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Liabilities and Equity Exercises III

Christopher J. Skousen; Larry M. Walther

Larry M. Walther & Christopher J. Skousen

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Contents

Problem 1

Prepare journal entries to record each of the following independent stock issue situations.

a) Max Graphics Corporation issued 500,000 shares of $0.50 par value common stock. The issue price was $18 per share.

b) Aztec Corporation issued 35,000 shares of no par common stock for $25 per share.

c) Pyramid Play issued 60,000 shares of $50 par value preferred stock. The issue price was $76 per share.

d) Paradise Land Management issued 15,000 shares of $1 par value common stock for land with a fair value of $250,000.

Worksheet 1

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
(a)			
	To record issue of 500,000 shares of $0.50 par value common stock at $18 per share		
(b)			
	To record issue of 35,000 shares of no par value common stock at $25 per share		
(c)			
	To record issue of 60,000 shares of $50 par value preferred stock at $76 per share		
(d)			
	To record issue of 15,000 shares of $1 par value common stock for land with a fair value of $250,000		

Solution 1

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
(a)	Cash	9,000,000	
	Common Stock		250,000
	Pd. in Cap. in Excess of Par/CS		8,750,000
	To record issue of 500,000 shares of $0.50 par value common stock at $18 per share		
(b)	Cash	875,000	
	Common Stock		875,000
	To record issue of 35,000 shares of no par value common stock at $25 per share		
(c)	Cash	4,560,000	
	Preferred Stock		3,000,000
	Pd. in Cap. in Excess of Par/PS		1,560,000
	To record issue of 60,000 shares of $50 par value preferred stock at $76 per share		
(d)	Land	250,000	
	Common Stock		15,000
	Pd. in Cap. in Excess of Par/CS		235,000
	To record issue of 15,000 shares of $1 par value common stock for land with a fair value of $250,000		

Problem 2

Kingston presented the following selected information. The company has a calendar year end.

Before considering the effects of dividends, if any, Kingston's net income for 20X7 was $1,250,000.

Before considering the effects of dividends, if any, Kingston's net income for 20X8 was $1,500,000.

Kingston declared $375,000 of dividends on November 15, 20X7. The date of record was January 15, 20X8. The dividends were paid on February 1, 20X8.

Stockholders' equity, at January 1, 20X7, was $2,500,000. No transactions impacted stockholders' equity throughout 20X7 and 20X8, other than the impact of earnings and dividends on retained earnings.

a) Prepare journal entries, if needed, to reflect the dividend declaration, the date of record, and the date of payment.

b) How much was net income for 20X7 and 20X8?

c) How much was total equity at the end of 20X7 and 20X8?

d) Is total "working capital" reduced on the date of declaration, date of record, and/or date of payment?

Worksheet 2

a)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
Declare			
Date			
Record			
Date			
Pay			
Date			

b)

c)

d)

Solution 2

a)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
Declare	Dividends	375,000	
Date	Dividends Payable		375,000
	To record declaration of dividends		
Record	No Entry		
Date			
Pay	Dividends Payable	375,000	
Date	Cash		375,000
	To record payment of previously declared dividend		

b) Net income is unaffected by the dividends. Dividends are a distribution, not an expense. Net income for 20X7 is $1,125,000. Net income for 20X8 is $1,500,000.

c) Total equity at December 31, 20X7 is $3,250,000 ($2,500,000 beginning balance + $1,125,000 net income - $375,000 dividends declared).

Total equity at December 31, 20X8 is $4,750,000 ($3,250,000 beginning balance + $1,500,000 net income).

d) Working capital is reduced on the date of declaration via the addition of a current liability relating to dividends payable. No impact occurs on the date of record. On the date of payment, current assets (cash) and current liabilities (dividends payable) are both reduced by the same amount resulting in no change in working capital.

Problem 3

Solingen Corporation has 15,000,000 shares of $2 par value common stock outstanding. This stock was originally issued at $12 per share. The company also has 500,000 shares of $75, 5%, cumulative preferred stock outstanding. The preferred stock was originally issued at par. During 20X5, the company experienced a significant business interruption and was unable to pay any dividends. Prior to 20X5, the preferred shareholders had always received the expected dividend. During 20X6, the company returned to profitability, and paid $5,000,000 in dividends.

a) How much is the company's legal capital, additional paid-in capital, and total paid-in capital?

b) What accounting/disclosure is needed relating to the dividends in arrears on the preferred stock as of the end of 20X5 (i.e., should a liability be established)?

c) How would the 20X6 dividends be divided between common and preferred stock?

Worksheet 3

a)

b)

c)

Solution 3

a) Legal capital: (15,000,000 X $2 par) + (500,000 X $75 par) = $67,500,000

Additional paid-in capital: (15,000,000 X ($12 issue price - $2 par)) = $150,000,000

Total paid-in capital: ($67,500,000 + $150,000,000) = $217,500,000

b) Generally, a company would prepare a footnote to the financial statements indicating any dividends in arrears (in this case, $1,875,000 -- 500,000 X $75 X 5%). A liability would not be established prior to the actual declaration of a dividend; in other words, dividends in arrears are not a liability unless formally declared.

c) Of the $5,000,000 in dividends, $3,750,000 would be paid to preferred (the current and prior year amount at $1,875,000 per year) and $1,250,000 would be paid to common.

Problem 4

Aalborg Corporation had an equity structure that consisted of $2 par value common stock, $22,000,000; paid-in capital in excess of par, $88,000,000; and retained earnings, $64,300,000.

Transaction A

Believing that its share price was depressed due to general market conditions, Aalborg's board of directors authorized the reacquisition of 1,000,000 shares of common stock. These treasury shares were purchased at $16 per share.

Transaction B

Subsequent to Transaction A, the stock price increased to $19 per share, and half of the treasury shares were sold in the open market.

Transaction C

Subsequent to Transaction B, Aalborg experienced business difficulties that necessitated it selling the remaining treasury shares to raise additional cash. The shares were sold for $5 per share.

a) Assuming that all 11,000,000 shares of Aalborg were issued at the same time and at the same price per share, what was the original issue price? How does this compare to the price paid in Transaction A, and is it rational for a company to pay more to buy back shares than it originally received upon the initial issuance?

b) Prepare an appropriate journal entry to record Transaction A. Aalborg records treasury shares at cost.

c) Prepare an appropriate journal entry for Transaction B.

d) Prepare an appropriate journal entry for Transaction C.

e) Is there any income statement impact from these transactions? What is the impact on total stockholders' equity from each of the three transactions?

Worksheet 4

a)

b), c), d)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
A			
	To record acquisition of 1,000,000 treasury shares at $16 per share		
B			
	To record reissue of 500,000 treasury shares at $19 per share		
C			
	To record reissue of 500,000 treasury shares at $5 per share		

e)

Solution 4

a) The original issue price was $110,000,000 ($22,000,000 + $88,000,000) for 11,000,000 shares. This translates into $10 per share ($110,000,000/11,000,000). This is considerably lower than the reacquisition price of $16 per share. However, the stock issuance may have occurred many years earlier (note that the company has built up substantial retained earnings), and the corporate value could now be much higher.

b), c), d)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
A	Treasury Stock	16,000,000	
	Cash		16,000,000
	To record acquisition of 1,000,000 treasury shares at $16 per share		
B	Cash	9,500,000	
	Treasury Stock		8,000,000
	Paid-in Capital in Excess of Par		1,500,000
	To record reissue of 500,000 treasury shares at $19 per share		
C	Cash	2,500,000	
	Paid-in Capital in Excess of Par	5,500,000	
	Treasury Stock		8,000,000
	To record reissue of 500,000 treasury shares at $5 per share		

e) There is generally no impact on earnings related to treasury stock transactions. However, treasury stock is a contra equity account. In Transaction A, total equity declines by $16,000,000. In Transaction B, total equity increases by $9,500,000. In Transaction C, total equity increases by $2,500,000.

Problem 5

Master Mixer's stock has risen rapidly to $15 per share. The increase is due to excitement about its smoothie mixer that uses steel blades to mix fruits and vegetables. This process enhances the final appearance and quality smoothies.

The board of directors is considering strategies to divide the corporate ownership into more shares of stock, and bring about some reduction in the price per share. They are considering a stock split, small stock dividend, or large stock dividend. The board is unsure of the accounting effects for such transactions, and has requested information about how stockholders' equity would be impacted.

Prior to the contemplated stock transaction, equity consisted of:

Common stock, $4.50 par, 7,000,000 shares authorized,		
1,500,000 shares issued and outstanding	$	6,750,000
Paid-in capital in excess of par		4,000,000
Retained earnings		5,000,000
Total stockholders' equity	$	15,750,000

a) Assuming the board were to declare a 3 for 1 split, how would the revised stockholders' equity appear?

b) Assuming the board were to declare a 20% stock dividend, how would the revised stockholders' equity appear?

c) Assuming the board were to declare a 50% stock dividend, how would the revised stockholders' equity appear?

d) Prepare journal entries that would be needed (if necessary) to record the proposed transactions from part (a), (b), and (c).

Worksheet 5

a)

Common stock,	$	-
Paid-in capital in excess of par		-
Retained earnings		-
Total stockholders' equity	$	-

b)

Common stock,	$	-
Paid-in capital in excess of par		-
Retained earnings		-
Total stockholders' equity	$	-

c)

Common stock,	$	-
Paid-in capital in excess of par		-
Retained earnings		-
Total stockholders' equity	$	-

Note: Stockholders' equity is unchanged in each case and remains at $10,500,000

d)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
split			
small			
large			

Solution 5

a)

Common stock, $1.50 par, 21,000,000 shares authorized,		
4,500,000 shares issued and outstanding	$	6,750,000
Paid-in capital in excess of par		4,000,000
Retained earnings		5,000,000
Total stockholders' equity	$	15,750,000

This display of equity reveals no change in equity amounts; instead, the par value is reduced from $4.50 to $1.50, and the number of shares issued and outstanding is trippled.

b)

Common stock, $4.50 par, 7,000,000 shares authorized,		
1,800,000 shares issued and outstanding	$	8,100,000
Paid-in capital in excess of par		7,150,000
Retained earnings		500,000
Total stockholders' equity	$	15,750,000

This display of equity reveals that the number of shares is increased by 300,000 (20% X 1,500,000). The retained earnings is decreased by the fair value of the newly issued shares (300,000 X $15 = $4,500,000). The $4,500,000 reduction in retained earnings is allocated back to common stock and additional paid-in capital.

c)

Common stock, $4.50 par, 7,000,000 shares authorized,		
2,250,000 shares issued and outstanding	$	10,125,000
Paid-in capital in excess of par		4,000,000
Retained earnings		1,625,000
Total stockholders' equity	$	15,750,000

This display of equity reveals that the number of shares is increased by 750,000 (50% X 1,500,000). The retained earnings is decreased by the par value of the newly issued shares (750,000 X $4.5 = $3,375,000). The $3,375,000 reduction in retained earnings is allocated back to common stock.

Note: Stockholders' equity is unchanged in each case and remains at $15,750,000 d)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
split	no entry		
	par is cut by one third and issued / outstanding shares are trippled		
small	Retained Earnings	4,500,000	
	Common Stock		1,350,000
	Paid-in Capital in Excess of Par		3,150,000
	To record 20% stock dividend (1,500,000 X 20% X $15)		
large	Retained Earnings	3,375,000	
	Common Stock		3,375,000
	To record 50% stock dividend (1,500,000 X 50% X $4.50)		

Problem 6

Pisa Pizza Corporation was incorporated on January 1, 20X4. The following equity-related transactions occurred during 20X4. Evaluate these activities and prepare a statement of stockholders' equity for the year ending December 31, 20X4.

Issued 6,000,000 shares of $0.50 par value common stock at $6 per share.

Declared and issued a 10% stock dividend (600,000 shares) at a time when the market value the stock was $9 per share.

Reacquired 50,000 treasury shares at $7 per share.

Declared and paid cash dividends of $200,000.

Reported net income for the full year of $3,000,000.

Worksheet 6

PISA PIZZA CORPORATION
Statement of Stockholders' Equity
For the Year Ending December 31, 20X4

	Common Stock, $0.50 Par	Paid-in Capital in Excess of Par	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balance on January 1	$ -	$ -	$ -	$ -	$ -
	-	-			-
				-	-
			-		-
			-		-
	-	-	-	-	-
Balance on December 31	$ -	$ -	$ -	$ -	$ -

Solution 6

PISA PIZZA CORPORATION Statement of Stockholders' Equity For the Year Ending December 31, 20X4					
	Common Stock, $0.50 Par	**Paid-in Capital in Excess of Par**	**Retained Earnings**	**Treasury Stock**	**Total Stockholders' Equity**
Balance on January 1	$ -	$ -	$ -	$ -	$ -
Issuance of additional shares	3,000,000	30,000,000			36,000,000
Purchase of treasury stock				(350,000)	(350,000)
Net income			3,000,000		3,000,000
Cash dividends			(200,000)		(200,000)
Stock dividend	300,000	5,100,000	(5,400,000)	-	-
Balance on December 31	$ 3,300,000	$ 38,100,000	$ (2,600,000)	$ (350,000)	$ 38,450,000

Problem 7

Summary information for Country Cowboy Corporation's balance sheet follows:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	312,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	4,962,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		725,000		
Total liabilities			$	1,687,500
Stockholders' equity				
Common stock, $5 par	$	1,750,000		
Paid-in capital in excess of par		750,000		
Retained earnings		775,000		
Total stockholders' equity				3,275,000
Total Liabilities and equity			$	4,962,500

Country Cowboy's business is growing rapidly, and the company needs to expand its manufacturing facilities. This expansion will require the company to obtain an additional $2,500,000 in cash. The company is exploring five alternatives to obtain the necessary capital:

DEBT OPTION:

Country Cowboy is able to borrow, on a 4-year note, the full amount needed. The interest rate on this note would be 5%, and the note would require monthly payments.

COMMON STOCK OPTION:

Country Cowboy has identified an investor who is willing to pay $2,500,000 for 100,000 newly issued common shares. Common shares have been paying a dividend of $0.25 per share. Country Cowboy anticipates that this dividend rate will be maintained.

NONCUMULATIVE PREFERRED STOCK OPTION:

Country Cowboy has identified a hedge fund that will pay $2,500,000 for 6% noncumulative preferred stock to be issued at par.

CUMULATIVE PREFERRED STOCK OPTION:

Country Cowboy has identified an insurance company that will pay $2,500,000 for 4% cumulative preferred stock to be issued at par.

CONVERTIBLE PREFERRED STOCK OPTION:

Country Cowboy has identified a retirement fund that will pay $2,500,000 for 3% cumulative preferred stock to be issued at par. The preferred stock must be convertible into 50,000 shares of common stock at the option of the retirement fund.

a) Prepare the revised balance sheets that would result under each of the five alternative financing scenarios.

b) Which of the alternative financing scenarios involve fixed committed payments to investors, and which involve discretionary payments?

c) Which one of the alternative financing scenarios presents the least risk to existing shareholders? Which one of the scenarios involves the most ownership dilution for existing shareholders?

d) Which scenario is most risky, and does it require any ownership dilution for existing shareholders?

e) What is the price per share that is implicit in the common stock alternative? What price per share must the common stock reach before convertible preferred shares might logically be converted? Why might the preferred share alternatives involve different yields?

f) Evaluate the balance sheets prepared in part (a). Which appear similar? Given that certain balance sheets appear similar, yet the fundamental economic positions vary, what is to be learned about carefully examining financial statements and notes?

Worksheet 7

a)

DEBT OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	-
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	-
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		-		
Total liabilities			$	-
Stockholders' equity				
Common stock, $5 par	$	-		
Paid-in capital in excess of par		-		
Retained earnings		775,000		
Total stockholders' equity				-
Total Liabilities and equity			$	-

COMMON STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	-
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	-
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		-		
Total liabilities			$	-
Stockholders' equity				
Common stock, $5 par	$	-		
Paid-in capital in excess of par		-		
Retained earnings		775,000		
Total stockholders' equity				-
Total Liabilities and equity			$	-

NONCUMULATIVE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		-		
Total liabilities			$	-
Stockholders' equity				
Preferred stock, 6% noncumulative	$	-		
Common stock, $5 par		-		
Paid-in capital in excess of par		-		
Retained earnings		775,000		
Total stockholders' equity				-
Total Liabilities and equity			$	-

CUMULATIVE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4		
Assets		
Cash		$ -
Accounts receivable		625,000
Inventory		1,875,000
Property, plant & equipment (net)		$ 2,150,000
Total assets		$ -
Liabilities		
Accounts payable	$ 312,500	
Accrued liabilities	650,000	
Notes payable	-	
Total liabilities		$ -
Stockholders' equity		
Preferred stock, 4% cumulative	$ -	
Common stock, $5 par	-	
Paid-in capital in excess of par	-	
Retained earnings	775,000	
Total stockholders' equity		-
Total Liabilities and equity		$ -

CONVERTIBLE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	-
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	-
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		-		
Total liabilities			$	-
Stockholders' equity				
Preferred stock, 3% convert/cumul.	$	-		
Common stock, $5 par		-		
Paid-in capital in excess of par		-		
Retained earnings		775,000		
Total stockholders' equity				-
Total Liabilities and equity			$	-

b)

c)

d)

e)

f)

Solution 7

a)

DEBT OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		3,225,000		
Total liabilities			$	4,187,500
Stockholders' equity				
Common stock, $5 par	$	1,750,000		
Paid-in capital in excess of par		750,000		
Retained earnings		775,000		
Total stockholders' equity				3,275,000
Total Liabilities and equity			$	7,462,500

COMMON STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		725,000		
Total liabilities			$	1,687,500
Stockholders' equity				
Common stock, $5 par	$	2,250,000		
Paid-in capital in excess of par		2,750,000		
Retained earnings		775,000		
Total stockholders' equity				5,775,000
Total Liabilities and equity			$	7,462,500

NONCUMULATIVE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		725,000		
Total liabilities			$	1,687,500
Stockholders' equity				
Preferred stock, 6% noncumulative	$	2,500,000		
Common stock, $5 par		1,750,000		
Paid-in capital in excess of par		750,000		
Retained earnings		775,000		
Total stockholders' equity				5,775,000
Total Liabilities and equity			$	7,462,500

CUMULATIVE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		725,000		
Total liabilities			$	1,687,500
Stockholders' equity				
Preferred stock, 4% cumulative	$	2,500,000		
Common stock, $5 par		1,750,000		
Paid-in capital in excess of par		750,000		
Retained earnings		775,000		
Total stockholders' equity				5,775,000
Total Liabilities and equity			$	7,462,500

CONVERTIBLE PREFERRED STOCK OPTION:

COUNTRY COWBOY CORPORATION Balance Sheet August 15, 20X4				
Assets				
Cash			$	2,812,500
Accounts receivable				625,000
Inventory				1,875,000
Property, plant & equipment (net)			$	2,150,000
Total assets			$	7,462,500
Liabilities				
Accounts payable	$	312,500		
Accrued liabilities		650,000		
Notes payable		725,000		
Total liabilities			$	1,687,500
Stockholders' equity				
Preferred stock, 3% convert/cumul.	$	2,500,000		
Common stock, $5 par		1,750,000		
Paid-in capital in excess of par		750,000		
Retained earnings		775,000		
Total stockholders' equity				5,775,000
Total Liabilities and equity			$	7,462,500

b) The debt option imposes a fixed periodic payment requirement. The two cumulative preferred stock scenarios impose cash flow commitments that must be met ahead of common shareholders. The noncumulative and common stock scenarios involve payments that are discretionary.

c) The least risky scenario is the common stock route. However, this also involves the greatest amount of ownership dilution.

d) The debt option is risky because the periodic payments are mandatory. However, existing shareholders retain full ownership of the entity.

e) The common stock is valued at $25 per share ($2,500,000/100,000 shares). The $2,500,000 in preferred stock might be converted at a price point above $50 per share ($2,500,000/50,000 shares). The preferred yields vary based on risk and opportunity. The lower yield relates to cases where the dividend is cumulative and where the preferred has the potential to be exchanged for more valueable common stock.

f) The preferred scenarios all result in the same fundamental balance sheet, but the economics vary based on the dividend and conversion feature. This information can be determined by inspection of financial statements and notes, but not by relyiing on the fundamental accounting equation (assets = liabilities + equity) alone.

Problem 8

Uintah Oil Corporation's board of directors is elected by a vote of the common stockholders. As such, the board believes that it owes a fiduciary duty to maximize the returns for common shareholders. The board is evaluating a proposal to raise an additional $5,000,000 in capital by issuing preferred stock. The company's underwriter for the preferred stock offering has determined that the preferred stock will carry a 4% rate if the preferred shares are offered as cumulative shares and a 5% rate if noncumulative.

The board plans to pay out annual dividends equal to net income for each of the next four years. The anticipated income is $150,000 in 20X1, $0 in 20X2, $450,000 in 20X3, and $900,000 in 20X4.

Prepare a table showing how much in dividends would be paid to common shareholders if the preferred stock is issued as cumulative versus noncumulative. To maximize the anticipated return to common over the next 4 years, should the board conclude to issue the preferred stock as cumulative or noncumulative? If the anticipated income pattern were different, could a different conclusion be reached?

Worksheet 8

	20X1	20X2	20X3	20X4	Totals
Total Income/Dividends	$ 150,000	-0-	$ 450,000	$ 900,000	1,500,000
If 4% Cumulative:					
Preferred dividends					
Common dividends					
If 5% Noncumulative:					
Preferred dividends					
Common dividends					

Solution 8

	20X1	20X2	20X3	20X4	Totals
Total Income/Dividends	$ 150,000	-0-	$ 450,000	$ 900,000	1,500,000
If 4% Cumulative:					
Preferred dividends	$ 150,000	-0-	$ 250,000	$ 200,000	600,000
Common dividends	-0-	-0-	200,000	700,000	900,000
If 5% Noncumulative:					
Preferred dividends	$ 150,000	-0-	$ 250,000	$ 250,000	650,000
Common dividends	-0-	-0-	200,000	650,000	850,000

Note that the cumulative stock pays $200,000 per year (4% X $5,000,000 par). Since no income was available for distribution during 20X2, the unpaid amount went into arrears and was paid in 20X3.

Note that the noncumulative stock pays $250,000 per year (5% X $5,000,000 par), but only to the extent income is available for distribution. The "underpayment" during 20X1 and 20X2 is simply foregone.

The board should note that the anticipated income level produces a greater common dividend over the four year horizon with the noncumulative stock. If the income pattern differs, the actual results may differ significantly.