Spreadsheet Templates

Foundations of Financial Management

MAIN MENU - CHAPTER 2

Problem 2-6 **Problem 2-13** **Problem 2-15**

Problem 2-29

Spreadsheet templates by Block, Hirt, and Short - Eighth Canadian Edition

Foundations of Financial Management

Block, Hirt, and Short: Eighth Canadian Edition

Problem 2-6
Determine profitability.

Student Name:	
Course Name:	
Student ID:	
Course Number:	

The Censored Book Company sold 1,200 finance textbooks to Arctic College for $60 each in 2009. These books cost $42 to produce. In addition, Censored Books spent $2,000 (selling expense) to persuade the college to buy its books. Censored Books borrowed $30,000 on January 1, 2009, on which it paid 10 percent interest. Both interest and principal were paid on December 31, 2009. Censored Books' tax rate is 30 percent. Amortization expense for the year was $4,000.

Did Censored Books make a profit in 2009? Verify your answer with an income statement presented in good form.

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Problem 2-11
Prepare balance sheet

Student Name:	
Course Name:	
Student ID:	
Course Number:	

Arrange the following items in proper balance sheet presentation.

Accumulated amortization	$300,000
Retained earnings	96,000
Cash	10,000
Bonds payable	136,000
Accounts receivable	48,000
Plant and equipment - original cost	680,000
Accounts payable	35,000
Allowance for bad debts	6,000
Common stock, 100,000 shares outstanding	188,000
Inventory	66,000
Preferred stock, 1,000 shares outstanding	50,000
Marketable securities	20,000
Investments	20,000
Notes payable	33,000

Solution

Problem 2-11
Instructions
In the solution area below, arrange the following items in proper balance sheet presentation.

Balance Sheet
Assets

Current Assets:		
Cash		$10,000
Marketable securities		20,000
Accounts receivable	$48,000	
Less: Allowance for bad debts	6,000	42,000
Inventory		66,000
Total Current Assets		138,000
Other Assets:		
Investments		20,000
Capital Assets		
Plant and equipment	680,000	
Less: Accumulated amortization	300,000	
Net plant and equipment		380,000
Total Assets		$538,000

Liabilities and Shareholders' Equity

Current Liabilities	
Accounts payable	$35,000
Notes payable	33,000
Total current liabilities	68,000
Long-term Liabilities	
Bonds payable	136,000
Total Liabilities	204,000
Shareholders' Equity	
Preferred stock, 1,000 shares outstanding	50,000
Common stock, 100,000 shares outstanding	188,000
Retained earnings	96,000
Total shareholders' equity	334,000
Total liabilities and shareholders' equity	$538,000

Foundations of Financial Management

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Problem 2-15
Calculate Book value and P/E Ratio

Student Name:	
Course Name:	
Student ID:	
Course Number:	

The Holtzman Corporation has assets of $400,000, current liabilities of $50,000, and long-term liabilities of $100,000. There is $40,000 in preferred stock outstanding; 20,000 shares of common stock have been issued.

a. Compute book value (net worth) per share.

b. If there is $22,000 in earnings available to common shareholders and Holtzman's stock has a P/E ratio of 15 times earnings per share, what is the current price of the stock?

c. What is the ratio of market value per share to book value per share?

Solution

Problem 2-15
Instructions

Use the following facts to solve the problem.

Assets	$400,000
Current liabilities	50,000
Long-term liabilities	100,000
Preferred stock	40,000
Shares of common	20,000

a. Compute book value (net worth) per share.

Total Assets	$400,000
Current liabilities	50,000
Long-term liabilities	100,000
Shareholders' equity	250,000
Preferred stock	40,000
Net worth assigned to common	$210,000
Common shares outstanding	20,000
Book value (net worth) per share	$10.50

b. If there is $22,000 in earnings available to common shareholders and Holtzman's stock has a P/E ratio of 15 times earnings per share, what is the current price of the stock?

Earnings available to common	$22,000
Shares outstanding	20,000
Earnings per share	$1.10

Current Price

P/E Ratio	15
Earnings per share	$1.10
Current Price	$16.50

c. What is the ratio of market value per share to book value per share?

Market share per share	$16.50
Book value per share	$10.50
Ratio of market value to book value	1.57

Foundations of Financial Management

Block, Hirt, and Short: Eighth Canadian Edition

Problem 2-29

Prepare income statement and balance sheet.

Student Name:	
Course Name:	
Student ID:	
Course Number:	

For December 31, 2008, the balance sheet of the Dominion Pines Corporation is as follows:

Current Assets		**Liabilities**	
Cash	$15,000	Accounts payable	$20,000
Accounts receivable	22,500	Notes payable	30,000
Inventory	37,500	Bonds payable	75,000
Prepaid expenses	18,000		
Capital Assets		**Shareholders' Equity**	
Plant and equipment	375,000	Common stock	150,000
Less: Accumulated amortization	75,000	Retained earnings	118,000
Net plant and equipment	300,000	Total shareholders' equity	268,000
Total assets	$393,000	Total liabilities and shareholders' equity	$393,000

Sales for 2009 were $330,000, with cost of goods sold being 60 percent of sales. Amortization expense was 10 percent of plant and equipment (gross) at the beginning of the year. Interest expense for the bonds payable was 12 percent, while interest on the notes payable was 10 percent. These are based on December 31, 2008, balances. Selling and administrative expenses were $33,000, and the tax rate averaged 20 percent.

During 2009, the cash balance and prepaid expense balance were unchanged. Accounts receivable and inventory each increased by 20 percent, and accounts payable increased by 30 percent. A new machine was purchased on December 31, 2009, at a cost of $60,000. A cash dividend of $6,100 was paid to common shareholders at the end of 2009. Also, notes payable increased by $10,000 and bonds payable decreased by $15,000. The common stock account did not change.

a. Prepare an income statement for 2009.
b. Prepare a balance sheet as of December 31, 2009.
c. Prepare a statement of cash flows for the year ending December 31, 2009.

Solution

Problem 2-29

Instructions

Use the templates below to meet the requirements of the problem.

a. Prepare an income statement for the year 2009.

Key Facts:

Sales	$330,000	
Cost of goods sold	60%	of sales
Amortization expense	10%	of plant and equipment (gross)
Note payable interest	10%	
Bond payable interest	12%	
Selling and administrative expense	33,000	
Tax rate	20%	
Cash dividend paid	$6,100	
Change in cash balance	-	
Change in prepaid expense balance	-	
Increase in accounts receivable	20%	
Increase in inventory	20%	
Increase in accounts payable	30%	
Cost of additional machine	60,000	
Increase in notes payable	10,000	
Decrease in bonds payable	(15,000)	

Dominion Pines Corporation
Income Statement
for the year ended December 31, 2009

Sales		$330,000
Cost of goods sold		198,000
Gross profit		132,000
Selling and administrative expense		33,000
Amortization expense		37,500
Operating profit (EBIT)		61,500
Interest expense		
Interest expense on bonds	$9,000	
Interest expense on notes	3,000	12,000
Earnings before taxes		49,500
Taxes		9,900
Earnings aftertaxes (EAT)		39,600
Common stock dividends		6,100
Change in Retained Earnings		$33,500

b. Prepare a balance sheet as of December 31, 2009.

Dominion Pines Corporation
Balance Sheet as of December 31, 2009

Current Assets		**Liabilities**	
Cash	$15,000	Accounts payable	$26,000
Accounts receivable	27,000	Notes payable	40,000
Inventory	45,000	Bonds payable	60,000
Prepaid expenses	18,000		
Total current assets	105,000	Total Liabilities	126,000
Capital Assets			
Gross plant and equipment	435,000	**Shareholders' Equity**	
Less: Accumulated amortization	112,500	Common stock	150,000
Net plant and equipment	322,500	Retained earnings	151,500
Total Assets	$427,500	Total Liabilities and Equity	427,500

c. Prepare a statement of cash flows for the year ending December 31, 2009.

Dominion Pines Corporation
Statement of Cash Flows
For the Year Ended December 31, 2009

Operating Activities:		
Net Income (earnings aftertaxes)		$39,600
Add items not requiring an outlay of cash:		
Amortization	$ 37,500	
Cash flow from operations		77,100
Changes in non-cash working capital:		
Increase in accounts receivable	(4,500)	
Increase in inventory	(7,500)	
Increase in accounts payable	6,000	
Increase in notes payable	10,000	
Net change in non-cash working capital		4,000
Cash provided by operating activities		81,100
Investing Activities:		
Increase in plant and equipment	(60,000)	
Cash used in investing activities		(60,000)
Financing Activities:		
Decrease in bonds payable	(15,000)	
Common stock dividends paid	(6,100)	
Cash used in financing activities		(21,100)
Net increase in cash during the year		-
Cash, at beginning of year		15,000
Cash, end of year		$15,000

d. Identify the major accounts contributing to the change in cash position, from the three different components of the cash flow statement.

Major accounts are net income ($39,600) and amortization ($37,500) contributing positive cash flow. This positive cash flow is offset by an increase in plant and equipment ($60,000), payments on bonds ($15,000) and dividends paid ($6,100)

Chapter 2

Discussion Questions

2-1. The price-earnings ratio will be influenced by the earnings and sales growth of the firm, the risk or volatility in performance, the debt-equity structure of the firm, the dividend payment policy, the quality of management, and a number of other factors. The ratio tends to be future-oriented, and will be higher the more positive the outlook

2-2. Book value per share is arrived at by taking the cost of the assets and subtracting out liabilities and preferred stock and dividing by the number of common shares outstanding. It is based on the historical costs of the assets. Market value per share is based on current assessed value of the firm in the marketplace and may bear little relationship to original cost. Besides the disparity between book and market value caused by the historical cost approach, other contributing factors are the growth prospects for the firm, the quality of management, and the industry outlook. To the extent these are quite negative, or positive, market value may differ widely from book value.

2-3. The only way amortization generates cash flows for the company is by serving as a tax shield against reported income. Allowable amortization for tax purposes is known as capital cost allowance (CCA). In most instances this will be different than accounting amortization. This non-cash deduction may provide cash flow equal to the tax rate times the amortization charged. This much in taxes will be saved, while no cash payments occur.

2-4. Accumulated amortization is the sum of all past and present amortization charges, while amortization expense is the current year's charge. They are related in that the sum of all prior amortization expense should be equal to accumulated amortization (subject to some differential related to asset write-offs).

2-5. The balance sheet is based on historical costs. When prices are rising rapidly, historical cost data may lose much of their meaning - particularly for plant and equipment and inventory.

2-6. The income statement and balance sheet are based on the accrual method of accounting, which attempts to match revenues and expenses in the period in which they occur. However, accrual accounting does not attempt to properly assess the cash flow position of the firm. The statement of changes in financial position fulfills this need.

2-7. The sections of the statement of cash flows are:

Cash flows from operating activities
Cash flows from investing activities
Cash flows from financing activities

The payment of cash dividends falls into the financing activities category.

2-8. We can examine the various sources that were utilized by the firm as indicated on the statement. Possible sources for the financing of an increase in assets might be profits, increases in liabilities, or decreases in other asset accounts.

2-9. Free cash flow is equal to cash flow from operating activities:

Minus: Capital expenditures required to maintain the productive capacity of the firm.

Minus: Dividends (required to maintain the payout on common stock and to cover any preferred stock obligation).

The analyst or banker normally looks at free cash flow to determine whether there are sufficient excess funds to pay back the loan associated with the leveraged buy-out.

2-10. Interest expense is a tax deductible item to the corporation, while dividend payments are not. The net cost to the corporation of interest expense is the amount paid multiplied by the difference of (one minus the applicable tax rate). The firm must bear the full burden of the cost of dividend payments.

Internet Resources and Questions

1. www.cica.ca/index.cfm/ci_id/12/la_id/1.htm
2. www.acsbcanada.org/index.cfm/ci_id/197/la_id/1.htm
3. www.iasb.org
4. www.iasb.org/About+Us/About+the+IASB/IFRSs+around+the+world.htm

Problems

2-1. **Dental Drilling Company**
Income Statement

Sales..	$400,000
Cost of goods sold..	150,000
Gross Profit..	250,000
Selling and administrative expense........................	50,000
Amortization expense...	80,000
Operating profit...	120,000
Interest expense..	30,000
Earnings before taxes...	90,000
Taxes..	19,800
Earnings after taxes...	**$ 70,200**

2-2. **4U Cards Ltd.**
Income Statement

Sales……………………………………………………	$800,000
Cost of goods sold………………………………..	300,000
Gross profit…………………………………..…..	500,000
Selling and administration expense……………….	40,000
Amortization expense……………………………..	30,000
Operating profit………………………………..	430,000
Interest expense……………………………………	20,000
Earnings before taxes…………………………..	410,000
Taxes ………………………………………………..	110,000
Earnings after taxes…………………………..	300,000
Preferred stock dividends…………………………	80,000
Earnings available to common shareholders……..	$220,000
Shares outstanding………………………………..	100,000
Earnings per share………………………………..	**$2.20**

2-3. **Frantic Fast Foods**

a. **2008**

Earnings after taxes	$390,000
Shares outstanding	300,000
Earnings per share	**$1.30**

b. **2009**

Earnings after taxes ($390,000 × 120%)	$468,000
Shares outstanding	325,000
Earnings per share	**$1.44**

2-4. Bettis Bus Company

a. **2008**

Earnings after taxes	$600,000
Shares outstanding	300,000
Earnings per share	**$2.00**

b. **2009**

Earnings after taxes ($600,000 × 125%)	$750,000
Shares outstanding (300,000 + 40,000)	340,000
Earnings per share	**$2.21**

2-5. Brad Gravel Pitt Company

a.

Sales	$327,000
Cost of goods sold	135,000
Gross profit	192,000

$$\text{Gross profit (\%)} = \frac{\text{Gross profit}}{\text{Sales}} = \frac{\$192{,}000}{\$327{,}000} = .59 = 59\%$$

b. With a gross profit of 59%, Brad Gravel Pitt Company is outperforming the industry average of 52%.

2-6. Censored Book Company

Income Statement

For the Year ended December 31, 2009

Sales (1,200 books at $60 each)	$72,000
Cost of goods sold (1,200 books at $42 each)	50,400
Gross Profit	21,600
Selling expense	2,000
Amortization expense	4,000
Operating profit	15,600
Interest expense	3,000
Earnings before taxes	12,600
Taxes @ 30%	3,780
Earnings after taxes	**$ 8,820**

2-7. **Lemon Auto Wholesalers**
Income Statement

a.

Sales……………………………………………..	$700,000
Cost of goods sold @ 70%................................	490,000
Gross profit…………………………………..	210,000
Selling and administration expense @ 12%.........	84,000
Amortization expense…………………………...	10,000
Operating profit………………………………	116,000
Interest expense…………………………………	8,000
Earnings before taxes…………………………	108,000
Taxes @ 30%...	32,400
Earnings after taxes…………………………	**$ 75,600**

b.

Sales……………………………………………..	$750,000
Cost of goods sold @ 66%.................................	495,000
Gross profit…………………………………...	255,000
Selling and administration expense @ 14%.........	105,000
Amortization expense…………………………..	10,000
Operating profit………………………………	140,000
Interest expense…………………………………	15,000
Earnings before taxes…………………………	125,000
Taxes @ 30% ……………………………………	37,500
Earnings after taxes……………………………	**$ 87,500**

Ms. Fender's idea will increase profitability.

2-8. Sales

Cost of goods sold

Gross profit

Selling and administrative expense

Amortization expense

Operating profit

Interest expense

Earnings before taxes

Taxes

Earnings aftertaxes

Preferred stock dividends

Earnings available to common shareholders

Shares outstanding

Earnings per share

2-9. Dog River Company

a. Operating profit (EBIT)........................	$200,000
Interest expense................................	10,000
Earnings before taxes (EBT).................	190,000
Taxes...	61,250
Earnings aftertaxes (EAT)......................	128,750
Preferred dividends	18,750
Available to common shareholders........	$110,000
Common dividends...........................	$ 30,000
Increase in retained earnings.................	$ 80,000

$$\text{Earnings per Share} = \frac{\text{Earnings available to common shareholders}}{\text{Number of shares of common stock outstanding}}$$

= $110,000/20,000 shares

= **$5.50 per share**

Dividends per Share = $30,000/20,000 shares

= **$1.50 per share**

b. Increase in retained earnings = $80,000

c. Price/earnings ratio = $26.40/ $5.50

= **4.8** ×

2-10. Johnson Alarm Systems

a. Retained earnings, December 31, 2009............	$800,000
Less: Retained earnings, December 31, 2008....	640,000
Change in retained earnings..............................	160,000
Add: Common stock dividends.........................	60,000
Earnings available to common shareholders......	$220,000

b. Earnings per share = $220,000/ 50,000 shares

= **$4.40 per share**

c. Price/earnings ratio = $13.20/ $4.40

= **3** ×

2-11. **Oka Snack Delights, Inc.**

a. Operating profit (EBIT)........................	$210,000
Interest expense................................	30,000
Earnings before taxes (EBT).................	180,000
Taxes..	59,300
Earnings aftertaxes (EAT).....................	120,700
Preferred dividends	24,700
Available to common shareholders........	$ 96,000
Common dividends...........................	$ 36,000
Increase in retained earnings.................	$ 60,000

$$\text{Earnings per Share} = \frac{\text{Earnings available to common shareholders}}{\text{Number of shares of common stock outstanding}}$$

= $96,000/16,000 shares

= **$6.00 per share**

Dividends per Share = $36,000/16,000 shares = **$2.25 per share**

b. Increase in retained earnings = $60,000

2-12. Common stock – noncurrent
Accounts payable – current
Preferred stock – noncurrent
Prepaid expenses – current
Bonds payable – noncurrent
Inventory – current
Investments – noncurrent
Marketable securities – current
Accounts receivable – current
Plant and equipment – noncurrent
Accrued wages payable – current
Retained earnings – noncurrent

2-13. **Assets**

Current Assets:		
Cash..		$ 10,000
Marketable securities........................		20,000
Accounts receivable..........................	$48,000	
Less: Allowance for bad debts......	6,000	
		42,000
Inventory..		66,000
Total Current Assets................		138,000
Other Assets:		
Investments......................................		20,000
Capital Assets:		
Plant and equipment.........................	680,000	
Less: Accumulated amortization..	300,000	
Net plant and equipment..................		380,000
Total Assets..		$538,000

Liabilities and Shareholders' Equity

Current Liabilities:	
Accounts payable.............................	$ 35,000
Notes payable..................................	33,000
Total current Liabilities...............	68,000
Long-Term Liabilities...........................	
Bonds payable.................................	136,000
Total Liabilities...........................	204,000
Shareholders' Equity:	
Preferred stock, 1,000 shares outstanding….....	50,000
Common stock, 100,000 shares outstanding....	188,000
Retained earnings..	96,000
Total Shareholders' Equity..........................	334,000
Total Liabilities and Shareholders' Equity…….....	$538,000

2-14. **Landers Nursery and Garden Stores**

Current assets……………………..	$220,000
Capital assets………………………	170,000
Total assets………………………..	390,000
– Current liabilities………………..	80,000
– Long-term liabilities……………..	140,000
Shareholders' equity……………….	170,000
– Preferred stock obligation………..	40,000
Net worth assigned to common……	$130,000
Common shares outstanding………	25,000
Book value (net worth) per share…	**$5.20**

2-15. **Holtzman Corporation**

a. Total assets.....................................	$400,000
– Current liabilities........................	50,000
– Long-term liabilities..................	100,000
Shareholders' equity.......................	250,000
– Preferred stock............................	40,000
Net worth assigned to common.......	$210,000
Common shares outstanding…..........	20,000
Book value (net worth) per share….....	$10.50
b. Earnings available to common.........	$22,000
Shares outstanding..........................	20,000
Earnings per share...........................	**$1.10**

P/E ratio × earnings per share = price

15 × $1.10 = **$16.50**

c. Market value per share (price) to book value per share

$16.50/$10.50 = **1.57**

2-16. Bradley Gypsum Company

a. Total assets....................................	$1,900,000
– Current liabilities.........................	700,000
– Long-term liabilities....................	580,000
Shareholders' equity........................	620,000
– Preferred stock.............................	170,000
Net worth assigned to common.......	$ 450,000
Common shares outstanding…..............	30,000
Book value (net worth) per share….....	**$15.00**
b. Earnings available to common.........	$42,000
Shares outstanding...........................	30,000
Earnings per share............................	**$1.40**

P/E ratio × earnings per share = price
15 × $1.40 = **$21.00**

c. Market value per share (price) to book value per share
$21.00/$15.00 = **1.4**

2-17. Bradley Gypsum Company (Continued)

2 × book value = price
2 × $15.00 = $30.00
P/E ratio = $30.00/$1.40
= **21.43**

2-18. 1. Balance Sheet (BS)
2. Income Statement (IS)
3. Current Assets (CA)
4. Capital Assets (Cap A)
5. Current Liabilities (CL)
6. Long-Term Liabilities (LL)
7. Shareholders Equity (SE)

Indicate Whether the Item is on Balance Sheet or Income Statement	***If the Item is on Balance Sheet, Designate Which Category***	***Item***
BS	SE	Retained earnings
IS		Income tax expense
BS	CA	Accounts receivable
BS	SE	Common stock
BS	LL	Bonds payable maturity 2012
BS	CL	Notes payable (6 months)
IS		Net income (EAT)
IS		Selling and adm. expenses
BS	CA	Inventories
BS	CL	Accrued expenses
BS	CA	Cash
BS	Cap A	Plant and equipment
IS		Sales
IS		Operating expenses
BS	CA	Marketable securities
BS	CL	Accounts payable
IS		Interest expense
BS	CL	Income tax payable

2-19. Increase in inventory -- decreases cash flow (use)
Decrease in prepaid expenses -- increases cash flow (source)
Decrease in accounts receivable -- increases cash flow (source)
Increase in cash -- increases cash flow (source)
Decrease in inventory -- increases cash flow (source)
Dividend payment -- decreases cash flow (use)
Increase in short-term notes payable -- increases cash flow (source)
Amortization expense – does not affect cash flow
Decrease in accounts payable -- decreases cash flow (use)
Increase in long-term investments -- decreases cash flow (use)

2-20. Rogers Corporation – Evans Corporation

	Rogers	Evans
Gross profit........................	$880,000	$880,000
Selling and adm. expense...	120,000	120,000
Amortization......................	360,000	60,000
Operating profit.................	400,000	700,000
Taxes (40%).......................	160,000	280,000
Earnings aftertaxes.............	240,000	420,000
Plus amortization expense...	360,000	60,000
Cash Flow..........................	**$600,000**	**$480,000**

Rogers had $300,000 (operating profit difference) more in amortization, which provided $120,000 (0.40 × $300,000) more in cash flow. Rogers paid .4×300,000 = $120,000 less taxes.

2-21. **Solitude Corporation**

Statement of Cash Flows

For the Year Ended December 31, 2009

Operating activities:		
Net income (earnings aftertaxes)...............		$ 73,800
Add items not requiring an outlay of cash:		
Amortization................................	$ 11,070	11,070
Cash flow from operations		84,870
Changes in non-cash working capital:		
Decrease in accounts receivable....	7,380	
Increase in inventory....................	(22,140)	
Increase in accounts payable.........	25,830	
Increase in taxes payable...............	(7,380)	
Net change in non-cash working capital....		3,690
Cash provided by operating activities........		88,560
Investing activities:		
Increase in plant and equipment...........	(25,830)	
Cash used in investing activities................		(25,830)
Financing activities:		
Issue of common stock	22,140	
Common stock dividends paid.............	(36,900)	
Cash used in financing activities………...		(14,760)
Net increase in cash (equivalents) during the year..		$ 47,970
Cash, beginning of year……….		29,520
Cash, end of year……………...		$ 77,490

2-22. **Waif Corporation**

Statement of Cash Flows
For the Year Ended December 31, 2009

Operating activities:		
Net income (earnings aftertaxes)...............		$ 91,000
Add items not requiring an outlay of cash:		
Amortization.................................	$ 22,000	22,000
Cash flow from operations		113,000
Changes in non-cash working capital:		
Increase in accounts receivable....	(12,600)	
Decrease in inventory.....................	7,100	
Decrease in accounts payable.........	(10,000)	
Net change in non-cash working capital....		(15,500)
Cash provided by operating activities........		97,500
Investing activities:		
Increase in plant and equipment...........	(48,000)	
Sale of land……………………………	27,000	
Cash used in investing activities...............		(21,000)
Financing activities:		
Retirement of bonds payable..............	(40,000)	
Issue of common stock.......................	40,000	
Common stock dividends paid………	(39,400)	
Cash used in financing activities………...		(39,400)
Net increase in cash (equivalents) during the year		37,100
Cash, beginning of year……….		17,400
Cash, end of year……………...		$ 54,500

2-23. **Crosby Corporation**

Statement of Cash Flows

For the Year Ended December 31, 2009

Operating activities:		
Net income (earnings aftertaxes)................		$160,000
Add items not requiring an outlay of cash:		
Amortization..............................	$ 150,000	150,000
Cash flow from operations		310,000
Increase in accounts receivable..	(50,000)	
Increase in inventory.................	(20,000)	
Decrease in prepaid expenses....	20,000	
Increase in accounts payable.....	190,000	
Decrease in accrued expenses...	(20,000)	
Net change in non-cash working capital.....		120,000
Cash provided by operating activities.........		430,000
Investing activities:		
Decrease in investments....................	10,000	
Increase in plant and equipment.........	(400,000)	
Cash used in investing activities................		(390,000)
Financing activities:		
Increase in bonds payable	50,000	
Preferred stock dividends paid...........	(10,000)	
Common stock dividends paid...........	(50,000)	
Cash used in financing activities………..		(10,000)
Net increase (decrease) in cash		30,000
Cash, at beginning of year		70,000
Cash, end of year		$100,000

2-24. Cash flow provided by operating activities exceeds net income by \$270,000. This occurs primarily because we add back amortization of \$150,000 and accounts payable increases by \$190,000. Thus, the reader of the cash flow statement gets important insights as to how much cash flow was developed from daily operations.

2-25. The buildup in plant and equipment of \$400,000 (gross) and \$250,000 (net) has been financed, in part, by the large increase in accounts payable (190,000). This is not a very satisfactory situation. Short-term sources of funds can always dry up, while capital asset needs are permanent in nature. The firm may wish to consider more long-term financing, such as a mortgage, to go along with profits, the increase in bonds payable, and the add-back of amortization.

2-26. $$\text{Book value Per share} = \frac{\text{Shareholders' equity - Preferred stock}}{\text{Common shares outstanding}}$$

$$\text{Book value per share (2008)} = \frac{(\$1{,}120{,}000 - \$90{,}000)}{120{,}000} = \frac{\$1{,}030{,}000}{120{,}000} = \mathbf{\$8.58}$$

$$\text{Book value per share (2009)} = \frac{(\$1{,}220{,}000 - \$90{,}000)}{120{,}000} = \frac{\$1{,}130{,}000}{120{,}000} = \mathbf{\$9.42}$$

2-27. Market value $= 2.4 \times \$9.42 =$ **\$22.61**

P/E ratio $= \$22.61 / \$1.25$

$= 18.09$ or **18x**

2-28. **Winfield Corporation**

Statement of Cash Flows, December 31, 2009

Operating activities:		
Net income (earnings aftertaxes)..............		$ 14,000
Items not requiring cash:		
Amortization (buildings).....	$10,500	
Gain on sale of investment	(5,250)	
Loss on sale of equipment	1,050	
		6,300
Cash flow from operations:		20,300
Changes in non-cash working capital:		
Increase in accounts receivable...	(2,450)	
Increase in inventory..................	(5,250)	
Increase in prepaid expenses.......	(175)	
Decrease in accounts payable.....	(1,750)	
Increase in notes payable...........	2,625*	
Increase in accrued expenses......	1,925	
Decrease in interest payable........	(175)	
Net change in non-cash working capital......		(5,250)
Cash provided by operating activities…......		15,050
Investing activities:		
Proceeds from the sale of investments..	8,750	
Proceeds from the sale of equipment....	2,450	
Purchase of equipment.........................	(15,750)	
Purchase of land (see note)..................	(8,750)	
Cash used in investing activities…………..		(13,300)
Financing activities:		
Increase in bonds payable....................	5,250	
Common stock dividends paid.............	(6,650)	
Cash provided by financing activities…………..		(1,400)
Net increase in cash		350
Cash, beginning of year		1,400
Cash, end of year		$ 1,750

Issued note of $8,750 for land purchase (non-cash); due June 30, 2010.

*Notes payable (trade) might be included in operating or financing activities.

2-29. **Dominion Pines Corporation**

a. Income Statement

For the Year Ending December 31, 2009

Sales……………………………………………..	$330,000
Cost of goods sold @ 60%................................	198,000
Gross profit…………………………………..	132,000
Selling and administration expense…………......	33,000
Amortization expense…………………………...	37,500
Operating profit………………………………	61,500
Interest expense (1)……………………………..	12,000
Earnings before taxes…………………………	49,500
Taxes @ 20%..	9,900
Earnings aftertaxes……………………………	$39,600

(1) Interest expense = (12% × $75,000 + 10% × $30,000) = $12,000

b. **Dominion Pines Corporation**

Balance Sheet

December 31, 2009

Cash	$ 15,000	Accounts payable	$ 26,000
Accounts receivable	27,000	Notes payable	40,000
Inventory	45,000	Bonds payable	60,000
Miscellaneous	18,000		
Current assets	105,000	Total liabilities	126,000
Capital assets:		Shareholders' equity:	
Plant and Equipment	435,000	Common stock	150,000
less: acc. amortization	112,500	Retained earnings	151,500
Net plant & equipment	322,500		
Total assets	$427,500	Total liabilities & equity	$427,500

Acc. Amortization = $75,000 + $37,500 = $112,500

Retained Earnings = $118,000 + $39,600 - $6,100 = $151,500 *c.* **Dominion Pines Corporation**

Statement of Cash Flows

For the Year Ended December 31, 2009

Operating activities:		
Net income (earnings aftertaxes)................		$39,600
Add items not requiring an outlay of cash:		
Amortization..............................	$ 37,500	37,500
Cash flow from operations		77,100
Increase in accounts receivable..	(4,500)	
Increase in inventory.................	(7,500)	
Increase in accounts payable.....	6,000	
Increase in notes payable……..	10,000*	
Net change in non-cash working capital.....		4,000
Cash provided by operating activities.........		81,100
Investing activities:		
Increase in plant and equipment.........	(60,000)	
Cash used in investing activities................		(60,000)
Financing activities:		
Decrease in bonds payable.................	(15,000)	
Common stock dividends paid...........	(6,100)	
Cash used in financing activities………..		(21,100)
Net increase (decrease) in cash		0
Cash, at beginning of year		15,000
Cash, end of year		$15,000

* **Note**: There is a healthy debate as to whether notes payable (trade related) should be included in operating or financing activities.

2-30. Bobbie's Coffee Beans Ltd.

a.

2008	Net income	$52,000
	Taxes @ 14.50%	7,540
	Income aftertaxes	**$44,460**
2009	Net income	$124,000
	Taxes @ 14.50%	17,980
	Income aftertaxes	**$106,020**

b. The average tax rate is **14.50%**.

2-31. Coastal Pipeline Corp.

a.

Cash flow from operating activities	$8.00	million
- Capital expenditures	1.50	
- Common share dividends	0.60	
- Preferred share dividends	0.25	
Free cash flow	**$5.65**	**million**

b. Free cash flow represents the funds that are available for special financial activities, such as the acquisition of another firm.

2-32. **Luba Corporation**

Income Statement

Sales	$533,000
Cost of goods sold	226,000
Gross Profit	307,000
Selling and administrative expense	77,000
Amortization expense	66,000
Operating profit	164,000
Interest expense	28,000
Earnings before taxes	136,000
Taxes @ 13.00%	17,680
Earnings aftertaxes	**$118,320**

2-33. **Luba Corporation (Continued)**

Tax savings on amortization = $66,000 × 13.00%
= **$8,580**

2-34. **R.E. Forms Ltd.**

Alberta	Net income	$75,000
	Taxes @ 14.00%	10,500
	Income aftertaxes	**$64,500**
Ontario	Net income	$75,000
	Taxes @ 16.5%	12,375
	Income aftertaxes	**$62,625**

2-35. J.B. Wands

a.

Investment	\$14,000	
Bond interest @ 6.0%		\$840.00
Marginal tax rate (Saskatchewan)	35.00%	
Combined taxes payable		294.00
Aftertax bond yield (return)		\$546.00
Aftertax yield		

$546.00/ $14,000 × 100% = **3.90%**

Investment	\$14,000	
Share dividend @ 5.0%		\$700.00
Marginal tax rate (Saskatchewan)	7.30%	
Combined taxes payable		51.10
Aftertax bond yield (return)		\$648.90
Aftertax yield		

$648.9/ $14,000 × 100% = **4.64%**

The dividend provides a better aftertax yield (return).

b. Bond interest is a fixed payment. Share dividends may not be paid and shares are subject to capital gains and losses. This makes them riskier.

2-36. Billie Fruit

Top bracket (Investment of $20,000)

Share dividend @ 7.0%		$1,400.00
Marginal tax rate (Yukon)	17.23%	
Combined taxes payable		<u>241.22</u>
Aftertax dividend yield (return)		$1,158.78
Aftertax yield		

Better: $1,158.78/ $20,000 × 100% = **5.79%**

Capital gain @ 7.0%		$1,400.00
Marginal tax rate (Yukon)	21.20%	
Combined taxes payable		<u>296.80</u>
Aftertax bond yield (return)		$1,103.20
Aftertax yield		

$1,103.20/ $20,000 × 100% = **5.52%**

Middle bracket ($37,885 to $59,180)

Share dividend @ 7.0%		$1,400.00
Marginal tax rate (Yukon)	4.40%	
Combined taxes payable		<u>61.60</u>
Aftertax dividend yield (return)		$1,338.40
Aftertax yield		

Better: $1,338.40 $20,000 × 100% = **6.69%**

Capital gain @ 7.0%		$1,400.00
Marginal tax rate (Yukon)	15.84%	
Combined taxes payable		<u>221.76</u>
Aftertax bond yield (return)		$1,178.24
Aftertax yield		

$1,178.24/ $20,000 × 100% = **5.89%**

2-37. Banff Corporation

Yield is 7%
On each $100 investment

Interest paid..	$7.00
Tax savings @ 40%...	2.80
Combined bondholder tax payable @ 39%.....	2.73
Net loss to government ($2.80 - $2.73)	**$0.07**