and overhead costs to convert the goods into salable form. Reducing inventory levels will reduce the cash conversion cycle time. This can happen with more efficient buying (purchasing for actual orders rather than for estimated demand) and with leaner manufacturing processes.
3. Payables – lengthening the time to pay accounts payable ("leaning on the trade") reduces the cash conversion cycle time because less of the company's own capital is invested in receivables and inventories.

c. Each action described above has implications for the company's relations with customers and suppliers.

1. Receivables – receivables are a marketing tool, like advertising, product promotions and selling expenses. Tightening a company's credit policies can adversely affect sales. On the other hand, more restrictive credit policies can reduce collection costs, bad debt expense, and financing costs. Establishing a credit policy and collection procedures involves balancing the competing effects of lost sales with cost savings.
2. Inventories – reducing finished goods inventory levels increases the risk of stock-outs and could result in lost sales. The decision about what depth and breadth of finished goods inventories to carry is as much a marketing decision as it is a financial one. Further, the amount of raw materials and work-in-process inventories on hand affects production efficiency and has financial implications. Inventory management is a delicate process that must be handled with care to balance competing needs.

Continued next page

MA2-51.concluded

3. Payables – lengthening the time to pay accounts payable, while reducing the cash conversion cycle, may also damage relations with suppliers. One company's account payable is another's account receivable. There is a natural tension between two companies seeking to balance the period of time that the credit is outstanding. Although extending payables is favorable from a financial viewpoint, should supplier relations become strained, the company's ability to obtain additional products or services may be jeopardized. Policies relating to the payment of suppliers must be handled with care.

Working capital management is as much art as it is science. Companies must consider many constituencies in framing the appropriate policies.

MA2-52. (30 minutes)

The FASB has traditionally taken the position that accounting standards should reflect the diversity of business models by allowing discretion in their application. Revenue recognition and expense recording is a case in point.

a. Following are some pros and cons of drafting more restrictive accounting standards:

Pros:

1. "One size fits all" accounting standards simplify the accounting process and make the resulting financial statements easier to interpret.
2. Reducing the discretion available to accountants also reduces the temptation to manage the financial statements to achieve managers' self-serving objectives.
3. Simplifying accounting standards will reduce complexity of the audit process as well as potential litigation costs because the rules are clear.

Cons:

1. Businesses are too complex to use a "one size fits all" standard- setting philosophy. Unique transactions and corporate relations may not lend themselves to classification in a standardized accounting system.
2. Creating "bright line" accounting standards (e.g., standards with numerical guidelines that direct the appropriate accounting treatment, such as the rules regarding recognition of off-balance sheet entities) invites creative managers to structure their deals so as to meet the technical requirements of the standard while violating its intent.
3. Standardizing accounting rules reduces the value added by professional accountants.

Continued next page

MA2-52.concluded

b. The “end justifies the means” argument, frequently used in support of earnings management, is flawed on at least two fronts:

1. Earnings management is generally performed to “smooth” earnings fluctuations or to meet earnings targets. Typically the parties benefiting from this action are managers (because their compensation is contingent on meeting targets and because there will be less shareholder dissent when earnings targets are met) and investors long in the stock. Future investors, investors short in the stock, suppliers, lenders, and future employees may all be damaged as a result of the failure to provide timely and accurate financial information.

2. The argument implicitly assumes that managers are more capable of understanding financial reports than other market participants. To be sure, managers have access to information that is not available to the market, but managing financial results to filter what is seen, or not seen, by the market is not the answer. Rather, management should divulge more of its information in an unfiltered form and let the market make its own assessment.