LECTURE GUIDE SOLUTIONS – CHAPTER 4

The Accounting Cycle: Accruals and Deferrals

Example 1 – Prepaid Expenses (Supplies)
On October 5, the company paid $2,500 for advertising supplies. An inventory on October 31 reveals that $1,000 of the supplies remain on hand. Record the entry made on October 5 to record the purchase and prepare the October 31 adjusting entry to record the use of the supplies.

SOLUTION

October 5		
Supplies	2,500	
Cash		2,500
October 31		
Supplies expense	1,500	
Supplies		1,500

Example 2 – Prepaid Expenses (Insurance)
On October 4, the company paid $600 for a 1-year insurance policy. Coverage began October 1. Record the entry made on October 4 to record the payment and prepare the October 31 adjusting entry to record the use of the insurance.

SOLUTION

October 4		
Prepaid insurance	600	
Cash		600
October 31		
Insurance expense	50	
Prepaid insurance		50

Example 3 – Unearned Revenue
On October 2, the company received $1,200 for advertising services expected to be completed by December 31. Record the receipt of cash and the adjusting entry needed on October 31.

SOLUTION

October 2		
Cash	1,200	
Unearned service revenue		1,200
October 31		
Unearned service revenue	400	
Service revenue		400

Example 4 – Accrued Revenue
During October, the company earned $2,000 for advertising services, but did not send the bills until October 31. December 31. Record the adjusting entry needed on October 31.

SOLUTION

October 31		
Accounts receivable	2,000	
Service revenue		2,000

Example 5 – Accrued Interest
On October 1, the company borrowed $10,000 from Third National Bank. The bank is charging 6% interest. Record the loan and the adjusting entry needed on October 31.

SOLUTION

October 1		
Cash	10,000	
Notes payable		10,000
October 31		
Interest expense (10,000 × 6% × 1/12)	50	
Interest payable		50

Example 6 – Accrued Salaries
As of October 31, the company's employees had worked three days for which they had not yet been paid. Salaries amount to $500 per day. Record the adjusting entry needed on October 31.

SOLUTION

October 31		
Salaries expense	1,500	
Salaries payable		1,500

Example 7 – Depreciation
On October 1, the company purchased office equipment for $4,800. Record the purchase and depreciation for the month of October. The equipment has an estimated life of 10 years.

SOLUTION

October 1		
Office equipment	4,800	
Cash		4,800
October 31		
Depreciation expense ($4,800 ÷ 10 ÷ 12)	40	
Accumulated depreciation: office equipment		40

LECTURE GUIDE SOLUTIONS – CHAPTER 5

The Accounting Cycle: Reporting Financial Results

Our coverage of Chapter 5 involved an in-class project in which you prepared an income statement and statement of retained earnings, as well as end-of-year closing entries. To see the solutions to the in-class project, go to the Chapter 5 homework solutions and look for Exercises 5.2 and 5.4.

You also had two examples in Chapter 5 related to profitability measures and liquidity measures. Answers to these examples can be found below in the lecture guide solutions to Chapter 14.

Example 1 – Statement of Cash Flows (Exercise 13.7)
The accounting staff of Dakota Outfitters, Inc. has assembled the following information for the year ended December 31, 2003:

Cash and cash equivalents, January 1	$21,800	
Cash and cash equivalents, December 31	60,800	
Cash paid to acquire plant assets	21,000	I
Proceeds from short-term borrowing	10,000	F
Loans made to borrowers	5,000	I
Collections on loans (excluding interest)	4,000	I
Interest and dividends received	27,000	O
Cash received from customers	795,000	O
Proceeds from sales of plant assets	9,000	I
Dividends paid	55,000	F
Cash paid to suppliers and employees	635,000	O
Interest paid	19,000	O
Income taxes paid	71,000	O

Required:
a. Compute the change in cash and cash equivalents for the year.
b. Identify each item above according to the type of activity it is (operating, investing, or financing).
c. Prepare a statement of cash flows using the direct method.

SOLUTION

a.

Cash and cash equivalents, January 1	$21,800
Cash and cash equivalents, December 31	60,800
Increase in cash and CE	$39,000

b. Noted above in the body of the problem.

c.

DAKOTA OUTFITTERS, INC.
Statement of Cash Flows
For the Year Ended December 31, 2003

Cash flows from operating activities:		
Cash received from customers	$ 795,000	
Interest and dividends received	27,000	
Cash provided by operating activities		$ 822,000
Cash paid to suppliers and employees	$(635,000)	
Interest paid	(19,000)	
Income taxes paid	(71,000)	
Cash disbursed for operating activities		(725,000)
Net cash flow from operating activities		$ 97,000
Cash flows from investing activities:		
Loans made to borrowers	$ (5,000)	
Collections on loans	4,000	
Cash paid to acquire plant assets	(21,000)	
Proceeds from sales of plant assets	9,000	
Net cash used by investing activities		(13,000)

Cash flows from financing activities:		
Proceeds from short-term borrowing	$ 10,000	
Dividends paid	(55,000)	
Net cash used by financing activities		(45,000)
Net increase in cash and cash equivalents		$ 39,000
Cash and cash equivalents, beginning of year		21,800
Cash and cash equivalents, end of year		$ 60,800

Example 2 – Free Cash Flow
Calculate the free cash flow of Procter & Gamble for 2002 and 2001. How would you interpret the results?

SOLUTION
Refer to Chapter 14, Example 1 below.

Example 3 – Cash Flows from Operations to CL
Calculate the cash flows from operations to current liabilities of Procter & Gamble for 2002 and 2001. How would you interpret the results?

SOLUTION
Refer to Chapter 14, Example 1 below.

LECTURE GUIDE SOLUTIONS - CHAPTER 14

Financial Statement Analysis

Example 1 – Ratio Analysis

Using their 2002 annual report, calculate various measures to assess Procter & Gamble's profitability, liquidity, solvency, and current market price. Use the tables attached.

LECTURE GUIDE SOLUTIONS - CHAPTER 14

Financial Statement Analysis

Example 1 – Ratio Analysis

Ratio/measure	Formula	Year	Calculations	Answer	Industry	S&P
Profitability ratios						
Gross profit %	$\frac{\text{sales – CGS}}{\text{sales}}$	2002	$\frac{40{,}238-20{,}989=19{,}249}{40{,}238}$	47.8%	50.3%	46.9%
		2001	$\frac{39{,}244-22{,}102=17{,}142}{39{,}244}$	43.6%		
% change in sales	$\frac{\text{2002 sales - 2001 sales}}{\text{2001 sales}}$	2001 → 2002	$\frac{(40{,}238 - 39{,}244)}{39{,}244}$	2.5%	8.0%	8.8%
% change in GP	$\frac{\text{2002 GP- 2001 GP}}{\text{2001 GP}}$	2001 → 2002	$\frac{(19{,}249 - 17{,}142)}{17{,}142}$	12.3%		
% change in NI	$\frac{\text{2002 NI - 2001 NI}}{\text{2001 GP}}$	2001 → 2002	$\frac{(4{,}352 – 2{,}922)}{2{,}922}$	48.9%		
Profit margin	$\frac{\text{net income}}{\text{net sales}}$	2002	$\frac{4{,}352}{40{,}238}$	10.8%	11.1%	11.8%
		2001	$\frac{2{,}922}{39{,}244}$	7.4%		
Return on equity	$\frac{\text{net income}}{\text{average SE}}$	2002	$\frac{4{,}352}{(13{,}706 + 12{,}010)/2}$	33.8%	37.4%	17.5%
		2001	$\frac{2{,}922}{(12{,}010 + 12{,}287)/2}$	24.1		

Ratio/measure	Formula	Year	Calculations	Answer	Industry	S&P
Return on assets	net income / average total assets	2002	4,352 / (40,776 + 34,387)/2	11.6%	12.65%	5.96%
		2001	2,922 / (34,387 + 34,366)/2	8.5%		
Earnings per share	NI – pfd. dividends / ave. # common sh. O/S (taken from IS)	2002 2001 2000		3.26 2.15 2.61		
Liquidity measures						
Working capital	CA - CL	2002	12,166 – 12,704	(538)		
		2001	10,889 – 9,846	1,043		
Current ratio	current assets / current liabilities	2002	12,166 / 12,704	.96	1.3	1.8
		2001	10,889 / 9,846	1.1		
Quick ratio	quick assets / current liabilities	2002	3,427 + 196 + 3,090 / 12,704	.5	.7	1.3
		2001	2,306 + 212 + 2,931 / 9,846	.6		

Ratio/measure	Formula	Year	Calculations	Answer	Industry	S&P
AR turnover	net sales / average AR	2002	40,238 / (3,090 + 2,931)/2	13.37 times	11.37 times	9.75 times
		2001	39,244 / 2,931	13.39		
Ave. collection period	365 / AR turnover	2002	365 / 13.37	27 days	32 days	37 days
		2001	365 / 13.39	27 days		
Inventory turnover	CGS / average inventory	2002	20,989 / (3,456 + 3,384)/2	6.14 times	5.53 times	9.88 times
		2001	22,102 / 3,384	6.53 times		
Ave. days in inventory	365 / inventory turnover	2002	365 / 6.14	59 days	66 days	37 days
		2001	365 / 6.53	56 days		
Operating cycle	days to sell inventory + days to collect AR	2002	27 + 59 days	86 days	98 days	74 days
		2001	27 + 56 days	83 days		
Free cash flow	oper. cash flow – capital expend.-cash div.	2002	7,742 – 1,679 – 2,095	$3,968		
		2001	5,804 – 2,486 – 1,943	$1,375		

Ratio/measure	Formula	Year	Calculations	Answer	Industry	S&P
Cash flow from operations to CL	$\frac{\text{operating cash flow}}{\text{current liabilities}}$	2002	$\frac{7,742}{12,704}$	60.9%		
		2001	$\frac{5,804}{9,846}$	58.9%		
Solvency measures						
Debt ratio	$\frac{\text{total liabilities}}{\text{total assets}}$	2002	$\frac{27,070}{40,776}$	66.4%		
		2001	$\frac{22,377}{34,387}$	65.1%		
Debt to equity	$\frac{\text{total liabilities}}{\text{total SE}}$	2002	$\frac{27,070}{13,706}$	2.0	1.5	1.0
		2001	$\frac{22,377}{12,010}$	1.9		
Trend in cash provided by operating activities	taken from SCF	2002 2001 2000		7,742 5,804 4,675		
Interest coverage ratio	$\frac{\text{Operating income}}{\text{interest expense}}$	2002	$\frac{6,678}{603}$	11.1	16.9	12.2
		2001	$\frac{4,736}{794}$	6.0		

Ratio/measure	Formula	Year	Calculations	Answer	Industry	S&P
Measures for evaluating current market price						
P/E ratio	stock price/share / EPS	2002	90.875 / 3.26	27.9	24.4	24.8
		2001	77.65 / 2.15	36.1		
Dividend yield	annual dividend / stock price/share	2002	1.52 / 90.875	1.7%	1.8%	2.2%
		2001	1.40 / 77.65	1.8%		
Payout ratio	cash dividends (com.) / net income	2002	1,971 / 4,352	45.3%	38.5%	28.7%
		2001	1,822 / 2,922	62.4%		
Book value per share	common SE / # sh. common stk. O/S	2002	13,706 / 1,300.8	10.5		
		2001	12,010 / 1,295.7	9.3		