

Chapter 2

Investments in Equity Securities

DESCRIPTION OF CASES AND PROBLEMS

CASES

Case 1

A company increases its equity investment from 10% to 25%. Management wants to compare the equity method and fair-value method in order to understand the affect on the accounting and wants to know which method better reflects management's performance.

Case 2

A company has acquired an investment in shares of another company and members of its accounting department have differing views about how to account for it.

Case 3

This case focuses on the accounting for a long-term investment when the investee is hostile and refuses to co-operate with the investor.

Case 4

In order to maintain his company's earnings growth, the CEO would like to direct a 40% owned investee company to declare a dividend greater than its normal yearly dividend. If the cost method were used, this income manipulation would work if no part of the dividend were treated as a liquidating dividend. It will not work if the equity method has to be used to account for the investment.

Case 5

This case, adapted from the CICA, gives an illustration of a company that has raised money for its operations in several ways (i.e. other than raising common equity) and asks the student to analyze both the accounting issues and methods that should be used to account for various aspects of the business and methods that should be used to account for the various types of investments.

PROBLEMS

Problem 1 (20 min.)

This problem involves the calculation of the balance in the investment account for an investment carried under the equity method over a two-year period. Then, journal entries are required to reclassify and account for the investment as FVTPL for the third year.

Problem 2 (20 min.)

This problem involves the preparation of journal entries for a FVTPL investment for one year. In year 2, journal entries are required to reclassify and account for the investment as a held-for-significant-influence investment.

Problem 3 (30 min.)

This problem involves the preparation of journal entries over a two-year period for an investment under two assumptions: (a) that it is a significant influence investment and (b) that it is accounted for using the cost method.

Problem 4 (40 min)

This problem requires journal entries, the calculation of the balance in the investment account and the preparation of the investor's income statement under both the equity method and cost method. The investee reports a loss from discontinued operations for the year.

Problem 5 (40 min)

This problem compares the investment account balance, the income per year, and the cumulative income for a three-year period for a 20% investment if it was classified as FVTPL, investment in associate and fair-value-through-OCI.

Problem 6 (30 min)

This problem requires the preparation of slides for a presentation to describe GAAP for publicly accountable enterprises for financial instruments as they relate to FVTPL, fair-value-through-OCI, held-for-significant-influence and held-for-control investments.

Problem 7 (30 min)

This problem requires the preparation of slides for a presentation to describe GAAP for private enterprises for financial instruments as they relate to FVTPL, fair-value-through-OCI, held-for-significant-influence and held-for-control investments.

WEB-BASED PROBLEMS

Problem 1

The student answers a series of questions based on the most recent financial statements of Vodafone, a British company. The questions deal with ratio analysis and investments reported using cost method, equity method and fair-value method.

Problem 2

The student answers a series of questions based on the most recent financial statements of Siemens, a German company. The questions deal with ratio analysis and investments reported using cost method, equity method and fair-value method.

REVIEW QUESTIONS

1. A business combination is an economic event whereby one company unites with or gains control over the net assets of another company. A parent–subsidiary relationship exists when, through an investment in shares, the parent company has control over the subsidiary company. The key common element is the concept of control.
2. A FVTPL investment is reported at fair value with the fair value adjustment reported in net income whereas an investment in an associate is reported using the equity method.
3. A control investment exists if one company can determine another company's strategic operating and financing policies without the co-operation of others. Joint control exists when two or more companies have an agreement that establishes joint control such that no one of them can unilaterally determine the joint venture's strategic operating and financing policies.
4. The purpose of the *IFRS 8: Operating Segments* is to improve the information available to shareholders and investors about the lines of business and geographic areas in which the company does business. Some of this information is lost in the aggregation process of consolidation, and the disaggregation of segment reporting is valuable for detailed analysis.
5. The equity method should be used to report an investment when the investor has significant influence over the investee, which is called an associate. The ability to

exercise significant influence may be indicated by, for example, representation on the board of directors, participation in policy-making processes, material intercompany transactions, interchange of managerial personnel or provision of technical information.

6. The equity method records changes in the investee's equity balance on the books of the investor. The investee's equity is increased by income and decreased by dividends. Therefore the investor records an increase in its equity account balance when the investee earns income, and records a decrease when the investee pays dividends.
7. A significant influence investment is one where an investor owns enough voting shares of an investee to significantly influence, but not control, its strategic operating and financing policies. The ability to exercise significant influence may be indicated by, for example, representation on the board of directors, participation in policy-making processes, material intercompany transactions, interchange of managerial personnel, or provision of technical information. If the investor holds less than 20% of the voting interest in the investee, it is presumed that the investor does not have the ability to exercise significant influence, unless such influence is clearly demonstrated. On the other hand, the holding of 20% or more of the voting interest in the investee does not in itself confirm the ability to exercise significant influence. A substantial or majority ownership by another investor would not necessarily preclude an investor from exercising significant influence.
8. The Ralston Company could determine that it was inappropriate to use the equity method to report a 35% investment in Purina in two separate types of circumstances. For example, if another shareholder group existed that owned up to 65% of Purina's voting shares, Ralston could argue that its ownership did not provide significant influence over Purina. In this case, Ralston would likely report the investment as a FVTPL investment and report it at fair value. Alternatively, Ralston might argue that its 35% ownership established control over Purina. This would occur if, for example, Ralston also owned convertible preferred shares that, if converted, would increase its voting share ownership to greater than 50%. In this case, Ralston would argue that it should consolidate Purina.
9. The FVTPL would have been reported at fair value. The fair-value carrying value on the date of the change becomes the cost of the existing shares. The cost of the new shares

is added to the carrying value of the previously held shares. The sum of the previous fair-value carrying value plus the cost of the new shares becomes the total cost of shares when calculating the acquisition differential.

10. An investor should report its share of an investee's other comprehensive income in the same manner that it would report its own other comprehensive income. Thus the investor's percentage should be reported on a separate line below operating profit, net of tax, and full disclosure should be provided. However, the investor's measure of materiality should be used to determine whether or not the item is sufficiently material to warrant separate presentation.
11. In this case, Ashton's share of the loss of Villa (\$280,000) exceeds the cost of its investment in Villa (\$200,000). The extent of loss recognized by Ashton depends on whether it has legal or constructive obligations or made payments on behalf of Villa. For example, Ashton may have guaranteed the liabilities of Villa such that if not paid, Ashton would have to pay on their behalf. In this case, Ashton would record $40\% \times \$700,000$ or \$280,000 as a reduction of the investment account and as a recognized loss on the statement of operations. The investment account will now have an \$80,000 credit balance, and could be reported in Ashton's long-term liability section. However, if Ashton does not meet any of the conditions above with respect to the liabilities of Villa, losses would only be recognized to the extent of the investment account balance (i.e. a \$200,000 loss would be recognized and the investment account balance would be reduced to zero) and Ashton would resume recognizing its share of the profits of Villa only after its share of the profits equal the share of losses not recognized (\$80,000 in this case).
12. Able would reduce its investment account by the percentage that was sold, and record a gain or loss on disposition. It would then reevaluate its reporting method for the investment. If significant influence still exists, it should report using the equity method. If it no longer exists, Able should report using the fair value method.
13. The investor must disclose its share of the profit or loss of associates along with the carrying amount of its investment in associates. In addition, the following should be disclosed:

- a) the fair value of investments in associates for which there are published price quotations;
- b) summarized financial information of associates, including the aggregated amounts of assets, liabilities, revenues and profit and loss;
- c) the reasons why the investor does have significant influence even though it owns less than 20 per cent of the voting or potentially voting power of the investee;
- d) the unrecognized share of losses of an associate, both for the period and cumulatively, if an investor has discontinued recognition of its share of losses of an associate; and
- e) the share of the contingent liabilities of an associate incurred jointly with other investors; and those contingent liabilities that arise because the investor is severally liable for all or part of the liabilities of the associate.

14. Private enterprises may elect to account for investments in associates using either the equity method or the cost method. The method chosen must be applied consistently to all similar investments. When the shares of the associate are traded in an active market, the investor cannot use the cost method; it must use either the equity method or the fair value method.

15. IFRS 9 requires that all nonstrategic equity investments be valued at fair value including investments in private companies. Under IAS 39, investments that did not have a quoted market price in an active market and whose fair value could not be reliably measured were reported at cost. This provision no longer exists under IFRS 9.

MULTIPLE-CHOICE QUESTIONS

- 1. b
- 2. c
- 3. c
- 4. c $100 + .25(120 - 80) = 110$
- 5. c $.25(80) + (115 - 100) = 35$
- 6. a (answer would be \$5,280,000 assuming the use of the equity method)
- 7. c

8. c dividend in year 5 is a liquidating dividend which is recorded in profit as with non-liquidating dividends
9. d $90 \times 20\% = 18$
10. c Investment income = $525 \times 20\% = 105$;
Investment gain from discontinued operations = $83 \times 20\% = 16.6$
11. d
12. c
13. b
14. b
15. b

CASES

Case 1

The investment in Ton was appropriately classified as FVTPL in Year 4 on the assumption that Hil did not have significant influence with a 10% interest.

The reporting of the investment at the end of Year 5 depends on whether Hil has significant influence. *IAS 28* states that the ability to exercise significant influence may be indicated by, for example, representation on the board of directors, participation in policy-making processes, material intercompany transactions, interchange of managerial personnel or provision of technical information. If the investor holds less than 20 percent of the voting interest in the investee, it is presumed that the investor does not have the ability to exercise significant influence, unless such influence is clearly demonstrated. On the other hand, the holding of 20 percent or more of the voting interest in the investee does not in itself confirm the ability to exercise significant influence. A substantial or majority ownership by another investor may, but would not automatically, preclude an investor from exercising significant influence.

If Hil does have significant influence as a result of owning greater than 20% of the voting shares, it would adopt the equity method as of January 1, Year 5. The change from the fair value method to the equity method would be accounted for prospectively due to the change in

circumstance. The fair value method was appropriate in Year 4 when Hil did not have significant influence. The equity method is appropriate starting at the time of the additional investment.

The additional cost of the 15,000 shares will be added to the carrying value of the investment as at January 1, Year 5 to arrive at the total cost of the investment under the equity method.

The following summarizes the financial presentation of the investment-related information in the financial statements for Year 5. In the first scenario, the fair value method is used assuming that the investment is classified as FVTPL. In the second scenario, the equity method is used assuming that the investment is classified as significant influence (SI):

	FVTPL	SI
On balance sheet		
Investment in Ton	925,000 ¹	821,667 ²
On comprehensive income statement		
In net income		
Dividend income	112,500 ³	
Equity income		59,167 ⁴
Unrealized gains	50,000 ⁵	
Total	162,500	59,167

Notes:

- 1) $25,000 \times 37 = 925,000$
- 2) $10,000 \times 35 + 525,000 + \text{equity income for Year 5 of } 59,167^4 - \text{dividends received in Year 5 of } 112,500^3 = 821,667$
- 3) $25\% \times 450,000 = 112,500$
- 4) $25\% \times 520,000 - 70,833^6 \text{ for amortization of patents} = 59,167$
- 5) $25,000 \times (37 - 35) = 50,000$
- 6) Cost of investment $(10,000 \times 35 + 525,000)$ 875,000
- Hil's share of net book value of Ton's shareholders' equity
- $(25\% \times [2,600,000 + 500,000 - 450,000])$ 662,500
- Patents 212,500
- Amortization of patents for Year 5 (3 year useful life) 70,833

The fair value method probably provides the best means of evaluating the return on the investment. The dividend income and the unrealized gains are reported in net income. The present bonus scheme considers net income. As such, the unrealized gains are considered when evaluating management's performance. This is appropriate since they represent part of the return earned by Hil during the year. Under the equity method, equity income would be reported in net income and would be considered when evaluating management. The unrealized gains are not reported in net income and would obviously not be considered in evaluating management's performance under the equity method.

Case 2

In this case, students are asked to, in effect, assume the role of a consultant and advise Cornwall Autobody Inc. (CAI) how it should report its investment representing 33% of the common shares of Floyd's Specialty Foods Inc. (FSFI).

Accountant #1 suggests that the cost method is appropriate because it is really just a loan. This might have some validity because Floyd's friend Connelly certainly seems to have come to his rescue. However Connelly's company did buy shares, and there is no evidence that they can or will be redeemed by FSFI at some future date. An investment in shares is not a loan, which would have to be reported as some sort of receivable. While knowledge of the business or the ability to manage it such as might be seen in the exchange of management personnel or technology, might be indicators that significant influence exists and can be asserted, the absence of knowledge of the business and ability to manage do not necessarily mean that there cannot be significant influence. They are not requirements for the use of an alternative such as the cost method.

Accountant #2 feels that the equity method is the one to use simply because the ownership % is over 20%. This number is a quantitative guideline only and whether an investment provides the investee with significant influence over the investee or not depends on facts other than the ownership %. For significant influence, the ability to influence the strategic operating and investing policies has to be present. Representation on the board of directors would be evidence of such ability. There is no evidence of board membership.

Accountant # 3 also suggests the equity method saying that 33% ownership gives them the

ability to exert significant influence. Whether they exert it or not doesn't matter. This part is correct; you do not have to actually exert it. However, owning 33% does not necessarily mean that you possess this ability. Mr. Floyd was the sole shareholder of FSFI before CAI's investment, and we have no knowledge that he has relinquished some of this control to Connelly in return for his bail out.

The circumstances would seem to rule out the three possibilities presented by the accountants. The investment must be reported at fair value. The only choice (and it is a choice) is whether to report the unrealized gains in net income or other comprehensive income. More information is needed to determine whether CAI has other similar investments and what its preference is with respect to the reporting of this type of investment.

Case 3

- (a) This 28% investment has the possibility of being only a significant influence investment (to be accounted for using the equity method) or a fair-value investment. While the ownership is greater than 20%, the ability to influence the strategic operating and investing policies does not seem to be present. There is no board membership or significant intercompany transactions between the two companies. In fact Magno cannot even receive information other than that which is available to the market as a whole. Therefore it seems evident that this investment should be reported at fair value.
- (b) Management would like to use the equity method because it would result in Magno reporting 28% of Grille -To - Bumper's yearly earnings. Under the fair-value method, Magno would report its investment at fair value at each reporting date with unrealized gains reported either in net income or other comprehensive income. The fair-value method would be very expensive to apply because Grille -To - Bumper's shares are not traded in an active market. Some sort of business valuation would have to be performed every year to estimate the fair value of Grille -To - Bumper's shares. The cost involved may not justify the effort.
- (c) If Magno had representation on the board of directors, the investment would be considered to be a significant influence investment. With such membership Magno might be able to influence dividend policy. On the date that it became a significant influence investment, Magno would change to using the equity method on a prospective basis.

Case 4

This case is intended to illustrate that the use of the equity method is appropriate in the presence of significant influence of an investor over an affiliated company.

- (a) The equity method requires the recognition of the proportionate share of the earnings of the affiliated company as investment income of the investor. That is, Progress Technologies Inc. will report investment income based on 40% of the reported earnings of Calgana Corp.

1. Progress – single company earnings	\$10,000
Calgana – equity method – 40% x \$50,000	<u>20,000</u>
	<u>\$30,000</u>

The dividend has no effect on reported earnings.

2. When the equity method is employed, income is recognized by the investor on the basis of the reported earnings of the affiliate. As a result, dividends (whether regular or special) paid by the affiliate have no effect on reported earnings of the investor. These amounts are recorded as a transfer of assets from the affiliate to the investor; only the cash flow effect is reported on the consolidated financial statements of the investor.
- (b) The cost method requires that dividends received from an investment be reported as dividend or investment income by the recipient to the extent declared during the year. A liquidating dividend occurs when cumulative dividends declared since the date of the investment exceed cumulative income earned since the date of the investment. As discussed in the text, under IFRS, receipt of a liquidating dividend should be recorded in the same manner as any other dividends – as part of net income.

1. Progress - single company earnings	\$10,000
Calgana - cost method - 10,000 shares at \$.50 per share	<u>5,000</u>
	<u>\$15,000</u>
2. Regular dividend – 10,000 shares @ \$.50 per share	\$5,000
Additional dividend - 10,000 shares @ \$3.00 per share	<u>30,000</u>
Total dividends since investment by Progress	35,000

Progress - single company earnings

10,000

\$45,000

- (c) The equity method is a basis of accounting for long-term investments whereby the investment is initially recorded at cost and the carrying value adjusted thereafter to include the investor's pro rata share of post acquisition earnings of the investee, computed by the consolidation method. The amount of the adjustment is included in the determination of profit by the investor and the investment account of the investor is also increased or decreased to reflect the investor's share of capital transactions and changes in accounting policies and corrections of errors relating to prior period financial statements applicable to post acquisition periods. Profit distributions received or receivable from an investee reduce the carrying value of the investment.

An investor may be able to exercise significant influence over the strategic operating and financing policies of an investee even though the investor does not control or jointly control the investee. The ability to exercise significant influence may be indicated by, for example, representation on the board of directors, participation in policy-making processes, material intercompany transactions, interchange of managerial personnel, or provision of technical information (*IAS 28*).

The equity method is appropriate for a number of reasons. First, the equity method results in income being reported when it is actually earned within a group of companies; the earnings process is substantially complete at the time the earnings are reported by the investee, and it is not necessary to wait until dividends are paid to recognize income. Second, use of the equity method prevents the manipulation of earnings.

Case 5

(a)

Memorandum

To: Partner

From: CA

Subject: Penguins in Paradise (PIP)

Many users will be relying on the financial statements. Most significantly, equity investors will

be relying on the financial statements to calculate their participation payment. They will want accounting policies that maximize profit. In addition, they will want to ensure that PIP's operations, particularly its costs, are being efficiently controlled. The bank will also be relying on the financial statements to ensure that the operations are under control. They will likely want to see statements that maximize income (minimize losses) and show positive cash flows. The promoter will be relying on the financial statements in calculating his participation payment. Like all the other investors, he will want profit to be high in order to maximize his own income.

In setting the accounting policies, the client must bear in mind that in this situation they will have a direct impact on PIP's cash flows. Cash flows will be very important in the first stages of the life of the play, a period in which expenses will exceed revenues. Early recognition of expenses will decrease profit, and the participation payments that are based on operating profits. I recommend that the accounting policies be set in accordance with generally accepted accounting policies (GAAP). Future profits are uncertain. To be conservative, items should be expensed now and revenues should be recognized once production of the play commences.

Limited partners

The investor contributions to the limited partnership should be shown as "partners' capital" in the shareholders' equity section of the balance sheet. The investors are entitled to the residual interest of the entity after all debt holders have received the interest.

Royalty rights

Accounting for the royalty right payments to PIP is very important because of the impact this amount will have on the participation payments to investors.

First, it must be determined whether the amount paid to PIP for the royalty rights is an income item or a capital item. A royalty payment is very similar to a dividend. The investors will receive a royalty (or participation) payment that is based on their initial contribution. The payment that they receive could also be considered a return of their investment. Both of these facts imply that the payments to PIP by the investors are on account of capital.

On the other hand, in order for the investors to earn a royalty, the critical event that must take place is the production of the play. The cost of producing the play is the cost of earning the income. In addition, the original contributions will not be refunded to the investor.

If the amount paid to PIP by the investors is considered to be on account of income, it is important to determine the period in which the amount should be recognized. The critical event here is the signing of the contract. Also, no future services have to be provided. These facts suggest that the amount should be recognized as income immediately.

However, if profit is earned and a royalty payment is made by PIP, it will be based on future profit. Expenses will be incurred in the future and therefore, the amount paid to PIP by investors should be matched to the period in which the expense is incurred. In addition, by recognizing the investors' payments to PIP as income in future periods, we would obtain a better matching of expenses since the production is in a future period. I recommend that the investor payments to PIP be treated as income and recognized in future years.

To help avoid interpretation problems in the future, "true operating expenses" must be defined. The definition will help clarify what types of expenses are deductible and what types of revenues must be included in income.

Sale of reservation rights

The timing of recognition of the fees earned from selling reservation rights must be determined. The amount relates to the future performance of the play, that being in Year 2. If the play is cancelled, the theatregoers will ask for a refund of their reservation fee. Therefore, there is a case for future recognition. Arguments favoring recognition in Year 1 include the fact that the critical event is selling the reservation rights, and that the amount is non-refundable. In addition, the amount paid cannot be applied against future ticket prices and no future services are to be rendered.

Since the play must run in a future year to avoid having to repay the reservation fee, the reservation fee should be recognized as revenue in Year 2. Doing so will reduce income for maximize the current year and reduce the participation payment in the current year.

Sales of movie rights

The payment received for the sale of the movie rights can be taken into income in the current year because there is no direct tie to future expenses or events. Alternatively, the amount that was paid is based on the success of the play, and should be taken into income in future periods.

Government grant

We must determine whether the government grant is attributable to income or capital. The treatment of this amount will affect the royalty payment. If the amount is taken into income immediately, the participation payments will increase. If the amount is offset against an asset that is depreciated, then the participation payments derived from the grant will be paid over time. If the grant is tied to hiring Canadians to perform in the play, then the amount should be credited against the related expense.

If the grant has to be spent on costumes and sets made in Canada, then the amount should be netted against the related assets. The grant should be recognized when it becomes payable, not when it is collected.

In order to decide how this amount should be recognized, we must determine what the 50% content rule pertains to – against what purchase should it be offset? We must also determine the length of time that the rules apply in case the amount has to be repaid at a later date.

Bank Loan

We must determine how to record the payment to the bank that is based on the play's success. The 5% that is payable as well as an accrual based on expected future profits could be expensed. Alternatively, just the 5% amount could be expensed because the remaining balance that would have to be paid is uncertain and difficult to determine.

Start-up costs

Generally, we must determine whether start-up costs fit the definition of "true operating expenses". If not, then the royalty payment to investors will not be based on profit for financial statement reporting purposes.

Salaries and fees miscellaneous

Given that these expenses are incurred in the start-up of the operations, the amounts can be recognized in either the current year or future years. Arguments can be made for either treatment. There is no certainty of the play succeeding and so, to be conservative, the amount should be expensed in the current period. On the other hand, the amounts do relate to production in future years, and in order to match expenses with revenues, the amounts should be expensed in future periods.

Costumes and sets

The costumes and sets can be expensed either in Year 1 or in future periods. Prudence would dictate that the amount should be expensed immediately because there is no certainty the play will succeed. However, the costumes and sets do relate to production in future years. Capitalizing the amount and recording depreciation in future years will provide a better matching of revenues and expenses.

Insurance

The insurance premiums that are currently being paid can be either capitalized or expensed. The term insurance has no future value or any impact on revenues, and it should be expensed in the period incurred. An argument for capitalizing the costs is that the cost was incurred to secure financing which will benefit future production. Given the investors' objective of maximizing their initial losses, and maximizing future years' income, the amount should be expensed in the current period.

Promoter's fees

We must determine what amount, if any, should be accrued for the promoter's fees. At present, the payment is too uncertain; thus, the amount should be accounted for in the year that an amount becomes payable.

(b)

(i) investor in Limited Partnership units

The limited partnership units represent an equity interest in the business. In order to determine the appropriate accounting for the units, it is necessary to determine how the investment would be classified. The potential classifications are FVTPL, fair-value-through OCI, significant influence, joint control, or control. In order to further determine the appropriate classification, it is necessary to determine the extent to which control or significant influence might exist over the strategic operating and financing policies of the partnership.

In a limited partnership, the general partner usually makes the key operating and financing decision; the other investors usually have very little say in the operating and financing policies of the entity. As such, the limited partners would not likely have control, joint control or significant influence. Since the units are not actively traded, determining the fair value will be difficult. The investor may prefer to report the investment as fair-value-through OCI so that profit is not affected by the subjective assessment of the fair value.

(ii) investor in royalties

The investments in royalties give the investors the right to participate in the operating profits of the plays. They would not enable the investor to have any influence or control over the operating and investing policies of the partnership and generally do not have any characteristics of equity. On this basis, they would NOT be classified as held for trading, available for sale or significant influence, control, or joint control investments. The investment has the characteristics of an intangible asset. It is a right that enables participation in future profits. Further, the plays likely have a definite timeline over which they will be offered. Assuming that the amount paid for these royalties can reasonably be recovered, they would be capitalized as finite life intangible assets and amortized over the life of the play. They would also be analyzed for impairment on an annual basis.

(iii) investor in movie rights

The investments in movie rights give the investors the right to receive profits from the creation of motion pictures from the content of the plays. They would not enable the investor to have any influence or control over the operating and investing policies of the partnership and generally do not have any characteristics of equity. On this basis, they would NOT be classified as held for trading, available for sale or significant influence, control, or joint control investments. The investment has the characteristics of an intangible asset. It is a right that enables the holder to earn profit from the content of the plays at a future date. Further, the timeline over which the profits will be earned is not known since the movie must be produced and released before profit can be earned. On this basis the movie rights would generally be accounted for as an indefinite life intangible. It is important also to consider that the investment must be analyzed for impairment on an annual basis. This would be complicated by the difficulty in determining the extent and likelihood of potential future profits from the rights.

PROBLEMS

Problem 1

Part A

Investment Account

January 1, Year 5	650,000
Plus:	
Carter's Year 5 profit	95,000

Anderson's percentage ownership	20%	19,000
Less:		
Dividends	50,000	
	20%	<u>(10,000)</u>
December 31, Year 5		659,000
Plus:		
Carter's Year 6 profit	105,000	
Anderson's percentage ownership	20%	21,000
Less:		
Dividends	50,000	
	20%	<u>(10,000)</u>
December 31, Year 6		<u>670,000</u>

Part B

(a)	Investment in Carter	30,000	
	Unrealized gain on FVTPL investment		30,000
	(20,000 x 35 – 670,000)		
(b)	Cash (50,000 x 20%)	10,000	
	Dividend income		10,000

Record dividend revenue for Anderson's share of dividends declared by Carter

	Cash (20,000 x 37)	740,000	
	Investment in Carter		700,000
	Gain on sale		40,000

Sale of investment in Carter

Problem 2

Year 5

Investment in Robbin	275,000
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Cash		275,000
Cash (40,000 x 20%)	8,000	
Dividend income		8,000
Investment in Robbin (20,000 x 15 – 275,000)	25,000	
Unrealized gain on FVTPL investment		25,000
Year 6		
Investment in Robbin (90,000 x 20%)	18,000	
Investment income		18,000
<i>Share of Robbin's income</i>		
Cash (40,000 x 20%)	8,000	
Investment in Robbin		8,000
<i>Baskin's share of dividends declared by Robbin</i>		
Cash (20,000 x 16)	320,000	
Investment in Robbin (275 + 25 + 18 - 8)		310,000
Gain on sale		10,000
<i>Sale of investment in Robbin</i>		

Problem 3

(a)

January 1, Year 5

Investment in Stergis	1,500,000
Cash	1,500,000
To record purchase of 30% of Stergis.	

December 31, Year 5

Investment in Stergis	12,600
Investment Income	12,600
To record 30% of Stergis's Year 5 net income.	

$$30\% \times 42,000 = 12,600$$

Investment in Stergis	3,000	
OCI - Investment income		3,000

To record 30% of Stergis's Year 5 OCI

$$30\% \times 10,000 = 3,000$$

Cash	18,000	
Investment in Stergis		18,000

To record 30% of Stergis's Year 5 dividends.

$$30\% \times 60,000 = 18,000$$

December 31, Year 6

Investment in Stergis	36,000	
Investment income		36,000

To record 30% of Stergis's Year 6 net income.

$$30\% \times 120,000 = 36,000$$

Investment in Stergis	7,500	
OCI - Investment income		7,500

To record 30% of Stergis's Year 6 OCI

$$30\% \times 25,000 = 7,500$$

Cash	18,000	
Investment in Stergis		18,000

To record 30% of Stergis's Year 6 dividends.

$$30\% \times 60,000 = 18,000$$

(b)

January 1, Year 5

Investment in Stergis	1,500,000
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Cash	1,500,000
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To record purchase of 30% of Stergis.

December 31, Year 5

Cash	18,000*
Dividend revenue**	18,000

*To record 30% of Stergis's Year 5 dividends**

**30% x 60,000 = 18,000*

December 31, Year 6

Cash	18,000
Dividend revenue	18,000

To record 30% of Stergis's Year 6 dividends.

** Note that under the guidance of the revised IAS 27, when applying the cost method, all dividends are recorded as revenue when received regardless of whether they represent liquidating dividends.

Problem 4

Part A Equity method

(a)	Investment in Saltspring	234,000	
	Cash		234,000

To record 30% investment in Saltspring

Cash (30% x 100,000)	30,000	
Investment in Saltspring		30,000

Dividends received

Investment in Saltspring (30% x 260,000)	78,000	
Investment loss – discontinued operations	9,000	
Investment income (30% x 290,000)		87,000

To record 30% of Saltspring's profit and discontinued operations

(b)	Investment cost Jan. 1, Year 6	234,000
	Dividends received	(30,000)
	Share of income	<u>78,000</u>
	Investment account Dec. 31, Year 6	<u>282,000</u>

(c)

Pender Corp
Statement of Operations
Year ended December 31, Year 6

Sales	900,000
Investment income	<u>87,000</u>
	987,000
Operating expenses	<u>600,000</u>
Income before discontinued operations	387,000
Investment loss – disc. operations	<u>9,000</u>
Profit	<u>378,000</u>

Part B Cost method

(a)	Investment in Saltspring	234,000	
	Cash		234,000
	<i>To record 30% investment in Saltspring</i>		

Cash	30,000	
Dividend income		30,000
<i>Dividends received</i>		

(b)	Investment account balance December 31, Year 6	<u>234,000</u>
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(c)

Pender Corp
Statement of Operations
Year ended December 31, Year 6

Sales	900,000
Investment income	<u>30,000</u>
	930,000
Operating expenses	<u>600,000</u>
Profit	<u>330,000</u>

Part C

Pender would want to use the equity method if its bias were to show the highest return on investment since the equity method takes into account the full increase in value of the investee (i.e. recognizes proportion of income earned for the year) whereas the cost method only recognizes income to the extent of dividends received.

Cost method return on investment = $\$30,000 / \$234,000 = 12.8\%$

Equity method return on investment = $(\$87,000 - \$9,000) / \$234,000 = 33.3\%$

Problem 5

(a)

(i)	20,000 x 20		400,000
(ii)	Original cost	340,000	
	share of income (20% x (200,000 + 225,000))	85,000	
	less: share of dividends (20% x (150,000 + 160,000))	<u>(62,000)</u>	363,000
(iii)	20,000 x 20		400,000

(b)

(i)	Year 4	Year 5	Year 6	Total
Dividend income (1)	30,000	32,000	35,000	97,000
Gain on sale (2)	<u>20,000</u>	<u>40,000</u>	<u>60,000</u>	<u>120,000</u>
Net income	<u>50,000</u>	<u>72,000</u>	<u>95,000</u>	<u>217,000</u>
Total OCI	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

(ii)	Year 4	Year 5	Year 6	Total
Equity income (3)	40,000	45,000	48,000	133,000
Gain on sale (4)	<u>0</u>	<u>0</u>	<u>84,000</u>	<u>84,000</u>

Net income	<u>40,000</u>	<u>45,000</u>	<u>132,000</u>	<u>217,000</u>
Total OCI (4)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(iii)	Year 4	Year 5	Year 6	Total
Dividend income (1)	30,000	32,000	35,000	97,000
Gain on sale (5)	<u>0</u>	<u>0</u>	<u>120,000</u>	<u>120,000</u>
Net income	<u>30,000</u>	<u>32,000</u>	<u>155,000</u>	<u>217,000</u>
Other comprehensive income				
Unrealized gain (2)	20,000	40,000	60,000	120,000
Reverse unrealized gains	<u>0</u>	<u>0</u>	<u>(120,000)</u>	<u>(120,000)</u>
Total OCI	<u>20,000</u>	<u>40,000</u>	<u>(60,000)</u>	<u>0</u>

Notes:

1. 20% x dividends paid during year
2. 20,000 x change in share price during year
3. 20% x net income for the year
4. $460 - [340 + (40 + 45 + 48) - (30 + 32 + 35)] = 84$
5. $20,000 \times 23 - 340,000 = 120,000$

(c) The total income over the three-year period is the same for all four situations. This is not unusual in accounting. Although the different methods report different income each year, in the long run, the income is the same under all methods. The total income is usually equal to the difference between cash received and cash paid over the life of the investment which is \$217,000 calculated as follows:

Cash received	
Proceeds from sale	460,000
Dividends received (30 + 32 + 35)	<u>97,000</u>
Total proceeds	557,000
Cash disbursed	
Cost of investment	<u>340,000</u>
Change in cash	<u>217,000</u>

Problem 6

The following slides are presented as a sample answer for this question.

Slide #1

New Rules		
<i>Type</i>	<i>Valuation</i>	<i>Unrealized Gains</i>
FVTPL	Fair value	Net income
Fair-value-through-OCI	Fair value	Other comprehensive income
- FVTPL is preferred method		
- Either method can be used		

Slide #2

Rationale for Fair Value
Fair value is more relevant to most users:
• Provides clearer picture of financial situation
• Improves accountability to users
• Reduces opportunities to manage earnings

Slide #3

Determining Classification of Investment
• Management chooses the classification based on:
- whether the investment is actively managed or not
- how the manager and entity should be evaluated
• General preference of standard setters is to classify as FVTPL

Slide #4

Rationale for Reporting Unrealized Gains
• Report in net income
- When trading in investments is part of operating strategy of firm
- Management should be evaluated on performance
• Report in other comprehensive income
- To avoid short-term fluctuations in net income
- Management should not be evaluated on investments, which are not actively traded

Slide #5

Other Investments	
Type	Valuation
Cost method	At cost
Held for significant influence	Equity method
Held for control	Consolidation
The cost method is used for internal purposes. Investments should not be reported at cost for external reporting purposes.	

Problem 7

The following slides are presented as a sample answer for this question.

Slide #1

Strategic Investments	
Type	Options
Held for control	Consolidation, cost method or equity method
Held for significant influence	Equity method or cost method
* Must use same method for all investments in the class * When shares traded in active market - must report at fair value if planned to use cost method - unrealized gains reported in net income	

Slide #2

Rationale for Flexibility
Cost – benefit considerations
• users may not require or understand the more complex reporting • cost involved in generating the information may be excessive • when shares are actively traded, cost of obtaining fair value information is minimal

Slide #3

Rationale for Fair Value Information
Fair value is more relevant to most users:
• Provides clearer picture of financial situation

- Improves accountability to users
- Reduces opportunities to manage earnings

Slide #4

Not-strategic Investments

- Report at cost when shares not actively traded
- Report at fair value when shares are actively traded
 - unrealized gains reported in net income

Slide #5

Rationale for Reporting Unrealized Gains

- Keep it simple
- OCI does not exist under GAAP for private enterprises

WEB-BASED PROBLEMS

Problem 1

The following was answered using the 2009 Form 20-F of Vodafone which is available on their website under the Investor Relations section.

- (a) Investment in associates as a percentage of total assets 2009 = $34,715/152,699 = 22.7\%$. This information is found on the face of the Balance Sheet.
- (b) Return on investment in associates = $4,091/22,545 = 18.1\%$. This is calculated by taking the company's share of results in associated undertakings (found on face of the Income Statement) divided by the investments in associated undertakings for 2008 (found on the face of the Balance Sheet).
- (c) (i) current ratio = $13,029/27,947 = .466:1$. If the company had used the cost method, it would not have had an impact on the current ratio as neither current assets nor current liabilities would be affected.
- (ii) debt to equity ratio = $(27,947+39,975)/84,777 = .8:1$. If the company had used the cost method, total equity would decrease given that the cumulative addition to net income would be only 75% of what it would be under the equity method given that dividends are only 75% of the net income earned by the associate. Debt would be

unchanged, and therefore the debt/equity ratio would increase if the cost method were used.

(iii) return on equity = $3,080 / 76,471 = 4\%$. If the company had used the cost method, both the numerator and denominator of this equation would decrease by the excess of net income over dividends of the associates (the company's share of them). The equity number would decrease by more as it includes the cumulative amount of income recognized to date. Thus, the return on equity would decrease if the cost method were used.

- (d) In 2009, the company had a loss of 2,383 million from available for sale investments. This is found on the face of the consolidated statement of recognized income and expense on page 74 of the financial statements.
- (e) Unrecognized losses on available for sale investments represents $2,148 / 84,777 = 2.5\%$ of total equity. This dollar amount of unrecognized losses included in accumulated other recognized income and expense is found in Note 22 to the financial statements.
- (f) If available for sale investments had been accounted for as FVTPL since the beginning, there would be no change to the investment account balances as, in both cases, investments are adjusted to fair value each reporting period. Certain equity accounts would change but the total amount of shareholders' equity would change. The accumulated other recognized income and expense (which is where the revaluation of available for sale investments is recorded) would be transferred into retained earnings.

Problem 2

The following was answered using the 2009 financial statements of Siemens which are available on their website under the Investor Relations section.

- (a) Investments accounted for using the equity method as a percentage of total assets 2009 = $4,679 / 94,926 = 4.9\%$. This information is found on the face of the Balance Sheet.
- (b) Return on investments accounted for using the equity method = $(1,946) / 4,679 = -41.6\%$. This is calculated by taking the company's share of income from investments accounted for using the equity method (found on face of the Income Statement) divided by the investments accounted for using the equity method for 2009 (found on the face of the Balance Sheet).

- (c) (i) current ratio = $44,129 / 37,005 = 1.19:1$. If the company had used the cost method, it would not have had an impact on the current ratio as neither current assets nor current liabilities would be affected.
- (ii) debt to equity ratio = $67,639 / 27,287 = \mathbf{2.48:1}$. If the associates' accumulated income exceeded accumulated dividends since the date of acquisition, total equity would decrease under the cost method. Debt would be unchanged, and therefore the debt/equity ratio would increase if the cost method were used. If the associates' accumulated income was less than exceeded accumulated dividends since the date of acquisition, the debt/equity ratio would decrease if the cost method were used.
- (iii) return on equity = $2,497 / 27,287 = \mathbf{9.2\%}$. If the company had used the cost method, the numerator for 2009 would increase because there would be no loss from the investments in associates. The denominator of this equation would likely decrease by the excess of cumulative net income over cumulative dividends of the associates (the company's share of them). Thus, the return on equity would likely increase for 2009. If the associates are usually generating a positive net income, then the return on investment would usually decrease if the cost method were used.
- (d) In 2009, the company reported 72 from available for sale investments. This is found on the face of the consolidated statement of income and expense recognized in equity.
- (e) Unrecognized gains on available for sale investments represents $76 / 27,287 = .3\%$ of total equity. This dollar amount of unrecognized gains included in accumulated other recognized income and expense is found on the face of the consolidated statement of income and expense recognized in equity.
- (f) If available for sale investments had been accounted for as FVTPL since the beginning, there would be no change to the investment account balances as in both cases, investments are adjusted to fair value each reporting period. The equity accounts would change however as the revaluation of held for trading investments is recorded directly to income. Accordingly, accumulated income and expense recognized in equity (which is where the revaluation of available for sale investments is recorded) would decrease by the cumulative revaluations to date and retained earnings would increase by a corresponding amount.