Question Book for Lecture Note 1

2.22 Transactions and the Statement of Cash Flows. Classify each transaction in the first three columns by its correct cash flow activity.

		Type of activity		
		Operating	Investing	Financing
(*a*)	Issued common stock for cash			
(*b*)	Purchased treasury stock			
(*c*)	Paid an account payable			
(*d*)	Declared a cash dividend			
(*e*)	Issued a bond payable			
(*f*)	Purchased land			
(*g*)	Sold a machine at book value			

SOLUTION

		Operating	Investing	Financing
(*a*)	Issued common stock for cash			X
(*b*)	Purchased treasury stock			X
(*c*)	Paid an account payable	X		
(*d*)	Declared a cash dividend			X
(*e*)	Issued a bond payable			X
(*f*)	Purchased land		X	
(*g*)	Sold a machine at book value		X	

2.23 Activity Classification. Classify each of the following transactions as an operating activity, an investing activity, or a financing activity. Also indicate whether the activity is a source of cash or a use of cash.

1. A plant was sold for $550,000.
2. A profit of $75,000 was reported.
3. Long-term bonds were retired.
4. Cash dividends of $420,000 were paid.
5. Four hundred thousand share of preferred stock were sold.
6. A new high-tech robotics was purchased.
7. A long-term note payable was issued.
8. A 50 percent interest in a company was purchased.
9. A loss for the year was reported.
10. Additional common stock was sold.

SOLUTION

1. Investing—source of cash
2. Operating—source of cash
3. Financing—use of cash
4. Financing—use of cash
5. Financing—source of cash
6. Investing—use of cash
7. Financing—source of cash
8. Investing—use of cash
9. Operating—use of cash
10. Financing—source of cash

2.25 Statement of Changes in Financial Position. The consolidated balance sheets for CSULB Seasonal Products, Inc., at the beginning and end of 20X1 are presented below (in millions of dollars).

	January 1, 20X1	December 31, 20X1
ASSETS		
Cash	$ 12	$ 9
Accounts receivable	14	24
Inventories	4	12
Total current assets	$ 30	$ 45
Gross fixed assets	$120	$145
Less: Accumulated depreciation	45	55
Net fixed assets	$ 75	$ 90
Total assets	$105	$135
LIABILITIES AND EQUITY		
Accounts payable	$ 14	$ 11
Notes payable	10	10
Long-term debt	10	25
Common stock	30	30
Retained earnings	41	59
Total liabilities and equity	$105	$135

CSULB earned $20 million after taxes during the year and paid cash dividends of $2 million. The annual depreciation expense during 20X1 was $10 million. The company purchased $25 million of fixed assets.

(*a*) Add source and use column to the balance sheet; (*b*) prepare a statement of changes in financial position on the cash basis, and include percentage computations; and (*c*) summarize your findings.

SOLUTION

(*a*)

CSULB Seasonal Products
Balance Sheet
(in Millions of Dollars)

	January 1, 20X1	December 31, 20X1	Source	Use
ASSETS				
Cash	$ 12	$ 9	$ 3	
Accounts receivables	14	24		$10
Inventories	4	12		8
Total current assets	$ 30	$ 45		
Gross fixed assets	$120	$145		25
Less: Accumulated depreciation	45	55	10	
Net fixed assets	$ 75	$ 90		
Total Assets	$105	$135		
LIABILITIES AND EQUITY				
Accounts payable	$ 14	$ 11		3
Notes payable	10	10		
Long-term debt	10	25	15	
Common stock	30	30		
Retained earnings	41	59	18	
Total liabilities and equity	$105	$135	$46	$46

(*b*)

CSULB Seasonal Products
Statement of Changes in Financial Position

	Millions of Dollars	Percentage of Total
Sources		
From operations		
Net income	$20	44.44%
Depreciation	10	22.22
Issuance of long-term debt	15	33.33
Total sources	$45	100.00%
Uses		
Pay cash dividends	$ 2	4.17%
Increase in accounts receivable	10	20.83
Increase in inventories	8	16.67
Decrease in accounts payable	3	6.25
Purchase of fixed assets	25	52.08
Total uses	$48	100.00%
Decrease in cash	$ 3	

(*c*) Most of CSULB's funds were obtained from operations (over 66 percent) along with a relatively large amount of long-term debt (about 33 percent). CSULB allocated these funds primarily to the purchase of fixed assets (52.08 percent), accounts receivable (20.83 percent), and inventories (16.67 percent). It is important to realize that the company does not have an optimal mix of financing since a relatively large portion of long-term debt went toward the purchase of short-term assets, namely accounts receivable and inventories. Furthermore, since the company's sales are seasonal, it could end up with rather costly excess cash on hand if the additional investment in inventories and accounts receivable is not needed.

2.26 Adjustments to Net Income. Indicate whether each of the events described below will be added to or deducted from net income in order to compute cash flow from operations.

1. Gain on sale of an asset
2. Increase in accounts receivable
3. Decrease in prepaid insurance
4. Depreciation expense
5. Increase in accounts payable
6. Uncollectible accounts expense
7. Decrease in wages payable
8. Increase in inventory
9. Amortization of a patent

SOLUTION

1. Deducted from
2. Deducted from
3. Added to
4. Added to
5. Added to
6. Added to
7. Deducted from
8. Deducted from
9. Added to

2.27 Statement of Cash Flows. Acme Manufacturing has provided the following financial statements:

Acme Manufacturing
Comparative Balance Sheets
For the years Ended December 31, 20X4 and 20X5

	20X4	**20X5**
ASSETS		
Cash	$ 112,500	$ 350,000
Accounts receivable	350,000	281,250
Inventories	125,000	150,000
Plant and equipment	1,000,000	1,025,000*
Accumulated depreciation	(500,000)	(525,000)
Land	500,000	718,750
Total assets	$1,587,500	$2,000,000

* Beginning equipment	$1,000,000
Purchases	250,000
Less sales	(225,000)
Ending equipment	$1,025,000

LIABILITIES AND EQUITY		
Accounts Payable	$ 300,000	$ 237,500
Mortgage payable	–	250,000
Common Stock	75,000	75,000
Contributed capital in excess of par	300,000	300,000
Retained earnings	912,500	1,137,500
Total liabilities and equity	$1,587,500	$2,000,000

Income Statement
For the years Ended December 31, 20X5

Revenues	$1,200,000
Gain on sale of equipment	50,000
Less: Cost of goods sold	(640,000)
Less: Depreciation expense	(125,000)
Less: Interest expense	(35,000)
Net income	$ 450,000

Other information:

(*a*) Equipment with a book value of $125,000 was sold for $175,000 (original cost was $225,000).

(*b*) Dividends of $225,000 were declared and paid.

Prepare a statement of cash flows.

SOLUTION

Acme Manufacturing
Statement of Cash Flows
For the Year Ended December 31, 20X5

CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$450,000	
Add (deduct) adjusting items:		
Gain on sale of equipment	(50,000)	
Decrease in accounts receivable	68,750	
Increase in inventory	(25,000)	
Depreciation expense	125,000	
Decrease in accounts payable	(62,500)	
Net Operating Cash		$506,250
CASH FLOWS FROM INVESTING ACTIVITIES:		
Sale of equipment	$175,000	
Purchase of equipment	(250,000)	
Purchase of land	(218,750)	
Net cash from investing activities		(293,750)

CASH FLOWS FROM FINANCING ACTIVITIES:		
Mortgage received	$250,000	
Dividends	(225,000)	
Net cash from financing activities		25,000
Net increase in cash		$237,500

2.28 Financial Analysis. Motel Enterprises operates and owns many motels throughout the United States. The company has expanded rapidly over the past few years, and company officers are concerned that they may have overexpanded.

The following financial statements have been supplied by the controller of Motel Enterprises.

Motel Enterprises Income Statement
(in Thousands of Dollars)
For the Years Ending October 31, 20X1 and 20X2
(Unaudited)

	20X1	**20X2**
Revenue	$1,920	$2,230
Cost and expenses		
Direct room and related services	$ 350	$ 400
Direct food and beverage	640	470
General and administrative	250	302
Advertising	44	57
Repairs and maintenance	82	106
Interest expense	220	280
Depreciation	95	120
Lease payment	73	100
Total costs and expenses	$1,754	$2,105
Income before taxes	$ 166	$ 125
Provision for income tax	42	25
Net income	$ 124	$ 100

Motel Enterprises Balance Sheet
(for Thousands of Dollars)
As of October 31, 20X1 and 20X2
(Unaudited)

	20X1	**20X2**
ASSETS		
Current assets		
Cash	$ 125	$ 100
Accounts receivable (net)	200	250
Inventory	50	60
Other	5	5
Total current assets	$ 380	$ 415
Long-term assets	$ 710	$ 605
Property and equipment		
Building and equipment (net)	$2,540	$3,350

Land	410	370
Construction in progress	450	150
Total property and equipment	$3,400	$3,870
Other assets	$ 110	$ 110
Total assets	$4,600	$5,000
LIABILITIES AND STOCKHOLDERS' EQUITY		
Liabilities		
Current liabilities		
Accounts payable	$30	$ 40
Accrued liabilities	190	190
Notes payable to bank	10	30
Current portion of long-term notes	50	80
Total current liabilities	$ 280	$ 340
Long-term debt		
Long-term notes	$2,325	$2,785
Subordinated debentures	800	800
Total long-term debt	$3,125	$3,585
Total liabilities	$3,405	$3,925
Stockholders' equity		
Common stock ($1 par)	$ 300	$ 300
Paid-in capital in excess of par	730	730
Net unrealized loss on long-term investments		(105)
Retained earnings	165	150
Total stockholders' equity	$1,195	$1,075
Total liabilities and stockholders' equity	$4,600	$5,000

(*a*) Compute the following ratios for 20X1 and 20X2: (1) debt/equity ratio; (2) times interest earned; (3) return on total assets; (4) current ratio; (5) return on common stock equity; and (6) accounts receivable turnover.

(*b*) Evaluate the financial condition based on the trend analysis. (CMA, adapted.)

SOLUTION

(*a*) 1.

$$\text{Debt/equity ratio} = \frac{\text{total liabilities}}{\text{stockholders' equity}}$$

For 20X1: $$\frac{\$3,405}{\$1,075} = 3.17$$

For 20X2: $$\frac{\$3,925}{\$1,195} = 3.28$$

2.

$$\text{Times interest earned} = \frac{\text{EBIT}}{\text{interest expense}}$$

For 20X1: $$\frac{\$386}{\$220} = 1.75$$

For 20X2: $$\frac{\$405}{\$280} = 1.45$$

3. $$\text{Return on total assets} = \frac{\text{net income}}{\text{average total assets}}$$

For 20X1: $$\frac{\$124}{\$4{,}600} = 2.7\%$$

For 20X2: $$\frac{\$100}{(\$4{,}600 + \$5{,}000)/2} = 2.1\%$$

4. $$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilties}}$$

For 20X1: $$\frac{\$380}{\$280} = 1.36$$

For 20X2: $$\frac{\$415}{\$340} = 1.22$$

5. $$\text{Return on common stock equity} = \frac{\text{earnings available to common stockholders}}{\text{average stockholders' equity}}$$

For 20X1 estimated: $$\frac{\$124}{\$1{,}195} = 10.4\%$$

For 20X2: $$\frac{\$100}{(\$1{,}195 + \$1{,}075)/2} = 8.8\%$$

6. $$\text{Accounts receivable turnover} = \frac{\text{net credit sales}}{\text{average accounts receivable}}$$

For 20X1 estimated: $$\frac{\$1{,}920}{\$200} = 9.6 \text{ (every 38 days)}$$

For 20X2: $$\frac{\$2{,}230}{(\$200 + \$250)/2} = 9.91 \text{ (every 37 days)}$$

(*b*) Based on the trend analysis for 20X1 and 20X2, the company's financial condition has deteriorated to some degree in this period, and there is going to be a serious liquidity problem as is evidenced by the decline in the current ratio and the decline of net working capital.

In addition, the company's interest coverage has declined and large amounts of debt are coming due in the near future. The statement of changes in financial position shows that a large portion of capital expenditures were financed through long-term debt.