Chapter 13
Equities

M. Problems

P13-1. ***Suggested solution:***

	Statement	T/F	Explanation (not part of required)
a.	Common (ordinary) shares have priority over preferred shares.	F	Common shares have a residual claim therefore a lower priority then preferred shares.
b.	A share with cumulative dividends must be a preferred share.	T	Common shares cannot have cumulative dividends; therefore, any share that has cumulative dividends must be preferred.
c.	Investors favour purchasing preferred shares.	F	"Preferred shares" refers to priority in liquidation, not investor preferences.
d.	Common shares always have voting rights.	F	Common shares have a residual claim. They may or may not have voting rights.

P13-2. ***Suggested solution:***

	Statement	T/F	Explanation (not part of required)
a.	The number of shares issued > number outstanding >number authorized.	F	The correct order is: number authorized ≥ number issued ≥ number outstanding.
b.	A share with a fixed dividend rate (i.e., a preferred share) is more valuable than one without.	F	The value of preferred can be higher or lower than that of common shares.
c.	All issued shares are eligible to vote for the board of directors.	F	Shares can be issued but held in treasury and these shares do not have voting rights.
d.	All outstanding shares are eligible to vote for the board of directors.	F	Some shares do not have voting rights.

P13-3. ***Suggested solution:***

The "par value" label can be misleading to some investors who confuse the idea of par value with the par value for a bond. For example, a bond with $1,000 par value is worth $1,000 at maturity. An investor may wrongly assume that par value of a common stock suggests the share will be worth at least its par value. In fact, there is no such guarantee for common shares; a common share is worth what another person will pay, which has no connection with the share's par value. In a worst-case situation, the value of the share may become worthless in the event of bankruptcy. To protect naive investors from making an incorrect association between par value and the value of a common share, par value common shares are generally not issued.

P13-4. ***Suggested solution:***

a. The cumulative dividend feature means that common shareholders cannot receive any dividends until the company pays all current and missed dividends to the preferred shareholders. Only after all dividends to preferred shareholders have been paid can common shareholders receive any dividends.
b. Preferred shares generally have this feature as the payment of dividends is not a legal obligation. Further, preferred shareholders (generally) do not have a voice on the board of directors to protect their interest. Were there no cumulative feature and protection, then when dividends were later paid, preferred shareholders could only enforce that year's prescribed dividend before dividends are paid to common shareholders. By having a cumulative feature it protects preferred shareholders from being overlooked to the advantage of common shareholders when it comes to dividends.
c. Common shares cannot have a cumulative feature because such shares do not have a fixed dividend rate. In any period, zero dividends are as valid as any other rate. Another way to look at it is that a cumulative feature would be redundant: since common shares have a residual interest in the entity, any cash retained and not paid out to common shareholders in one period remains the property of the company and therefore becomes part of the residual claim held by common shareholders.

P13-5. ***Suggested solution:***

a. Residual interest means "what is left over," so common shareholders are entitled to whatever remains after paying liabilities and preferred shareholders. While this can be bad should the company run into difficulty, it also means that common shareholders have unlimited upside potential should the company perform well. Creditors and preferred shareholders do not enjoy this upside potential.

b.

Debt-like qualities of preferred shares	Equity-like qualities of preferred shares
Has a specified dividend rate.	Dividends are paid at the discretion of the board of directors.
Is not entitled to the residual interest in the company.	Cannot force company into bankruptcy for failure to declare dividends.
Usually does not include a vote for the board of directors.	Defined as equity by the CBCA.
Has priority over common shares.	Has lower priority than creditors, employees, suppliers, and government.
Market price significantly depends on market yields on similar financial investments.	Usually does not have a specific maturity date.

c. There are several reasons why management would want to use preferred shares. First, preferred shares do not dilute common shareholders' voting interest and residual economic interest in the company. Second, as a component of equity, issuing preferred shares lowers leverage ratios. Third, the lower leverage from using preferred shares increases the opportunity to issue additional debt. Fourth, preferred shareholders cannot force the company into bankruptcy, so using this type of financing does not increase the risk of bankruptcy, whereas issuing debt would increase this risk.

P13-6. ***Suggested solution:***

a. The rules and procedures of accounting for equity are set at the national level as each country has its unique and particular legal provisions for how corporations are set up. Accounting procedures must respect and comply with the legal regulations surrounding how companies are incorporated and the precise requirements and constraints related to share capital reporting and recording.

b. There are IFRS for most other balance sheet accounts. Further, equity is defined as the residual of assets less liabilities. Therefore, the total amount of equity should be materially the same for all jurisdictions. Financial statement users are less interested in the precise accounting recording of amounts within share equity, and more interested in the recording and reporting of assets, liabilities, and determination of earnings. Users are very interested in the legal details and specifics of share equity accounts, and at that level it is the obligation of the national accounting standard setters and security market regulators to define the precise accounting standards to suit local conditions.

P13-7. ***Suggested solution:***

For accounting purposes, the distinguishing characteristic of a common share is that *it has a residual claim* to the company's earnings and assets, whereas preferred shares have a maximum claim normally specified by the shares' dividend rate.

Common shares for companies incorporated under the Canada Business Corporations Act do not have par value. Common shares also normally have voting rights, but not all common shares do. It is true that common shares cannot have cumulative dividends; however, many preferred shares also do not have cumulative dividends. Finally, whether a share is issued or outstanding is an irrelevant consideration for classifying a share as common or preferred.

P13-8. ***Suggested solution:***

The separation is necessary to distinguish the results of transactions with owners from those resulting from transactions with non-owners. Transactions with owners include contribution from owners (share issuances), distribution to owners (dividends), and repurchases from owners. Transactions with other parties include all the operating activities (sales, production) as well as investing activities (purchasing equipment) and debt financing. Generally, the distinction helps to separate returns on capital (i.e., profit) from amounts contributed by owners.

P13-9. ***Suggested solution:***

Account	Equity section	Asset or liability
Preferred shares	√	
Investment in Company A common shares		√
Treasury shares	√	
Accumulated other comprehensive income	√	
Bonds payable		√
Donated assets		√
Appropriated reserves	√	
Provision for warranties		√

P13-10. ***Suggested solution:***

Account	Contributed capital	Not contributed capital
Common shares	√	
Retained earnings		√
Preferred shares	√	
Accumulated other comprehensive income		√
Appropriated reserves		√
Equity in associate		√
Contributed surplus—common shares	√	
Treasury shares	√	

P13-11. ***Suggested solution:***

Account	Has potential to directly affect retained earnings	No direct effect on retained earnings
Declaration of a cash dividend	√	
Issuance of common shares		√
Issuance of preferred shares		√
Appropriation for a reserve	√	
Stock split		√
Declaration of a stock dividend	√	
Omission of a cumulative dividend on preferred shares		√

P13-12. ***Suggested solution:***

Account	Transaction potentially affects this account in the manner indicated (Yes / No)
Debit to share capital	Yes
Debit to contributed surplus	Yes
Debit to treasury stock	Yes
Debit to loss on share retirement	No
Debit to retained earnings	Yes
Debit to accumulated other comprehensive income (AOCI)	No

P13-13. ***Suggested solution:***

Account	Transaction potentially affects this account in the manner indicated (Yes / No)
Debit to cash	No
Debit to retained earnings	Yes
Credit to share capital	No
Debit to loss on share retirement	No
Debit to contributed surplus	Yes
Debit to treasury stock	No

P13-14. ***Suggested solution:***

Account	Transaction potentially affects this account in the manner indicated (Yes / No)
Debit to share capital	No
Debit to contributed surplus	No
Debit to retained earnings	No
Debit to treasury stock	Yes
Debit to accumulated other comprehensive income (AOCI)	No
Credit to share capital	No

P13-15. ***Suggested solution:***

a.

Dr. Cash (20,000 sh × $12/sh)	240,000	
Dr. Subscriptions receivable [20,000 shares × ($20/sh - $12/sh)]	160,000	
Cr. Common stock subscribed (20,000 sh × $20/sh)		400,000

b.

Dr. Cash (20,000 sh × $8/sh)	160,000	
Cr. Subscriptions receivable		160,000
Dr. Common stock subscribed	400,000	
Cr. Common stock		400,000

c.

Dr. Common stock subscribed (5,000 sh × $20/sh)	100,000	
Cr. Subscriptions receivable [5,000 shares × ($20/sh - $12/sh)]		40,000
Cr. Cash (5,000 sh × $12/sh)		60,000

d. The subscriptions receivable account would be reported on the balance sheet as a contra-equity account as the employees are not at risk for a decline in the price of the shares. The facts of the case do not speak to whether there is a reasonable assurance the company will collect the full amount of the loan. This is not a critical factor, though, as the lack of employee risk is sufficient to require that the receivable be deducted from equity.

P13-16. ***Suggested solution:***

a.

Dr. Cash (100,000 sh × $50/sh)	5,000,000	
Cr. Common shares		4,038,462
Cr. Preferred shares		961,538

Supporting computations		
Common shares	$42.00	
Preferred shares	10.00	
	$52.00	
Common shares—$5,000,000 × $42 / $52		$4,038,462
Preferred shares—$5,000,000 × $10 / $52		961,538
		$5,000,000

b.

Dr. Cash (100,000 sh × $50/sh)	5,000,000	
Cr. Common shares (10,000 sh × $42/sh)		4,200,000
Cr. Preferred shares ($5,000,000 - $4,200,000)		800,000

c.

Dr. Cash (100,000 sh × $50/sh - $20,000)	4,980,000	
Dr. Retained earnings	20,000	
Cr. Common shares—as calculated in part a		4,038,462
Cr. Preferred shares—as calculated in part a		961,538

P13-17. ***Suggested solution:***

January, 2015		
Dr. Cash (50,000 sh × $11/sh)	550,000	
Dr. Subscriptions receivable [50,000 shares × ($20/sh - $11/sh)]	450,000	
Cr. Common stock subscribed (50,000 sh × $20/sh)		1,000,000
July, 2015		
Dr. Cash (40,000 sh × $5/sh)	200,000	
Cr. Subscriptions receivable		200,000
Dr. Common stock subscribed (10,000 sh × $20/sh)	200,000	
Cr. Contributed Surplus—Type C (10,000 sh × $11/sh)		110,000
Cr. Subscriptions receivable [10,000 shares × ($20/sh -$11/sh)]		90,000
December 2015		
Dr. Cash (35,000 sh × $4/sh)	140,000	
Cr. Subscriptions receivable		140,000
Dr. Common stock subscribed (5,000 sh × ($20/sh)	100,000	
Cr. Contributed Surplus—Type C [5,000 sh × $11/sh + $5/sh)]		80,000
Cr. Subscriptions receivable [5,000 shares × ($20/sh - $11/sh - $5/sh)]		20,000
Dr. Common stock subscribed	700,000	
Cr. Common stock		700,000

P13-18. ***Suggested solution:***

a.

Dr. Cash (200,000 sh × $100/sh - $25,000)	19,975,000	
Dr. Retained earnings	25,000	
Cr. Common shares		11,764,706
Cr. Class A preferred shares		6,862,745
Cr. Class B preferred shares		1,372,549
Supporting computations		
Common shares	$ 60.00	
Class A preferred shares	35.00	
Class B preferred shares	7.00	
	$102.00	
Common shares—$20,000,000 × $60 / $102		$11,764,706
Class A preferred shares—$20,000,000 × $35 / $102		6,862,745
Class B preferred shares —$20,000,000 × $7 / $102		1,372,549
		$20,000,000

b.

Dr. Cash (200,000 sh × $100/sh - $25,000)	19,975,000	
Cr. Common shares		11,750,000
Cr. Class A preferred shares		6,854,167
Cr. Class B preferred shares		1,370,833
Supporting computations		
Common shares	$ 60.00	
Class A preferred shares	35.00	
Class B preferred shares	7.00	
	$102.00	
Common shares—$19,975,000 × $60 / $102		$11,750,000
Class A preferred shares—$19,975,000 × $35 / $102		6,854,167
Class B preferred shares —$19,975,000 × $7 / $102		1,370,833
		$19,975,000

c.

Dr. Cash (200,000 sh × $100/sh - $25,000)	19,975,000	
Dr. Retained earnings	25,000	
Cr. Common shares (200,000 sh × $60/sh)		12,000,000
Cr. Class A preferred shares (200,000 sh × $35/sh)		7,000,000
Cr. Class B preferred shares ($20,000,000 - $12,000,000 - $7,000,000)		1,000,000

P13-19. ***Suggested solution:***

a. Journal entries:

Mar. 1	Dr. Cash (500 sh × $40/sh)	20,000	
	Cr. Treasury shares ($90,000 / 3,000 sh = $30/sh; 500 sh × $30/sh = 15,000)		15,000
	Cr. Contributed surplus on repurchases and resales (Type B) ($20,000 - $15,000 = $5,000)		5,000
May 15	Dr. Cash (5,000 sh × $25/sh)	125,000	
	Cr. Common shares		125,000
Dec. 15	Dr. Retained earnings	170,000	
	Cr. Dividends payable (42,500 sh × $4/sh) (#shares o/s = 40,000 + 5,000 – 3,000 + 500 = 42,500)		170,000
Dec. 31	Dr. Income summary	200,000	
	Cr. Retained earnings		200,000
	This is the closing entry to close the income statement accounts.		

b. Shareholders' equity section of Utopia's balance sheet:

Utopia Is A Destination Inc.
Balance sheet excerpt (shareholders' equity)
As at December 31, 2016

Common stock, no par, 60,000 authorized, 45,000 issued	$925,000^
Contributed surplus on repurchases and resales	25,000*
Treasury shares, 2,500 shares	(75,000)†
Retained earnings	430,000‡
Total shareholders' equity	$1,305,000

^ 40,000 + 5,000 = 45,000;
$800,000 + $125,000 = $925,000.

* $20,000 + $5,000 = $25,000.

† 3,000 – 500 = 2,500 shares;
$90,000 – $15,000 = $75,000.

‡ $400,000 – $170,000 + $200,000 = $430,000

P13-20. ***Suggested solution:***

Capital transactions involve exchanges with owners of the firm. Transactions involving the issuance and repurchase of shares can result in economic gains or losses for those investors who buy or sell the company's shares and those investors do recognize accounting gains or losses. However, it would be counterproductive for the company that issued the shares to also recognize gains or losses, for two reasons. First, the company would record a "gain" when the share price declines, so the "gain" does not correspond to the underlying economic events. Second, allowing the recognition of gains in particular would create a moral hazard in which management is motivated to buy and sell shares to investors opportunistically to inflate profits. The profit motive would also influence if and when management would release important information to investors.

P13-21. ***Suggested solution:***

a.

Jan. 1, 2007	Dr. Cash	100,000,000	
	Cr. Common shares (10,000,000 sh × $10/sh)		100,000,000
Jan. 1, 2013	Dr. Common shares (100,000 sh × $10/sh)	1,000,000	
	Cr. Cash (100,000 sh × $8/sh)		800,000
	Cr. Contributed surplus		200,000

b. The credit (to contributed surplus) reflects poor management. The company issued the shares at $10/share in 2007; six years later, the price has fallen to $8 without any dividends in the intervening period. Shareholders would have been better off to "stuff their money under a mattress" or to put it safely in a bank account. Consequently, shareholders should be unhappy about the credit to contributed surplus.

c. Journal entry if repurchase price were to be $30/sh:

Jan. 1, 2013	Dr. Common shares (100,000 sh × $10/sh)	1,000,000	
	Dr. Retained earnings	2,000,000	
	Cr. Cash (100,000 sh × $30/sh)		3,000,000

d. The $2,000,000 is charged against retained earnings because the company has no contributed surplus to use up. Contributed surplus cannot go into a debit balance; if it were to be in a debit position, it would have to be called "contributed deficit," which defies definition because one cannot contribute a negative amount. The debit is not an expense or loss as this is a capital transaction.

A shareholder should be happy despite the decline in retained earnings from this repurchase because the share price has increased 200% from $10 to $30 per share.

P13-22. ***Suggested solution:***

Note that the common shares have a per share value on the books at $30,000,000 / 2,500,000 sh = $12/sh.

Jan. 15	Dr. Common shares (100,000 sh × $12/sh)	1,200,000	
	Cr. Contributed surplus – from repurchases (Type B)		200,000
	Cr. Cash (100,000 sh × $10/sh)		1,000,000
Aug. 20	Dr. Common shares (300,000 sh × $12/sh)	3,600,000	
	Dr. Contributed surplus – from repurchases (Type B) (use entire balance in account $450,000 + 200,000)	650,000	
	Dr. Retained earnings (remainder)	250,000	
	Cr. Cash (300,000 sh × $15/sh)		4,500,000

P13-23. ***Suggested solution:***

Single transaction method:

Repurch.	Dr. Treasury shares	600,000	
	Cr. Cash (20,000 sh × $30/sh)		600,000
Resale 1	Dr. Cash (10,000 sh × $35/sh)	350,000	
	Cr. Contributed surplus – from repurchases and resales (Type B)		50,000
	Cr. Treasury shares (10,000 sh × $30/sh)		300,000
Resale 2	Dr. Cash (10,000 sh × $28/sh)	280,000	
	Dr. Contributed surplus – from repurchases and resales (Type B)	20,000	
	Cr. Treasury shares (10,000 sh × $30/sh)		300,000

P13-24. ***Suggested solution:***

Two-transaction method:
Note that the balance in the common share account of $5,000,000 for 200,000 shares equals $25/sh. In the two-transaction method, the repurchase is the second part of a sell/buy cycle, and the later sales are the beginning of a new sell/buy cycle.

Repurch.	Dr. Common shares (20,000 sh × $25/sh)	500,000	
	Dr. Retained earnings	100,000	
	Cr. Cash (20,000 sh × $30/sh)		600,000
Sale 1	Dr. Cash (10,000 sh × $35/sh)	350,000	
	Cr. Common shares		350,000
Sale 2	Dr. Cash (10,000 sh × $28/sh)	280,000	
	Cr. Common shares		280,000

P13-25. ***Suggested solution:***

a. Journal entries:

May. 1	Dr. Cash (800 sh × $48/sh)	38,400	
	Cr. Treasury shares ($165,000 / 5,000 sh = $33/sh; 800 sh × $33/sh = 26,400)		26,400
	Cr. Contributed surplus on repurchases and resales (Type B) ($38,400 - $26,400 = $12,000)		12,000
Dec. 30	Dr. Retained earnings	51,600	
	Cr. Dividends payable (25,800 sh × $2/sh) (#shares o/s = 30,000 – 5,000 + 800 = 25,800)		51,600
Dec. 31	Dr. Income summary	120,000	
	Cr. Retained earnings		120,000
	This is the closing entry to close the income statement accounts.		

b. Shareholders' equity section of Elgin's balance sheet:

Elgin Company
Balance sheet excerpt (shareholders' equity)
As at December 31, 2015

Common stock, no par, 40,000 authorized, 30,000 issued	$720,000
Contributed surplus on repurchases and resales	37,000*
Treasury shares, 4,200 shares	(138,600)†
Retained earnings	418,400‡
Total shareholders' equity	$1,036,800

* $25,000 + 12,000 = $37,000.
† 5,000 – 800 = 4,200 shares;
$165,000 – $26,400 = $138,600.
‡ $350,000 – $51,600 + $120,000 = $418,400

P13-26. ***Suggested solution:***

a. Journal entries:

Mar. 1	Dr. Cash (2,000 sh × $90/sh)	180,000	
	Dr. Contributed surplus on repurchases and resales (Type B) ($200,000 - $180,000)	20,000	
	Cr. Treasury shares		200,000
May 20	Dr. Common shares ($4,000,000 / 40,000 sh = $100/sh; 500 sh × $100/sh = 50,000)	50,000	
	Cr. Cash (500 sh × $95/sh)		47,500
	Cr. Contributed surplus on repurchases and resales (Type B) ($50,000 - $47,500)		2,500

Dec. 1	Dr. Retained earnings	600,000	
	Cr. Dividends payable preferred A (2,000 sh × $100/sh × 4%)		8,000
	Cr. Dividends payable preferred B (1,000 sh × $100/sh × 4%)		5,000
	Cr. Dividends payable common ($600,000 - $8,000 - $5,000 = $587,000)		587,000
Dec. 31	Dr. Other comprehensive income	50,000	
	Cr. Accumulated other comprehensive income		50,000
	This is the closing entry to close the other comprehensive income account.		
Dec. 31	Dr. Income summary	1,000,000	
	Cr. Retained earnings		1,000,000
	This is the closing entry to close the income statement accounts.		

b. Shareholders' equity section of Liway's' balance sheet:

Liway's Cleaning Emporium Corp.
Balance sheet excerpt (shareholders' equity)
As at December 31, 2016

Preferred shares A, $100, 4% cumulative, 10,000 authorized, 2,000 issued and outstanding	$ 200,000
Preferred shares B, $100, 5% non-cumulative, 10,000 authorized, 1,000 issued and outstanding	100,000
Common stock, no par, 50,000 authorized, 39,500 issued and outstanding	3,950,000^
Contributed surplus on repurchases and resales	82,500*
Treasury shares, 0 shares	0†
Retained earnings	1,800,000‡
Accumulated other comprehensive income	350,000#
Total shareholders' equity	$6,482,500

^ 40,000 - 500 = 39,500;
$4,000,000 - $50,000 = $3,950,000.
* $100,000 - $20,000 + 2,500 = $82,500.
† 2,000 – 2,000 = 0 shares;
The $0 balance would be shown in the comparative balance sheet as an amount was outstanding at the end of the previous year.
‡ $1,400,000 – $600,000 + $1,000,000 = $1,800,000.
# $300,000 + $50,000 = $350,000.

P13-27. ***Suggested solution:***

Scenario 1	Class A	Class B	Common	Total
A entitlement 2015—100,000 × $100 × 4%	$400,000	$ 0	$ 0	$ 400,000
B entitlement 2015—50,000 × $100 × 6%	0	300,000	0	300,000
Remainder	0	0	600,000	600,000
	$400,000	$300,000	$600,000	$1,300,000

Scenario 2	Class A	Class B	Common	Total
A entitlement 2015—100,000 × $100 × 4%	$400,000	$ 0	$ 0	$ 400,000
A entitlement 2014—100,000 × $100 × 4%	400,000	0	0	400,000
B entitlement 2015—50,000 × $100 × 6%	0	300,000	0	300,000
Remainder	0	0	200,000	200,000
	$800,000	$300,000	$200,000	$1,300,000

The Class B shares are non-cumulative and as such are not entitled to the dividend missed in 2014

Scenario 3	Class A	Class B	Common	Total
A entitlement 2015—100,000 × $100 × 4%	$400,000	$ 0	$ 0	$ 400,000
A entitlement 2014—100,000 × $100 × 4%	400,000	0	0	400,000
A entitlement 2013—100,000 × $100 × 4%	400,000	0	0	400,000
B entitlement 2015—Remainder	0	100,000	0	100,000
	$800,000	$300,000	$200,000	$1,300,000

The Class B shares are non-cumulative and as such are not entitled to the skipped dividends in 2013 and 2014. Moreover, they are subordinate to the Class A shares so are only entitled to the remaining funds after the current dividend and dividends in arrears are declared on the Class A shares.

P13-28. ***Suggested solution:***

Number of shares outstanding before stock dividend	400,000 shares
Dividend rate	× 5%
Shares issued as a result of the dividend	20,000 shares
Market value per share	× $7/share
Value of stock dividend	$140,000

Dr. Retained earnings	140,000	
Cr. Common shares		140,000

P13-29. ***Suggested solution:***

($000's)	2013	2014	2015	2016	2017
Total dividends	0	0	$6,000	$17,000	$15,000
Non-cumulative preferred dividends	0	0	500	500	500
Common dividends	0	0	$5,500	$16,500	$14,500
Total dividends	0	0	$6,000	$17,000	$15,000
Cumulative preferred dividends	0	0	1,500	500	500
Common dividends	0	0	$4,500	$16,500	$14,500

If preferred shares are non-cumulative, their shareholders get their entitlement for the year only if any dividends are paid and the balance can go to common shareholders. However, if the preferred shares are cumulative, then all current and arrears dividends must be paid before the common shareholders get any dividends.

P13-30. ***Suggested solution:***

a. Dividends are paid only on shares outstanding just prior to the ex-dividend date. Shares issued but not outstanding are held by Belmont in treasury, and the company does not pay itself. Therefore, the relevant number of shares is 3,800,000, so the amount of dividends equals 3,800,000 sh × $0.50/sh = $1,900,000.

b. Journal entries:

2014 Dec. 15	Dr. Retained earnings	1,900,000	
	Cr. Dividends payable		1,900,000
	Note that this entry requires information on the number of shares outstanding just prior to the ex-dividend date, but it needs to be recorded nonetheless. In other words, this entry uses information in the subsequent events period.		
2015 Jan. 30	Dr. Dividends payable	1,900,000	
	Cr. Cash		1,900,000

P13-31. ***Suggested solution:***

a. Either the stock dividend or stock split would increase the number of shares by 25%. Consequently, the total market value of common shares must be divided by that many more shares.

Number of shares before stock dividend or stock split	10,000,000
Price per share	× $20
Market value of equity	$200,000,000
Number of shares afterward(10,000,000 × 1.25)	÷ 12,500,000
Price per share	$16

b. Equity section of balance sheet after transactions:

Stock dividend	
Common shares, 12,500,000 shares issued and outstanding	$ 96,500,000
Retained earnings ($170,000,000 – $40,000,000)	130,000,000
Total shareholders' equity	$226,500,000
(Stock dividend results in 2,500,000 shares issued at $16/sh or $40,000,000. This amount transfers from retained earnings to common shares.)	
Stock split	
Common shares, 12,500,000 shares issued and outstanding	$ 56,500,000
Retained earnings	170,000,000
Total shareholders' equity	$226,500,000
(no change except for number of shares)	

c. Value of investment in Cardiff:

	Before either transaction	After either transaction
Number of shares held	4,000	5,000
Market price per share	× $20	× $16
Total value of investment	$80,000	$80,000

d. Recommendation to board of directors:
Either a stock dividend or a stock split would result in only cosmetic changes to the balance sheet. In both cases, the number of shares increases by 25%, but total equity in the balance sheet does not change. In the case of a stock dividend, there would be a transfer of $40 million from retained earnings to the common share account, leaving total equity unaffected. However, there are potentially tax consequences for shareholders if the company issues a stock dividend, so a stock split is the preferred option if one or the other option must be chosen. There does not seem to be a compelling reason to increase the number of shares or to decrease the stock price, so I recommend not pursuing either option.

P13-32. ***Suggested solution:***

a.

December 15, 2015		
Dr. HFT investment in RRL shares ($600,000 - $580,000)	20,000	
Cr. Holding gain on HFT investment		20,000
Dr. Retained earnings	600,000	
Cr. Property dividends payable		600,000
December 18, 2015		
Dr. Property dividends payable	600,000	
HFT investment in RRL shares		600,000

b. The fair market value of the RRL shares that each JBI common shareholder receives is $600,000 / 40,000 = $15. (There are 40,000 outstanding common shares in JBI; dividends are not paid to treasury shares (issued shares that are not outstanding).

P13-33. ***Suggested solution:***

Mar. 1	Dr. Preferred shares (100 sh / 1,000 sh × $1,000,000 = $100,000)	100,000	
	Dr. Contributed surplus—from repurchase and cancellation of preferred shares (Type B—use balance available)	10,000	
	Dr. Retained earnings (remainder—$120,000 - $100,000 - $10,000 = $10,000)	10,000	
	Cr. Cash (1,000 sh × $120/sh = $120,000)		120,000
June 30	Dr. Common shares (100,000 sh / 1,000,000 sh × $4,000,000)	400,000	
	Dr. Contributed surplus—from repurchase and cancellation of common shares (Type B)	100,000	
	Cr. Cash (given)		500,000
Nov. 15	Dr. Retained earnings (900,000 sh × 15% × $8/sh)	1,080,000	
	Cr. Common shares		1,080,000
Dec. 15	Dr. Retained earnings (9,000 sh × $4/sh)	36,000	
	Cr. Dividends payable—preferred		36,000

P13-34. ***Suggested solution:***

a.

Feb. 1	Dr. Cash (1,000 sh × $65/sh = $65,000)	65,000	
	Cr. Common shares		65,000
Mar. 1	Dr. Retained earnings (21,000 sh × 5% × $65/sh)	68,250	
	Cr. Common shares		68,250
Apr. 1	Dr. Retained earnings	50,000	
	Cr. Dividends payable—common shares ($50,000 - $18,000 - $25,000 = $7,000)		7,000
	Cr. Dividends payable—class A preferred shares (2,000 × $3 = $6,000 for 2016 + 2,000 × $3 × 2 = $12,000 for 2014 and 2015 = $18,000)		18,000
	Cr. Dividends payable— class B preferred shares (5,000 × $5 = $25,000)		25,000
Apr. 15	Dr. Dividends payable—common shares	7,000	
	Dr. Dividends payable—class A preferred shares	18,000	
	Dr. Dividends payable— class B preferred shares	25,000	
	Cr. Cash		50,000
May 1	Dr. Preferred shares B (1,000 sh / 5,000 sh × $500,000 = $100,000)	100,000	
	Dr. Contributed surplus—from repurchase and cancellation of class B preferred shares	10,000	
	Cr. Cash (1,000 sh × $110/sh = $110,000)		110,000
June 30	Dr. Common shares [1,000 sh / (20,000 sh + 1,000 sh + 1,050 sh) × ($1,300,000 + $65,000 + $68,250)]	65,000	
	Dr. Contributed surplus—from repurchase and cancellation of common shares (Type B)	10,000	
	Cr. Cash (given)		75,000

b. The procedure for recording the 2:1 stock split is a memo entry to note that the number of issued and outstanding shares has changed.

c. The dividends paid to the common shareholders was $7,000. At that time there was 22,050 shares outstanding (20,000 + 1,000 + 1,050), hence the dividend per share was $7,000 / 22,050 sh = $0.32 per share (rounded)

P13-35. ***Suggested solution:***

a.

Feb. 1	Dr. Treasury shares	25,000	
	Cr. Cash (given)		25,000
Mar. 1	Dr. Retained earnings [(10,000 sh – 1,000 sh) × 10% × $22/sh)]	19,800	
	Cr. Common shares		19,800
Apr. 1	Dr. Preferred shares B (1,000 sh / 2,000 sh × $40,000 = $20,000)	20,000	
	Dr. Contributed surplus—from repurchase and cancellation of class B preferred shares ($23,000 - $20,000 = $3,000)	3,000	
	Cr. Cash (1,000 sh × $22/sh = $22,000)		23,000
July 1	Dr. Retained earnings	25,000	
	Cr. Dividends payable—common shares ($50,000 - $18,000 - $25,000 = $7,000)		13,000
	Cr. Dividends payable—class A preferred shares (1,000 × $1 = $1,000 for 2017 + 1,000 × $1 × 3 = $3,000 for 2014, 2015, and 2016 = $4,000)		4,000
	Cr. Dividends payable— class B preferred shares [(2,000 – 1,000) × $2 = $2,000 for 2017 + (2,000 – 1,000) × $2 × 3 = $6,000 for 2014, 2015, and 2016 = $8,000)]		8,000
Aug. 1	Dr. Dividends payable—common shares	13,000	
	Dr. Dividends payable—class A preferred shares	4,000	
	Dr. Dividends payable— class B preferred shares	8,000	
	Cr. Cash		25,000
Sept. 1	Dr. Cash (1,000 sh × $28/sh = $28,000)	28,000	
	Cr. Treasury shares		25,000
	Cr. Contributed surplus—from repurchases and resales—common (Type B) ($28,000 - $25,000 = $3,000)		3,000

b. The dividends paid to the common shareholders was $13,000. At that time there was 19,800 shares outstanding [(10,000 - 1,000 + 900) × 2], hence the dividend per share was $13,000 / 19,800 sh = $0.66 per share (rounded)

c. The total capitalization of the company on August 2, 2017 is $356,000 as set out below

Class A preferred		$ 10,000
Class B preferred	$40,000 - $20,000	20,000
Common	$200,000 + $19,800	219,800
Contributed surplus—common	$5,000 + $3,000	8,000
Contributed surplus—class A		5,000
Contributed surplus—class B	$5,000 - $3,000	2,000
Retained earnings	$135,000 – $19,800 - $25,000	90,200
Total		$355,000

P13-36. ***Suggested solution:***

a. Journal entries for share issuances:

Nov. 6	Dr. Cash	200,000,000	
	Cr. Preferred shares – par value (8m sh × $25/sh)		200,000,000
Dec. 9	Dr. Cash	600,090,000	
	Cr. Common shares (28,920,000 sh × $20.75/sh)		600,090,000

b. Equity issuances are viewed as less risky than financing with debt, as a steady stream of cash outflow is required for debt but not equity. Even preferred shares bearing a stated dividend rate do not obligate the company to pay dividends. Less risk in turn is viewed as a stronger financial position (that is, strong balance sheet). Management can use the proceeds from the share issuances to take advantage of market opportunities, as no further obligations are pending, unless management decides to declare dividends.

c. Amount of dividends to each class of shareholders:

Total dividends declared	$10,000,000
Dividends declared for preferred shares (200m sh × 6% × 2 mths/12mths)	2,000,000
Remainder to common shareholders	$ 8,000,000

P13-37. ***Suggested solution:***

May 1	Dr. Common shares (100,000 sh / 2,000,000 sh × $5,000,000)	250,000	
	Dr. Contributed surplus—from repurchase and cancellation of common shares (Type B—use balance available)	150,000	
	Dr. Contributed surplus—expired options on common shares (Type C—pro rata 100,000 sh / 2,000,000 sh × $200,000)	10,000	
	Dr. Retained earnings (remainder)	90,000	
	Cr. Cash (given)		500,000
July 15	Dr. Preferred shares (1,000 sh × $21/sh)	21,000	
	Cr. Contributed surplus—preferred shares, from repurchases and resales		1,000
	Cr. Cash (given)		20,000
Nov. 1	Dr. Retained earnings (49,000 sh × $2/sh)	98,000	
	Cr. Cash		98,000
	Dr. Retained earnings (1,900,000 sh × 10% × $6/sh)	1,140,000	
	Cr. Common shares		1,140,000

P13-38. ***Suggested solution:***

a.

Scenario 1—IFRS		
June 15, 2015		
Dr. HFT investment in SAL shares ($500,000 - $450,000)	50,000	
Cr. Holding gain on HFT investment		50,000
Dr. Retained earnings	500,000	
Cr. Property dividends payable		500,000
June 30, 2015		
Dr. Property dividends payable	500,000	
HFT investment in SAL shares		500,000

Scenario 2 and 3—IFRS		
June 15, 2015		
Dr. Investment in SAL shares ($500,000 - $450,000)	50,000	
Cr. Holding gain on HFT investment		50,000
Dr. Retained earnings	500,000	
Cr. Property dividends payable		500,000
June 30, 2015		
Dr. Property dividends payable	500,000	
Investment in SAL shares		500,000

b.

Scenario 1—ASPE		
June 15, 2015		
Dr. Investment in SAL shares ($500,000 - $450,000)	50,000	
Cr. Holding gain on SAL investment		50,000
Dr. Retained earnings	500,000	
Cr. Property dividends payable		500,000
June 30, 2015		
Dr. Property dividends payable	500,000	
Investment in SAL shares		500,000

ASPE 3856.12 requires that non-strategic investments in shares quoted in an active market be valued at fair value. This is neither a control nor significant influence situation so ASPE 3831.15 does not apply; the transaction is measured at fair value.

Scenario 2 and 3—ASPE		
June 15, 2015		
Dr. Retained earnings	450,000	
Cr. Property dividends payable		450,000
June 30, 2015		
Dr. Property dividends payable	450,000	
Investment in SAL shares		450,000

In scenario 2 RTC exercises significant influence and the investment is accounted for by the equity method; in scenario 3 RTC has control. In both instances ASPE requires that the dividend be measured at the book value of the investment.

P13-39. ***Suggested solution:***

a.

Scenario 1	Class A	Class B	Common	Total
A entitlement 2015—80,000 × $5.00	$400,000	$ 0	$ 0	$ 400,000
B entitlement 2015—40,000 × $4.00	0	160,000	0	160,000
Remainder	0	0	184,000	184,000
	$400,000	$160,000	$184,000	$744,000

Scenario 2	Class A	Class B	Common	Total
A entitlement 2015—80,000 × $5.00	$400,000	$ 0	$ 0	$ 400,000
B entitlement 2015—40,000 × $4.00	0	160,000	0	160,000
B entitlement 2014—40,000 × $4.00	0	160,000	0	160,000
Remainder	0	0	24,000	24,000
	$400,000	$320,000	$24,000	$744,000

The Class A shares are non-cumulative and as such are not entitled to the dividend missed in 2014

Scenario 3	Class A	Class B	Common	Total
A entitlement 2015—80,000 × $5.00 × 90%	$360,000	$ 0	$ 0	$ 360,000
B entitlement 2015—40,000 × $4.00 × 90%	0	144,000	0	144,000
B entitlement 2014—40,000 × $4.00	0	160,000	0	160,000
B entitlement 2013—40,000 × $4.00 × 50%	0	80,000	0	80,000
	$360,000	$384,000	$0	$744,000

—The Class A shares are non-cumulative and as such are not entitled to the balance of the reduced dividend in 2013 or the skipped dividend in 2014.

—In 2013 Garabedian declared a $280,000 dividend which was 50% of that year's entitlement for the preferred share—80,000 × $5.00 + 40,000 × $4.00 = $560,000; $280,000/$560,000 = 50%.

—Class A shares are entitled to dividends of $400,000 per year—80,000 × $5.00 = $400,000.

—Class B shares are entitled to dividends of $160,000 per year—40,000 × $4.00 = $160,000. Dividends in arrears at the beginning of 2015 for the class B shares total $240,000; $80,000 for 2013 ($160,000 × 50% = $80,000) and $160,000 for 2014.

—$744,000 in dividends is declared in 2015, the first $240,000 of which must be allocated to the Class B dividends in arrears. Thus, $504,000 remains for distribution towards the 2015 entitlement.

—The $504,000 is distributed to the Class A and B shares on a pro-rata basis—$504,000 ($400,000 + $160,000) = 90%; $400,000 × 90% = $360,000; $160,000 × 90% = $144,000

b. Dividends in arrears on the Class B shares after declaration and payment of the 2015 dividends is $16,000 ($160,000 - $144,000 = $16,000).

c.

December 31, 2015		
Dr. Retained earnings	744,000	
Cr. Dividends payable—Common shares		400,000
Cr. Dividends payable—Class A shares		160,000
Cr. Dividends payable—Class B shares		184,000
January 15, 2016		
Dr. Dividends payable—Common shares	400,000	
Dr. Dividends payable—Class A shares	160,000	
Dr. Dividends payable—Class B shares	184,000	
Cr. Cash		744,000

P13-40. ***Suggested solution:***

Mar. 15	Dr. Treasury shares—preferred	115,000	
	Cr. Cash (10,000 sh × $11.50/sh)		115,000
Mar. 28	Dr. Preferred shares (15,000 sh × $10/sh)	150,000	
	Dr. Contributed surplus—preferred shares, from repurchase and resales (Type B) (amount as needed subject to balance available)	30,000	
	Cr. Cash (15,000 sh × $12/sh)		180,000
July 1	Memo entry for stock split: #common shares outstanding increases from 1,000,000 to 4,000,000		
Aug. 1	Dr. Preferred shares (8,000 sh × $10/sh)	80,000	
	Dr. Contributed surplus—preferred shares, from share repurchases and resales (Type B)	12,000	
	Cr. Treasury shares—preferred (8,000 sh × $11.50/sh)		92,000
Dec. 31	Dr. Retained earnings	400,000	
	Cr. Dividends payable on common shares (4,000,000 sh × $0.10/sh)		400,000
	Dr. Retained earnings	25,000	
	Cr. Dividends payable on preferred shares ((50,000 sh – 10,000 sh – 15,000 sh) × $1/sh)		25,000
	Note that it is implied that dividends on preferred shares must have been declared in order for dividends to be declared on common shares.		

P13-41. ***Suggested solution:***

a. Journal entries for 2014:

Jan. 1	Dr. Cash (given)	480,000	
	Cr. Preferred shares		480,000
July 1	Dr. Common shares	1,000,000	
	($6,000,000 / 300,000 sh = $20/sh; 50,000 sh × $20/sh = $1,000,000)		
	Cr. Cash (50,000 sh × $18/sh)		900,000
	Cr. contributed surplus – common shares, from share repurchases and resales (Type B)		100,000
Dec. 31	Dr. Income summary	1,700,000	
	Cr. Retained earnings		1,700,000

b. Equity section of balance sheet, December 31, 2014:

Fenwick Ltd.
Balance sheet excerpt (shareholders' equity)
As at December 31, 2014

Preferred shares – $1.25 cumulative dividend, 40,000 issued and outstanding	$ 480,000
Common shares – 500,000 authorized, 250,000 issued and outstanding	5,000,000 *
Contributed surplus – common shares, from share repurchases and resales	500,000 †
Retained earnings	1,500,000‡
Total liabilities and shareholders' equity	$7,480,000
Note disclosure: The company had $50,000 of dividends in arrears on cumulative preferred shares.	

* $6,000,000 – $1,000,000 = $5,000,000.
† $400,000 + $100,000 = $500,000.
‡ –$200,000 + $1,700,000 = $1,500,000.

c. Journal entries for 2015:

July 1	Dr. Common shares	1,200,000	
	($5,000,000 / 250,000 sh = $20/sh;		
	(60,000 sh × $20/sh = $1,200,000)		
	Dr. Contributed surplus—common shares, from share repurchases and resales (Type B) (balance available)	500,000	
	Dr. Retained earnings (remainder)	100,000	
	Cr. Cash (60,000 sh × $30/sh)		1,800,000
Dec. 31	Dr. Retained earnings (total dividends declared)	400,000	
	Cr. Dividends payable—preferred shares		100,000
	(40,000 sh × $1.25/sh/year × 2 years)		
	Cr. Dividends payable—common shares(remainder)		300,000
Dec. 31	Dr. Income summary	800,000	
	Cr. Retained earnings		800,000

d. Equity section of balance sheet, December 31, 2015:

Preferred shares—$1.25 cumulative dividend, 40,000 issued and outstanding	$ 480,000
Common shares—500,000 authorized, 190,000 issued and outstanding	3,800,000 *
Contributed surplus—common shares, from share repurchases and resales	0 †
Retained earnings	1,800,000‡
Total liabilities and shareholders' equity	$6,080,000

* $5,000,000 – $1,200,000 = $3,800,000.

† This contributed surplus was eliminated as a result of the July 1 repurchase transaction.

‡ $1,500,000 – $100,000 – $400,000 + $800,000 = $1,800,000.

P13-42. ***Suggested solution:***

Continuity schedule for equity accounts (this schedule is not part of the required but is helpful for keeping track of all the numbers); figures in thousands except per-share amounts:

	Common shares							Preferred shares			
	Common stock			Type B CS	Treasury stock			Share capital			Retained earnings
Trx	# sh	$	$/sh	$	# sh	$	$/sh	# sh	$	$/sh	$
Bal.	1,200	$ 9,600	$ 8.00	$ 120	- 320	-$ 1,920	$ 6	700	$ 17,500	$ 25	$ 23,450
(i)				240	160	960	6				
(ii)	- 200	- 1,600	$ 8.00	- 20							
	1,000	8,000	$ 8.00	340							
(iii)								- 175	- 4,375	$ 25	- 875
								525	$ 13,125	$ 25	
(iv)	250	2,250	$ 9.00								
	1,250	10,250	$ 8.20								
(v)	- 160	- 1,312	$ 8.20	352	160	960	6				
	1,090	8,938	$ 8.20	$ 692	$ -	$ -	n/a				
(vi)											- 1,575
	109	1,090	$ 10.00								- 1,090
	1,199	$ 10,028	$ 8.36								$ 19,910

Note: CS = contributed surplus

Journal entries:

(i) Jan. 31	Dr. Cash (160,000 sh × $7.50/sh)	1,200,000	
	Cr. Treasury shares ($1,920,000 × ½)		960,000
	Cr. Contributed surplus—common shares, from share repurchases and resales (Type B)		240,000
(ii) Mar. 30	Dr. Common shares ($9,600,000 / 1,200,000 sh = $8/sh; 200,000 sh × $8/sh = $1,600,000)	1,600,000	
	Dr. Contributed surplus—common shares, from share repurchases and resales (Type B)	20,000	
	Cr. Cash		1,620,000
(iii) June 1	Dr. Preferred shares ($17,500,000 / 700,000 sh = $25/sh; 175,000 sh × $25/sh = $4,375,000)	4,375,000	
	Dr. Retained earnings (remainder)	875,000	
	Cr. Cash (175,000 sh × $30/sh)		5,250,000
(iv) July 13	Dr. Property, plant, and equipment	2,250,000	
	Cr. Common shares (250,000 sh × $9/sh)		2,250,000

(v) Aug. 1	Dr. Common shares ($10,250,000 / 1,250,000 sh = $8.20/sh; 160,000 sh × $8.20/sh = $1,312,000)	1,312,000	
	Cr. Treasury shares ($1,920,000 × ½)		960,000
	Cr. Contributed surplus—common shares, from share repurchases and resales		352,000
(vi) Sept. 30	Dr. Retained earnings (700,000 sh – 175,000 sh) × $1/sh/year × 3 years	1,575,000	
	Cr. Dividends payable—preferred shares		1,575,000
	Dr. Retained earnings (1,090,000 sh × 10% × $10)	1,090,000	
	Cr. Common shares		1,090,000

P13-43. ***Suggested solution:***

Barrie Company Statement of Changes in Equity For the Years Ended 2014 and 2015					
	Common stock	Retained earnings	Appro-priated retained earnings	AOCI	Total
Net income		3,000			
OCI on revaluations		0		500	
Total comprehensive income		3,000		500	3,500
Dividends declared		(1,000)			(1,000)
Appropriation to sinking fund		(1,300)	1,300	0	0
Net change in equity		700	1,300	500	2,500
Balance at Jan. 1, 2014	20,000	11,000	2,000	1,000	34,000
Balance at Dec. 31, 2014	20,000	11,700	3,300	1,500	36,500
Net income		4,000			
OCI on revaluations		0		(200)	
Total comprehensive income		4,000		(200)	3,800
Dividends declared		(1,200)			(1,200)
Appropriation to sinking fund		(400)	400	0	0
Net change in equity		2,400	400	(200)	2,600
Balance at Jan. 1, 2015	20,000	11,700	3,300	1,500	36,500
Balance at Dec. 31, 2015	20,000	14,100	3,700	1,300	39,100

P13-44. ***Suggested solution:***

PICSR Company Statement of Changes in Equity For the Years Ended 2015 and 2016					
In (000's)	Common stock	Retained earnings	Appro-priated retained earnings	AOCI	Total
Net income		$ 4,000			
OCI on revaluations		0		$ 1,000	
Total comprehensive income		4,000		1,000	$ 5,000
Dividends declared		(3,000)			(3,000)
Appropriation to sinking fund		(2,500)	$2,500	0	0
Net change in equity		(1,500)	2,500	1,000	2,000
Balance at Jan. 1, 2015	$50,000	15,000	4,000	(2,000)	67,000
Balance at Dec. 31, 2015	$50,000	$13,500	$6,500	$ (1,000)	$69,000
Net income		6,000			
OCI on revaluations		0		500	
Total comprehensive income		6,000		500	6,500
Dividends declared		(1,500)			(1,500)
Appropriation to sinking fund		(600)	600	0	0
Net change in equity		3,900	600	500	5,000
Balance at Jan. 1, 2016	50,000	13,500	6,500	(1,000)	69,000
Balance at Dec. 31, 2016	$50,000	$17,400	$7,100	$ (500)	$74,000

P13-45. ***Suggested solution:***

Mark's Photography Company Statement of Changes in Equity For the Years Ended 2016 and 2017									
In (000's)	**Common shares**	**Preferred shares**	**Contributed surplus**	**Total capital**	**Retained earnings**	**AOCI from revaluations**	**AOCI from FCTA**	**Total AOCI**	**Total**
Net income					$ 10,000				$ 10,000
OCI on revaluations						$ 3,000		$3,000	3,000
OCI on FCTA					0	0	(2,000)	(2,000)	(2,000)
Total comprehensive income					10,000	3,000	(2,000)	1,,000	11,000
Dividends declared on preferred shares					(2,000)				(2,000)
Dividends declared on common shares					(3,000)				(3,000)
Issuance of common shares	$ 10,000			$ 10,000	0	0	0	0	10,000
Net change in equity	10,000			10,000	5,000	3,000	(2,000)	1,000	16,000
Balance at Jan. 1, 2016	200,000	$100,000	$5,000	305,000	150,000	10,000	12,000	22,000	477,000
Balance at Dec. 31, 2016	$210,000	$100,000	$5,000	$315,000	$155,000	$13,000	$10,000	$23,000	$493,000
Net income					(4,000)				(4,000)
OCI on revaluations						(1,000)		(1,000)	(1,000)
OCI on FCTA					0		2,000	2,000	2,000
Total comprehensive income					(4,000)	(1,000)	2,000	1,000	(3,000)
Dividends declared on preferred shares					(2,000)				(2,000)
Dividends declared on common shares					(1,800)				(1,800)
Redemption of preferred shares	0	(5,000)	500	(4,500)	0	0	0	0	(4,500)
Net change in equity	0	(5,000)	500	(4,500)	(7,800)	(1,000)	2,000	1,000	(11,300)
Balance at Jan. 1, 2017	210,000	100,000	5,000	315,000	155,000	13,000	10,000	23,000	493,000
Balance at Dec. 31, 2017	$210,000	$95,000	$5,500	$310,500	$147,200	$12,000	$12,000	$24,000	$481,700

N. Mini-Cases

Case 1: Peterborough Printers. ***Suggested solution:***
The current economic downturn and longer-term changes in advertising trends necessitate a careful assessment of Peterborough Printers' dividend policy, whether it needs to be revised, and how it should be revised.

Cut in cash dividends
Dividends are very important to (common) shareholders. In addition to the obvious monetary benefit associated with the cash received, shareholders also interpret dividend payments as a signal of a company's financial health. By maintaining (or even increasing) our dividends to shareholders, we (the management team and the board of directors) express our confidence in the future prospects of the company. In contrast, shareholders tend to interpret a cut in dividends as a sign of weakness in the ability of the company to generate sufficient cash to pay those dividends. Of course, in the long run, it is not possible to maintain a perception of strength despite underlying weakness, so it is not advisable to maintain dividend payouts despite existing or impending financial difficulties.

Given the extent of the current recession and the long-term decline in print advertising, I believe it is in Peterborough's interest to cut its dividends to common and preferred shareholders to preserve financial resources to ride out the recession and to help us re-equip for changes in the industry. The recessionary conditions and the trends in our industry are readily apparent, so shareholders should not be overly surprised by a cut in dividends. Indeed, the cut may be welcomed if shareholders believe that the action will help our company stay out of financial difficulties and maintain our competitive position. Ultimately, the impact on our company's share price may not be as dire as might be expected under other circumstances.

Stock dividends
Paying dividends using a company's own stock is an alternative to paying cash. However, stock dividends do not improve shareholders' financial positions because each shareholder just ends up having more shares that are each less valuable. Paying a stock dividend is like cutting up a pie into more slices.

In fact, if we take tax consequences into consideration, stock dividends decrease shareholders' financial position. Shareholders not only receive nothing of significant value from a stock dividend, but also must pay income tax on the value attributable to the stock dividend just as they would pay taxes on cash dividends.

In addition, paying stock dividends is not a credible signal of our (management's) confidence in the company, since paying stock dividends does not require additional financial resources from the company.

A final consideration is the priority of different share classes to dividends. Preferred shareholders must be paid the dividends they are entitled to before common shareholders receive any dividends. This rule applies whether the dividends to common shareholders are in the form of cash or stock. Thus, in order to pay stock dividends to common shareholders, Peterborough

would be required to pay all current dividends and any dividends in arrears on the preferred shares. If we do decide to defer the dividends on the preferred shares, then that would rule out paying any stock dividends to common shareholders.

Since stock dividends do not improve shareholders' financial positions, paying stock dividends does not provide a positive signal to shareholders, and we may ultimately not be able to pay stock dividends. I do not recommend using stock dividends to substitute for cash dividends.

Recommendation
I recommend that we suspend cash dividend payments to both preferred and common shareholders in order to ensure that our company has the best chance of coming out of this recession in a financially healthy position. I also recommend that we do not issue stock dividends as a substitute for cash dividends.

Case 2: Thamesford Tubs. ***Suggested solution:***

At the outset, it is important to understand the company's financial position. The facts provided imply the following summarized balance sheet as at the end of the previous fiscal year:

Assets	$ millions	Liabilities and equity	$ millions
Current assets	$21	Current liabilities	$14
Non-current assets	49	Loan, due in 15 months	20
Total assets	$70	Loan, due in five years	16
		Total liabilities	$50
		Equity	$20

Without question, our company must secure new financing not only before the $20 million becomes due next March, but also before the fiscal year-end, due to the covenants on the $16 million loan. At the end of this fiscal year, the $20 million loan will need to be classified as a current liability, which would result in the current ratio falling far below 1.0. With prior year's figures, the ratio would be $21m / $34m, or 0.62.

If our company is able to agree with the bank prior to the year-end to refinance the loan next March, then we could maintain the long-term liability classification, making it very unlikely that the company would violate the loan covenants. If the company does incur a net loss of $2 million this fiscal year, the debt-to-equity ratio would be around $50m / $18m = 2.78. In the worst case, in which all of the loss reduced current assets (rather than non-current assets), then the current ratio would become $19m / $14m = 1.36.

The drawback of the refinancing option is that the loan would bear a high interest rate of 15% (compared with 8% for the other loan). This higher interest cost makes the preferred share option attractive, since the dividend rate is only 12%. While under normal circumstances the after-tax cost of interest would be much lower than the nominal 15% rate due to the deductibility of interest, the recent losses incurred by the company suggest that the value of these interest deductions would be much smaller. Furthermore, issuing preferred shares would lower the leverage and risk of the company at a time when the company is facing a fairly high risk of distress.

The investment bank also provided an alternative to lower the dividend rate on the preferred shares by 2% if preferred shareholders were given the right to retract the shares. While the lower cost may seem appealing, there are two reasons why this option should not be pursued. First, preferred shareholders are most likely to retract the shares when Thamesford is facing financial difficulties. If they do retract their shares, we would need to secure funds to redeem these shares, exacerbating a difficult situation. The second reason why this alternative is not viable is that these preferred shares could be considered to be liabilities rather than equity. The reason is that these shareholders hold the right to retract, and when they exercise that right, our company has an obligation to redeem those shares.

The final option of issuing common shares is the least risky. However, given our recent performance record, the financial markets are unlikely to value our shares highly. If our management team is confident of its ability to turn around the company, then the present would not be an ideal time to issue common shares.

My recommendation is to proceed with the preferred share issuance at the 12% dividend rate, without the provision for retraction.

Case 3: Equities. *Suggested solution:*

General: There is no single correct solution to this mini case, and different approaches can be taken. Below is one potential solution.

a. There are some constraints on the dividend amount that can be distributed that must be carefully analyzed.

i) **Retained earnings constraint**: Out2B must maintain $2.5 million in retained earnings. The balance in retained earnings is expected to be $7.8 million, so this limits the dividend to $5.3 million.
ii) **Cash-in-hand constraint**: As long as Out2B does not borrow additional money, all the cash-in-hand can be distributed. This restricts the dividend amount to $4.0 million. Practically, however, the company must maintain a certain level of cash for its day-to-day operations, so the actual dividends that can be paid are less than this amount.
iii) **Debt-to-total assets constraint**: The debt-to-equity covenant stipulates that this ratio will not exceed 0.7:1. Currently, the ratio is 0.65:1 as debt is $25.0 million and total assets are $38.7 million. This limits the amount to be distributed to $3.0 million at most. Lowering the assets by $3.0 million will increase the ratio to $25.0/$35.7 = 0.7:1.

Thus, without further actions, currently the maximum cash amount that can be distributed is the lowest of the three amounts, which is $3.0 million.

b) A decision about the amount to distribute is complicated and there are many factors that must be considered. Some of the important issues are discussed below:

i) Last year the firm declared and distributed dividend of $3.3 million. Therefore, simply distributing $3.0 million might not be the optimal solution as firms are usually reluctant to lower dividends. This year Out2B's earnings were higher than last and, as such, reducing the dividend might confuse or upset shareholders.
ii) Even in the absence of constraints, you might not want to recommend a dividend that is at the upper end of the spectrum. While Out2B did well this year, this performance may not be sustainable. If financial results weaken next year it may then have to lower the dividend, which is not desirable.
iii) Another reason not to declare a very large dividend is that it might signal that the company does not have future growth opportunities. Ideally, a company should limit the dividends if the retained capital can be invested in projects that provide high returns to shareholders, such that a larger dividend may be distributed in later years. It is normally only better to distribute excess cash as dividends when the company does not have growth prospects. If Out2B still has good investment opportunities, then you do not want to send the wrong message to shareholders.
iv) Last year's payout ratio was 75% ($3.3 million /$4.4 million); however, maintaining such a payout ratio might create a risk of a reduced dividend in future years for reasons previously discussed.
v) It is essential that after cash dividends are distributed, enough resources remain available for paying short-term liabilities. The current ratio excluding cash equals 1.2:1 ($10.7 million /$9 million), so the firm seems to be able to meet its short-term obligations even if it decides to distribute its cash.
vi) Some companies prefer to use stock repurchases rather than cash dividends as a means for distributing dividends to their shareholders. Given that Out2B has a history of cash dividend distributions, a stock repurchase program might be a viable long-term move to consider, but in the short term, this should not be pursued.

c. Before writing a memo, you need to decide what you will recommend. There are few alternatives:

i) Distribute $3.0 million in cash dividends. This means a reduction in the dividend, and as discussed above, might not be the optimal course of action.
ii) Distribute a cash dividend of $3.0 million, and also a stock dividend of, say, $1.0 million. This facilitates increasing the dividend, while abiding by the constraints. However, stock dividends do not transfer economic benefits to investors, and only increase the number of shares they hold, without changing the fraction of the company they own. Therefore, such solution might not meet with shareholders' approval.
iii) Increase the cash dividend. However, given the constraints, if we wish to pay more cash dividends, then we need to take certain steps. For example, the company can sell investments or fixed assets, and use some of the proceeds to pay down debt. Doing so serves two purposes. First, there will be more cash available to be distributed as dividends, and second, the debt-to-total assets ratio will improve. For example, Out2B could sell $4.0 million of its investments at book value and use $2.0 million of the proceeds to reduce the debt. The debt reduction can be accomplished either by retiring the short-term loan, retiring the bonds

payable, or by paying suppliers ahead of time. The change to the balance amounts is as following:

Cash	+$2 million
Investments	-$4 million
Liabilities	-$2 million

Debt would reduce to $23.0 million, total assets would drop to $36.7 million, and cash would increase to $6.0 million. The debt-to-total assets ratio allows us to distribute a dividend of up to $3.84 million before violating this covenant, and we have sufficient cash to do so. So we are able to declare cash dividends within the range of $3.0 million to $3.84 million ($3.6 million for example) while still satisfying all constraints.

The recommended action must be feasible and not overly costly, however. If, for example, the assets have to be sold quickly, and therefore at prices lower than would be received under normal circumstances, this solution might not be optimal. In addition, early retirement of debt might be costly, as creditors might ask for a premium for agreeing to early retirement. However, if the sale of investments or assets and the use of some of the proceeds to retire liabilities do not entail substantial costs, then this might be a good solution.

There are few more combinations to can consider. If time allows, Out2B can raise more capital which will relax the debt-to-total assets ratio and the cash constraint, but this may be too ambitious in the short term.

To: The Board of Directors
From: John Quinn
Re: Dividend payout recommendations for fiscal 2012
Date: January 17, 2013

Please find my recommendations with respect to the declaration of the annual dividend to be paid on February 8, 2013.

2012 was a good year with projected net income for the year of $5.3 million, which is substantially higher than the $4.4 million reported for the previous year. Last year we distributed a cash dividend of $3.3 million and, given our strong performance, our shareholders expect us to distribute even more this year. As matters now stand, however, our loan covenants effectively restrict the maximum amount that we can pay to $3.0 million.

During my analysis I have developed two strategies that facilitate payment of an increased dividend while still complying with our covenants and not putting our cash position at risk. The first option is to sell $4.0 million of our investments, using $2.0 million to pay down debt. Doing so will improve our debt-to-total assets ratio and leave

us with sufficient cash to pay a maximum of $3.84 million in cash dividends this year and still meet our obligations in a timely manner. Given that last year we distributed cash dividends of $3.3 million, a total dividend of $3.6 million, which is more than last year, is feasible and will likely meet shareholders' expectations.

I strongly recommend against taking steps to facilitate the payment of an even larger dividend, as it is highly desirable to increase our dividends over time. If we irresponsibly increase our dividends now, then during less profitable years, we might find ourselves forced to reduce the dividends, and shareholders normally disapprove of this.

An alternative course of action is to supplement the payment of cash dividends with the distribution of a stock dividend. For example, we could declare a $3.0 million cash dividend and a stock dividend of $1.0 million.

Of the two alternatives, I recommend the first strategy, because, as you know, stock dividends do not provide economic benefit to our shareholders, and should be used only if no other alternatives are available.

I look forward to your decision and will be happy to address any questions you may have.

d) Journal entries:

For the 1st alternative:

Dr. Cash	$4,000,000	
Cr. Investments		$4,000,000

For sale of investments, assuming no gain or loss realized on the sale.

Cr. Short-term loan	$2,000,000	
Cr. Cash		$2,000,000

For using half of the cash realized from the sale of investments to reduce one of our short term liabilities.

Dr. Retained earnings	$3,600,000	
Cr. Dividends payable		$3.600,000

For cash dividends (assuming $3,600,000 are to be distributed).

For the 2nd alternative:

Dr. Retained earnings	$1,000,000	
Cr. Common shares		$1,000,000

For stock dividend

Dr. Retained earnings	$3,000,000	
Cr. Dividends payable		$3,000,000

For cash dividends

For further in-class discussions:

It may be pointed out that this company is a seasonal company and (as such) it is likely that its total debt to total assets ratio may change as a result of the normal cash flow cycle. Usually, companies that sell seasonally need larger amounts of short term debt (in the form of accounts payable and short term loans) while they are building their inventory prior to the selling season. In the near future it may be helpful to do some renegotiation with the bond holders to obtain additional leeway regarding the covenant constraints on this ratio.

