5

Associates and Joint Ventures

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5

Learning Outcomes

After studying this chapter students should be able to:

- explain the conditions required to be an associate of another entity and the accounting treatment for associates;
- explain the conditions required to account for an operation as a joint venture, the different forms the venture can take, and how they should be accounted for;
- prepare consolidated financial statements including an associate;
- prepare consolidated financial statements including a joint venture.

5.1 Introduction

In Chapter 2 we discussed how cost information about investments and investment income is sometimes insufficient to give the investors appropriate information does not just hold good in situations where the investor has control. Where the investor has a degree of influence over the operations of the investment, but not outright control, then there is an argument for saying that the 'normal' method of accounting for investments is inappropriate.

In this chapter we consider the effect on an investor's financial position and performance of its interest in two specific kinds of investments – associates and joint ventures. In both cases, the investor can exercise a degree of influence over the affairs of the investment but cannot direct its operating and financial policies (as is the case with subsidiaries). In these circumstances one of the two alternative forms of accounting may well be appropriate in the consolidated financial statements of the investor. These two forms are *equity accounting* and *proportionate consolidation*.

Section 5.2 looks at accounting for associates and the detailed application of equity accounting. Section 5.3 examines accounting for joint ventures, firstly looking at the types of ventures and how they are accounted for. Proportionate consolidation will be applied in this section. Section 5.4 uses a detailed worked example to illustrate the different impact on financial statements of the three types of accounting for investments we have learned about so far; full consolidation, proportionate consolidation and equity accounting.

5.2 IAS 28 *Accounting for associates*

The IAS 28 defines an associate as:

> An entity, including an unincorporated entity such as a partnership, over which the investor has significant influence and that is neither a subsidiary nor an interest in a joint venture.

The key concept in the definition is 'significant influence'. IAS 28 says that significant influence is the power to participate in the financial and operating policy decisions of the entity but is not control over those policies. The existence of significant influence by an investor is usually evidenced in one or more of the following ways:

- representation on the board of directors,
- participation in policy-making processes,
- material transactions between the investor and the entity,
- interchange of managerial personnel,
- provision of essential technical information.

If an investor holds, directly or indirectly, 20% of the voting rights of an entity, IAS 28 states that there is a presumption that the investor has significant influence over the entity, unless it can be clearly demonstrated that this is not the case.

5.2.1 Equity accounting

IAS 28 requires that associates are accounted for using equity accounting. This is not a method of consolidation, the assets and liabilities of the associate are not aggregated on a line-by-line basis in the group accounts. Instead, only selected items are included in the consolidated financial statement:

The consolidated statement of comprehensive income:

- The investor will include **its share of the results of the associate for the period** in its consolidated statement of comprehensive income (or income statement depending on how the statements have been prepared).
- The share of results is based on the associate's profit after tax, but is included in the consolidated profit before tax in the group accounts.
- The investor will also include its share of any other comprehensive income of the associate in the 'Income from associate, net of tax' section of the income statement.

The consolidated statement of financial position:

- The investor will include one figure within non-current assets in the consolidated statement of financial position, entitled **Investment in associat**e. The balance to be included under this heading is calculated as follows:

Investment at cost; plus
Share of profits or losses since acquisition; plus
Share of any other changes to shareholders' funds e.g. other comprehensive income (maybe from revaluation of non-current assets); less
Impairment of goodwill; less
Dividends received.

This calculation makes sense if we think about the value of the investment to the investor; the investment increases in value as profits are generated and as other gains are recognised, but reduces in value if impairment is required. Dividends received from an associate reduce the value of the associate by the amount of the distribution but this is balanced by an increase to cash in the books of the investor.

Goodwill on acquisition

Note that the starting point for this calculation is cost of investment. This means the value of any goodwill on acquisition is already included. Goodwill is part of the value of investment. It may have to be calculated if any impairment is to be recorded; however, it will not appear under the heading of goodwill in the group statement of financial position. The impairment will simply be deducted from the value of the investment.

Example 5.A

On 1 May 20X6 AB purchased 40% of the share capital of GH for $375,000. The retained earnings of GH at that date were $400,000.

The consolidated financial statements of AB are presented below together with the accounts of GH for the year to 31 May 20X8.

Income statements for the year ended 31 May 20X8	AB	GH
	$000	$000
Profit from operations	1,270	290
Interest paid	(130)	(40)
Profit before tax	1,140	250
Income tax	(140)	(50)
Profit for the period	1,000	200

Statements of financial position as at 31 May 20X8	AB	GH
	$000	$000
Assets		
Non-current assets		
Investment in GH	375	
Other assets	2,100	900
	2,475	900
Capital and liabilities		
Share capital	500	250
Retained earnings	1,875	550
	2,375	800
Liabilities	100	100
	2,475	900

Additional information:

1. GH paid a dividend of $100,000 in the year. AB has incorporated its share of this dividend in profit from operations.
2. Goodwill is impaired by 20% in the year. No impairment was considered necessary in previous years.

Requirement

Prepare the consolidated statement of financial position and consolidated income statement for the AB group for the year ended 31 May 20X8.

Solution

Consolidated Income statement for the year ended 31 May 20X8	AB
	$000
Profit from operations ($1,270 – W1 $23 – W2 $40)	1,207
Interest paid	(130)
	1,077
Share of profit of associate (W3)	80
Profit before tax	1,157
Income tax	(140)
Profit for the period	1,017

Consolidated statement of financial position as at 31 May 20X8	AB
	$000
Assets	
Non-current assets	
Investment in associate (W4)	372
Other assets	2,100
	2,472
Capital and liabilities	
Share capital	500
Retained earnings (W5)	1,872
	$2,372
Liabilities	100
	2,472

Workings

W1 Impairment of goodwill – the impairment is given as a percentage so we will have to calculate goodwill to determine the impairment.

Goodwill on acquisition:

Consideration paid		$375
Net assets acquired:		
Share capital	$250	
Retained earnings at acquisition	$400	
40% acquired		260
Goodwill on acquisition		115

Impairment of goodwill is therefore 20% × £115,000 = $23,000. This will be charged to the group income statement in the year and will reduce the value of the investment:

Dr	Profit from operations	$23,000	
	Cr Investment in associate	$23,000	

Being the impairment of goodwill on associate

W2 40% of the dividend of $100,000 paid by GH will have been received by AB. This is currently included in the profit from operations. Dividends received reduce the value of the investment in associate, and the only figure that should be included in the income statement in respect of the associate is the share of results for the year. The dividend received should be adjusted in the group accounts as:

Dr	Investment in associate	$40,000	
	Cr Profit from operations		$40,000

Being elimination of dividends from the income statement

W3 Share of profit of associate

AB is entitled to 40% of the profit after tax of GH, 40% × $200,000 = $80,000.

W4 Investment in associate

	$000
Cost of investment	375
Plus share of post-acquisition profits 40% × ($550,000 − $400,000)	60
Less dividend received	(40)
Less impairment	(23)
Investment in associate	372

W5 Retained earnings

	Group $000	GH $000
Retained earnings of AB	1,875	
Retained earnings of GH		550
RE of GH at acquisition		(400)
		150
40% group share of GH	60	
Impairment of goodwill	(23)	
Less elimination of dividend	(40)	
	1,872	

5.2.2 Treatment of unrealised profits on intra-group trading

You will already be aware that, under full consolidation, intra-group profits and losses are eliminated in full in the consolidated financial statements.

Example 5.B

Suppose that in the year ended 31 December 20X0 Predator (see Example 5.A) sold goods to Victim having a sales value of $2 million, making a profit of $500,000. 20% of these goods were unsold by Victim at the year-end.

The unrealised profit at the year-end is 20% × $500,000 = $100,000. Therefore, in the consolidated financial statements, this unrealised profit is eliminated from retained earnings and inventories as shown below:

	DR	*CR*
	$'000	$'000
Retained earnings	100	
Inventories		100

In the consolidated income statement, revenue would be reduced by $2 million (removing the intra-group element) and cost of sales by $1.9 million. The net effect of this adjustment is of course to adjust gross profit by $100,000.

However, when we equity account our associate we are not aggregating the assets and liabilities on a line-by-line basis – we don't have its inventories and retained earnings figures included in our statement of financial position. There is no adjustment to remove sales and cost of sales, as we have not aggregated the associate's income statement with the group's income statement.

When we use equity accounting the associate is only reflected in one line in the group income statement and one line in the group statement of financial position therefore any adjusting entries for intra-group trading will have to be affecting either; share of associate's profits or investment in associate. The entry required will depend on which direction the goods are going; to the associate or from the associate.

Sale by parent (or subsidiary) to associate (equity method of consolidation)

If Predator is consolidated using the equity method of consolidation then the inventories of Victim will not appear on the consolidated statement of financial position. Therefore crediting inventories would be inappropriate. The *group share* of the net assets of Victim will appear under the heading 'Investments'. Therefore the correct consolidation adjustment will be:

	DR	*CR*
	$'000	$'000
Retained earnings	50	
Investment in Victim		50

In the consolidated income statement, gross profit would be reduced by $50,000. The issue of whether or not any adjustment should be made to revenue is not made clear in IAS 28 *Investments in associates*. It could be argued that given the margin that is earned on the intra-group sales (25%) then revenue should be adjusted by $200,000 ($50,000 × 100/25). This would lead to a reduction in cost of sales of $150,000 to give the required adjustment of $50,000 to gross profit. Given that Predator makes a profit of 25% on sales, this is the sales value that corresponds to an unrealised profit adjustment of $50,000.

Sale to parent (or subsidiary) from associate (equity method of consolidation)

Where the transaction (using the same details as above) is going in the other direction, the overstated inventories are sitting in the parent's accounts, so inventories are adjusted. The unrealised profit is made by the associate and so the share of the profit of associate is overstated; corrected by:

	DR	*CR*
	$'000	$'000
Share of profit of associate	50	
Inventories		50

Note: If you are only asked to prepare the consolidated statement of financial position then the debit would be straight to retained earnings.

5.3 IAS 31 *Interests in joint ventures*

The IAS states that a joint venture is:

A contractual arrangement whereby two or more parties undertake an economic activity that is subject to joint control.

A joint venture can take a number of forms and the appropriate form of accounting depends on the form of the joint venture. However, IAS 31 states that whatever form the joint venture takes there are two common characteristics:

- Two or more venturers are bound by a contractual arrangement.
- The contractual arrangement establishes joint control.

5.3.1 Accounting for joint ventures

Jointly controlled operations

Some joint ventures do not involve the establishment of an entity that is separate from the venturers themselves, but rather the joint uses of the assets and other resources of the individual venturer. An example given in IAS 31 of such an arrangement is the joint manufacture of an aircraft by two or more entities. In such situations the *individual* financial statements of each entity will show:

- The assets that it controls and the liabilities that it incurs.
- The expenses that it incurs and its share of the income that it earns from the sale of goods or services by the joint venture.

No further adjustments will be required in the consolidated financial statements.

Jointly controlled assets

Some joint ventures involve the joint control and ownership of one or more assets used exclusively for the purpose of the joint venture. IAS 31 gives the joint ownership and control of an oil pipeline by two or more oil companies as an example of this type of joint venture. Accounting is very similar to jointly controlled operations in that, both in the separate financial statements of the venturers and in their consolidated financial statements each venturer will recognise:

- its share of the jointly controlled assets and jointly incurred liabilities, classified according to their nature;
- any liabilities that it has incurred;
- its share of the income generated by the venture, less any joint expenses of the venture;
- any expenses that it has incurred itself in respect of its interest in the joint venture.

Jointly controlled entities

A jointly controlled entity involves the establishment of a corporation, partnership or other entity in which each venturer has an interest. An example given of such a joint venture in IAS 31 is where an entity commences business in a foreign country in conjunction with the government or other agency in that country by establishing a separate entity that is jointly controlled by the entity and the government or agency. IAS 31 provides for two alternative treatments of such ventures in the consolidated financial statements of the investors. In all cases the individual financial statements of the investors will show the contributions made in cash or other assets as an investment in the jointly controlled entity.

5.3.2 Accounting for jointly controlled entities

The recommended treatment for such joint ventures in the consolidated financial statements is that the venturer should use **proportionate consolidation**. IAS 31 states that this best represents the economic reality of the arrangement, which is that the venturer has control over its share of future economic benefits through its shares of the assets and liabilities of the joint venture. Proportionate consolidation may either:

- aggregate the appropriate share of net assets and net income with those of the group on a line-by-line basis (as we did in our earlier example); or
- show separately the appropriate share of net assets and net income on a line-by-line basis.

Example 5.C

GHK prepares its group accounts to 31 December. The accounts for GHK and its fully owned subsidiaries are shown below for GHK excluding its joint venture LM.

GHK acquired its interest in LM in 2006. GHK is one of 4 venturers who exercise joint control over the operations of LM. A contractual agreement details the terms of the arrangement. At the date the interest was acquired the retained earnings of LM totalled $400,000.

The consolidated financial statements of GHK are presented below together with the accounts of LM for the year to 31 December 20X8.

Income statements for the year ended 31 December 20X8	GHK	LM
	$000	$000
Revenue	2,700	1,460
Cost of sales	2,000	1,000
Gross profit	700	460
Net operating expenses	400	200
Profit before tax	300	260
Income tax expense	100	60
Profit for the period	400	200

Statements of financial position as at 31 December 20X8	GHK	LM
	$000	$000
Assets		
Non-current assets		
Property, plant and equipment	1,320	900
Investment in LM	450	-
Current assets	1,770	900
Inventories	100	120
Receivables	730	380
	2,600	1,400
Capital and liabilities		
Share capital	1,000	500
Retained earnings	1,200	700
	2,200	1,200
Liabilities		
Current liabilities	400	200
	2,600	1,400

Additional information:

1. There is no impairment of goodwill.
2. LM paid a dividend of $100,000 in the year to 31 December 20X8. GHK has included its share of this dividend in net operating expenses.
3. GHK incorporates LM in the group accounts using proportionate consolidation.

Requirement

Prepare the consolidated income statement and the consolidated statement of financial position for GHK incorporating the joint venture, LM for the year to 31 December 20X8.

Solution

The share of revenues, costs, assets and liabilities of the JV are aggregated with the group figures. There is no non-controlling interest as only the group share (25% as GHK is 1 of 4 venturers) is included.

Consolidated income statement for the year ended 31 December 20X8	GHK
	$000
Revenue $2,700 + (25% × $1,460)	3,065
Cost of sales $2,000 + (25% × $1,000)	(2,250)
Gross profit	815
Net operating exps $400 + (25% × $200) + W1 $25	(475)
Profit before tax	340
Income tax expense $100 + (25% × $60)	(115)
Profit for the period	225

Statement of financial position as at 31 December 20X8	GHK
	$000
Assets	
Non-current assets	
Property, plant and equipment $1320 + (25% × 900)	1,545
Goodwill (W2)	225
	1,770
Current assets	
Inventories $100 + (25% × $120)	130
Receivables $730 + (25% × $380)	825
	2,725
Capital and liabilities	
Share capital (parent only)	1,000
Retained earnings (W3)	1,275
Liabilities	
Current liabilities $400 + (25% × $200)	450
	2,725

Workings

W1 Elimination of internal dividend

25% of the $100,000 dividend paid by LM has been received by GHK. This must be eliminated by:

Dr	Net operating expenses	$25,000	
Cr	Retained earnings		$25,000

Being the group share of the dividend paid by the JV

The group retained earnings include 25% of the post-acquisitions earnings of the JV so the net impact on retained earnings is nil as we have reduced GHK's retained earnings and increased LM's retained earnings by the same amount. The amount is correctly deducted from the income statement.

W2 Goodwill on acquisition

Consideration paid		$450
Net assets acquired:		
Share capital	$500	
Retained earnings at acquisition	$400	
25% acquired	$900	225
Goodwill on acquisition		225

W3 Retained earnings

	Group $000	LM $000
Retained earnings of GHK	1,200	
Retained earnings of LM		700
RE of LM at acquisition		(400)
		300
25% group share of LM	75	
	1,275	

5.3.3 Treatment of unrealised profits on intra-group trading

When we have used proportionate consolidation, the group share of the inventory of the relevant entity *is* included in consolidated inventory.

Example 5.D

Suppose that in the year ended 31 December 20X0 Predator (see Example 5.B) sold goods to Victim having a sales value of $2 million, making a profit of $500,000. 20% of these goods were unsold by Victim at the year-end. The unrealised profit at the year-end is 20% × $500,000 = $100,000.

Therefore the appropriate journal adjustment would be:

	DR	*CR*
	$'000	$'000
Retained earnings	50	
Inventory		50

In the consolidated income statement, revenue would be reduced by $1 million (50% × $2 million) and cost of sales by $950,000 (50% × $1,900,000). The net effect is to achieve an adjustment of $50,000 at gross profit level.

In the case of proportionate consolidation it makes no difference which way the sale goes (from parent/subsidiary or vice versa), the consolidation adjustment is the same.

5.3.4 Alternative treatment

However, IAS 31 permits an alternative treatment: the interest is consolidated using the equity method, as for associates. If this treatment is adopted, or if the first form of proportionate consolidation is used (see above), then IAS 31 required that entities disclose the aggregate amounts of each of current assets, long-term assets, current liabilities, long-term liabilities, income and expenses related to its interest in joint ventures.

The IASB has continued to permit both the recommended and the alternative treatment of joint ventures: the revised IAS 31 that follows the improvements project is unchanged in this respect. It therefore provides an interesting example of a case where some degree of choice is available to reporting entities.

5.4 The impact of different methods of accounting for investments

Example 5.E

Statement of financial positions of Predator and Victim as on 31 December 20X0

	Predator	*Victim*
	$'000	$'000
Non-current assets		
Investment in Victim	7,200	–
Other	16,500	10,000
Current assets	14,800	8,800
	38,500	18,800
Issued capital ($1 shares)	20,000	12,000
Retained earnings	12,500	3,000
	32,500	15,000
Current liabilities	6,000	3,800
	38,500	18,800

Notes

1. The investment in Victim comprises 6 million shares acquired on 31 December 20X4 when Victim's equity was $13 million (issued capital $12 million plus retained earnings $1 million).
2. Predator sells a product that is used by Victim. The total sales of the product in 20X4 were $1,000,000. None of the goods were in the inventory of Victim at the year-end. However, the trade receivables of Predator and the trade payables of Victim include $100,000 in respect of the sale of these goods.

Income statements for the year ended 31 December 20X0

	Predator	*Victim*
	$'000	$'000
Revenue	9,000	4,500
Operating costs	(4,500)	(2,250)
Investment income	400	–
Profit before tax	4,900	2,250
Income tax expense	(1,300)	(750)
Profit for the period	3,600	1,500

Summarised statements of changes in equity for the year ended 31 December 20X0

	Predator	*Victim*
	$'000	$'000
Opening equity	30,900	14,300
Profit for the period	3,600	1,500
Dividends	(2,000)	(800)
Closing equity	32,500	15,000

We will now prepare the consolidated financial statements of the group under the three possible methods of consolidation: full consolidation, equity method of consolidation and proportionate consolidation.

Consolidated statement of financial position

	Full	*Equity*	*Proportionate*
	$'000	$'000	$'000
Goodwill	700		700
Investment in Victim		8,200	
Other non-current assets	26,500	16,500	21,500
Current assets	23,500	14,800	19,150
	50,700	39,500	41,350
Issued capital	20,000	20,000	20,000
Retained earnings	13,500	13,500	13,500
	33,500	33,500	33,500
Non-controlling interest	7,500	–	–
Current liabilities	9,700	6,000	7,850
	50,700	39,500	41,350

Workings

	Full	*Equity*	*Proportionate*
	$'000	$'000	$'000
1. *Goodwill on consolidation*			
Cost of investment	7,200	7,200	7,200
Share of net assets at date of acquisition	(6,500)	(6,500)	(6,500)
Total goodwill	700	700	700
2. *Investment under equity method*			
Investment at cost		7,200	
Share of post-acquisition profits ($2,000 × 50%)		1,000	
		8,200	
3. *Consolidated retained earnings*			
Predator	12,500	12,500	12,500
Victim [50% ($3 m − $1 m)]	1,000	1,000	1,000
	13,500	13,500	13,500

4. *Current assets*			
Predator	14,800	14,800	14,800
Victim	8,800	–	4,400
Intra-group balance	(100)	–	(50)
	23,500	14,800	19,150
5. *Current liabilities*			
Predator	6,000	6,000	6,000
Victim	3,800	–	1,900
Intra-group balance	(100)	–	(50)
	9,700	6,000	7,850

Notes explaining the methods of consolidation

(a) *Full consolidation* is the method used to deal with most subsidiaries. You should be familiar with the mechanics of this method from previous chapters. This method is also known as *line-by-line consolidation*.

(b) *Equity accounting* (or *one-line consolidation*) deals only with the *group share* of the assets, and so on, of Victim. The group's interest in Victim is shown as one amount in the consolidated financial statements.

(c) Under equity accounting the carrying amount of the investment is based on the underlying assets and liabilities of the investment, plus any goodwill not written off. It can be compared with the full consolidation method as follows:

	$'000
Full consolidation	
Underlying net assets at BS date	15,000
Goodwill	700
	15,700
Non-controlling interest	(7,500)
	8,200
Equity method	
Investment at cost	7,200
Share of post-acquisition profits	1,000
	8,200

Under equity accounting intra-group balances do not cancel out because the assets and liabilities of Victim are not shown in group receivables and payables.

(d) *Proportionate consolidation* is a cross between full consolidation and the equity method. The method is similar to full consolidation in that the assets and liabilities are aggregated on a line-by-line basis. However it is similar to the equity method in that only the group share of assets and liabilities is included and there is no need for a non-controlling interest.

(e) Notice that whatever method of consolidation is used, goodwill and consolidated reserves are the same.

Consolidated income statement

	Full	*Equity*	*Proportionate*
	$'000	$'000	$'000
Revenue	12,500	9,000	10,750
Operating costs	(5,750)	(4,500)	(5,125)
Share of profits of Victim		750	
Profit before tax	6,750	5,250	5,625
Income tax expense	(2,050)	(1,300)	(1,675)
Profit for the period	4,700	3,950	3,950
Attributable to:	$		
Equity holders of the parent	3,950		
Non-controlling interest	750		
	4,700		

Workings

1. *Revenue*

Predator	9,000	9,000	9,000
Victim	4,500		2,250
Intra-group sales eliminated	(1,000)		(500)
	12,500	9,000	10,750

2. *Operating costs*

Predator	4,500	4,500	4,500
Victim	2,250		1,125
Intra-group sales eliminated	(1,000)		(500)
	5,750	4,500	5,125

3. *Share of profits of Victim*

	Equity
	$'000
50% of profit for the period	750

Notice that the principle used here mirrors that used in the statement of financial position. Under full consolidation, income and expenses are aggregated on a line-by-line basis, with full elimination of intra-group transactions. Under the equity method there is one-line consolidation of operating profits, with no elimination of intra-group transactions (unless there is any unrealised profit – see later in the chapter). Under the proportionate consolidation method there is line-by-line consolidation of the group share of Victim's balances, with proportionate elimination of intra-group transactions.

Consolidated statement of changes in equity attributable to equity holders of the parent

	Full	*Equity*	*Proportionate*
	$'000	$'000	$'000
Opening equity	31,550	31,550	31,550
Profit for the period	3,950	3,950	3,950
Dividends – Predator	(2,000)	(2,000)	(2,000)
Closing equity	33,500	33,500	33,500
Working: Opening equity			
Predator	30,900	30,900	30,900
Victim [50% × (14,300 − 13,000)]	650	650	650
	31,550	31,550	31,550

The fairly obvious comment here is that the statement in respect of changes in equity attributable to equity holders of the parent is identical whatever method of consolidation is used.

5.5 Fair values and accounting policies

Where, at the date of acquisition, the fair value of the net assets of an investment that is equity accounted or proportionally consolidated is significantly different from their carrying values in the financial statements of the acquired entity, the initial consolidated carrying values should be based on fair values

In addition, wherever possible the financial statements of the investee entity should be prepared to the same date, and using the same accounting policies, as the rest of the group. If the financial statements are not prepared to the same date, the difference between the dates should be no more than 3 months.

5.6 Summary

This chapter has reviewed the methods of accounting that are appropriate where an investor does not have complete control over an investee's activities. Generally, it is appropriate to use the equity method of accounting for associates. As a general rule of thumb, associate status is often indicated where an investor holds between 20% and 50% of the equity capital of the investee entity.

Joint ventures involve two or more parties in an economic activity subject to joint control. The recommended accounting treatment for jointly controlled entities is proportionate consolidation, but IAS 31 also permits use of the equity method.

Revision Questions 5

Question 1

(a) The following statements refer to a situation where an investing entity (D) seeks to exert control or influence over another entity (E). Assume that D is required to prepare consolidated accounts because of other investments.

(i) if D owns more than 20% but less than 50% of the equity shares in E, then E is bound to be an associate of D.
(ii) if D controls the operating and financial policies of E, then E cannot be an associate of D.
(iii) if E is an associate of D, then any amounts payable by E to D are not eliminated when preparing the consolidated statement of financial position of D.

Which of the above statements are true?

(b) Briefly explain the preferred treatment of jointly controlled entities in accordance with IAS 31 *Interests in Joint Ventures*.

Question 2

On 30 June 20X3, Sugar entered into an agreement with two other investors to establish a new entity, Spice. All three investors subscribed for 1/3 of the equity shares in Spice and each share carries one vote. All three investors appointed two representatives to the six-member board of directors of Spice. All key policy decisions require the agreement of five of the six board members.

The following statements refer to the treatment of the investment in Spice in the consolidated financial statements of Sugar for the year ended 30 September 20X3:

(i) Spice will be treated as a joint venture simply because the three investors hold 1/3 of the shares each.
(ii) Spice will be treated as a joint venture in this case, but only because of the requirement that key policy decisions require the consent of at least five of the directors.
(iii) If Spice carries on a business that is distinct from that of its investors, then it will be consolidated using proportional consolidation.
(iv) Spice is only a joint venture if the requirement that key policy decisions require the consent of five directors is established by contract.

Assuming that the recommended treatment set out in IAS 31 *Interests in Joint Ventures* is used, which of the above statements are true?

Question 3

On 1 January 20X5, CD purchased 30% of the ordinary share capital of EF for $280,000, which gave it significant influence over EF's activities. In the financial year ended 31 December 20X5. EF reported pre-tax profits of $62,000. The tax charge was $20,000. During the financial year ended 31 December 20X5, EF paid a total divided of $5,000 to its shareholders.

In the year ended 31 December 20X6, EF made a pre-tax loss of $18,000, with a tax credit of $4,000. A review of CD's investment in EF at 31 December 20X6 concluded that impairment had taken place. An impairment loss of $45,000 was charged in CD's consolidated financial statements for the year.

Calculate the carrying amount of the investment in EF to be included in CD's consolidated statement of financial position at 31 December 20X6.

Question 4

AB owns a controlling interest in another entity, CD, and exerts significant influence over EF, an entity in which it holds 30% of the ordinary share capital. During the financial year ended 30 April 2005, EF sold goods to AB valued at $80,000. The cost of the goods to EF was $60,000. Twenty-five per cent of the goods remained in AB's inventory at 30 April 2005. Briefly explain how the intra-group trading will be dealt with in the consolidated accounts of AB.

Question 5

The income statements of ST and two entities in which it holds investments are shown below for the year ended 31 January 20X6:

	ST	*UV*	*WX*
	$'000	$'000	$'000
Revenue	1,800	1,400	600
Cost of sales	(1,200)	(850)	(450)
Gross profit	600	550	150
Operating expenses	(450)	(375)	(74)
Profit from operations	150	175	76
Finance cost	(16)	(12)	–
Interest income	6	–	–
Profit before tax	140	163	76
Income tax expense	(45)	(53)	(26)
Profit for the period	95	110	50

Notes

1. *Investments by ST*

Several years ago ST acquired 70% of the issued ordinary share capital of UV. On 1 February 20X5 ST acquired 50% of the issued share capital of WX, an entity set up under a contractual arrangement as a joint venture between ST and one of its suppliers. The directors of ST have decided to adopt a policy of proportionate consolidation wherever appropriate and permitted by International Financial Reporting Standards.

2. *UV's borrowings*
During the financial year ended 31 January 20X6, UV paid the full amount of interest due on its 6% debenture loan of $200,000. ST invested $100,000 in the debenture when it was issued three years ago.

3. *Intra-group trading*
During the year WX sold goods to ST for $20,000. Half of the goods remained in ST's inventories at 31 January 20X6. WX's gross profit margin on the sale was 20%.

Requirement

Prepare the consolidated income statement of the ST group for the year ended 31 January 20X6. (Exam standard questions for **10 marks)**

Question 6

AJ is a law stationery business. In 20X2 the majority of the entity's board of directors were replaced. The new board decided to adopt a policy of expansion through acquisition. The statements of financial position as at 31 March 20X5 of AJ and of two entities in which it holds significant investments are shown below.

	AJ		*BK*		*CL*	
	$'000	$'000	$'000	$'000	$'000	$'000
ASSETS						
Non-current assets						
Property, plant and equipment	12,500		4,700		4,500	
Investments	18,000		–		1,300	
		30,500		4,700		5,800
Current assets						
Inventories	7,200		8,000		–	
Trade receivables	6,300		4,300		3,100	
Financial assets	–		–		2,000	
Cash	800		–		900	
		14,300		12,300		6,000
		44,800		17,000		11,800
EQUITY + LIABILITIES						
Equity						
Called up share capital ($1 shares)		10,000		5,000		2,500
Retained earnings		14,000		1,000		4,300
		24,000		6,000		6,800
Non-current liabilities						
Loan notes		10,000		3,000		–
Current liabilities						
Trade payables	8,900		6,700		4,000	
Tax	1,300		100		600	
Short-term borrowings	600		1,200		400	
		10,800		8,000		5,000
		44,800		17,000		11,800

Notes to the statement of financial positions

1. *Investment by AJ in BK*

On 1 April 20X2, AJ purchased $2 million loan notes in BK at par.
On 1 April 20X3, AJ purchased 4 million of the ordinary shares in BK for $7.5 million in cash, when BK's retained earnings were $1.5 million.
BK is an unquoted entity and so the investment is classified as an available for sale asset in AJ's own accounts. No reliable measure of fair value can be ascertained and so the investment remains at cost in the individual accounts of AJ.

At the date of acquisition of the shares, BK's property, plant and equipment included land recorded at cost of $920,000. At the date of acquisition the land was valued at $1,115,000. No other adjustments in respect of fair value were required to BK's assets and liabilities upon acquisition. BK has not recorded the revaluation in its own accounting records.

2. *Investment by AJ in CL*

On 1 October 20X4, AJ acquired 1 million shares in CL, a book distributor, when the retained earnings of CL were $3.9 million. The purchase consideration was $4.4 million. Since the acquisition, AJ has the right to appoint one of the five directors of CL. The remaining shares in CL are owned principally by three other investors.

No fair value adjustments were required in respect of CL's assets or liabilities upon acquisition. The investment in CL is held at cost (as with BK) as no reliable measure can be made of its fair value.

3. *Goodwill on consolidation*

Since acquiring its investment in BK, AJ has adopted the requirements of IFRS 3 *Business Combinations* in respect of goodwill on consolidation. During March 20X5, it has conducted an impairment review of goodwill. As a result the value of goodwill on consolidation in respect of BK is now $1.7 million.
It is the group's policy to value the non-controlling interest at acquisition at the proportionate share of the fair value of the subsidiary's identifiable net assets.

4. *Intra-group trading*

BK supplies legal books to AJ. On 31 March 20X5, AJ's inventories included books purchased at a total cost of $1 million from BK. BK's mark-up on books is 25%.

Requirements

(a) Explain, with reasons, how the investments in BK and CL will be treated in the consolidated financial statements of the AJ group. **(5 marks)**

(b) Prepare the consolidated statement of financial position for the AJ group at 31 March 20X5.

(20 marks)

(Exam standard question-Total marks = 25)

? Question 7

You are the accountant responsible for training at Develop, an entity with a number of investments throughout the world. A key financial reporting task is to prepare consolidated financial statements and this forms an important aspect of the training of new accountants.

A recently-employed trainee has sent you this memorandum.

I have just attended my first training course and have learned the mechanics of how to treat subsidiaries, associates and trade investments in the consolidated accounts. I'm reasonably comfortable with the numbers, but the concepts baffle me. Why does the exercise of adding together the statement of financial position of our entity with those of our subsidiaries give our shareholders useful financial information? Why do we treat associates differently – I find the concept of adding together all the net assets and showing our share as one amount particularly confusing? I'm happier with the treatment of trade investments, at least I can see that the figure is what we paid to buy the shares. Why not do this for all our investments. I don't need a detailed explanation of the mechanics, which I'm already reasonably happy with.

Requirement

Draft a reply to your trainee that explains the principles underpinning the preparation of consolidated financial statements. You should clearly explain why subsidiaries, associates and trade investments are treated differently and why the information is of benefit to the shareholders of the investor. **(Exam standard question - 10 marks)**

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Solutions to Revision Questions

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Solution 1

(a) The first statement is not true; a simple ownership test does not categorically determine the nature of the relationship between an investor and investee entity. However, the second and third statements are correct.

(b) The preferred treatment for jointly controlled entities is to account for them using proportional consolidation. This involves including the venturer's share of the assets, liabilities, income and expenses, and aggregating that share in the group accounts. As only the appropriate share has been included, there is no need to account for non-ontrolling interest.

Solution 2

The first statement is not true; in all cases the nature of the relationship and the degree of control exerted must be examined in order to assess whether or not a joint venture exists. The other statements are true.

Solution 3

	$'000	$'000
Cost of investment		280
20X5 profit after tax (62 − 20)	42	
20X5 dividend	(5)	
20X6 loss after tax (18 − 4)	(14)	
	23	
Group share = 30% × $23		6.9
		286.9
Less: impairment		(45)
		241.9

Solution 4

Unrealised profit = ($80,000 − $60,000) × 25% = $5,000.

The group share of the figure is 30%:$1,500. The profit and inventory are located in the holding entity, so therefore the adjustment is to consolidated reserves and consolidated inventory.

Solution 5

ST Group: consolidated income statement for the year ended 31 January 20X6

	$'000
Revenue {1,800 + 1,400 + [(600 − 20)/2]}	3,490
Cost of sales [1,200 − (20/2) + 850 + (450/2) + 1(W1)]	(2,266)
Gross profit	1,224
Operating expenses [450 + 375 + (74/2)]	(862)
Profit from operations	362
Finance cost [16 + (12 − 6)]	(22)
Profit before tax	340
Income tax expense [45 + 53 + (26/2)]	(111)
Profit for the period	229
	$'000
Attributable to:	
Equity holders of the parent	196
Non-controlling interest [110 (profit of UV for the period) × 30%]	33
	229

(W1) Provision for unrealised profit
$10,000 × 20% = $2,000.
Fifty per cent of this is treated as realised, and the remainder ($1,000) as unrealised.

Solution 6

(a) AJ owns 80% of the shares of BK, which points to the existence of a parent/subsidiary relationship. Provided that AJ controls the activities of BK (and there is nothing to suggest that it does not have control), AJ will account for its investment in BK as a subsidiary and will prepare consolidated financial statements, using the acquisition method.

AJ acquired 40% of the shares in CL. An investment of 40% in another entity would normally indicate that the investor has a significant influence over (but not control of) the entity's activities. The fact that AJ has the power to appoint one director to the board tends to support this conclusion. Also, the fact that three other investors hold most of the remainder of the shares make it unlikely that another investor in CL would be able to control the entity's activities. AJ will account for CL as an associate using the equity accounting method.

(b) **AJ: Consolidated statement of financial position at 31 March 20X5**

	$'000	$'000
Non-current assets		
Property, plant and equipment [12,500 + 4,700 + 195 (FV)]	17,395	
Goodwill	1,700	
Investment in associate (W3)	4,560	
Other financial assets (W1)	4,100	
		27,755
Current assets		
Inventories [7,200 + 8,000 − 200 (W4)]	15,000	
Trade receivables (6,300 + 4,300)	10,600	
Cash	800	
		26,400
		54,155

Capital and reserves		
Share capital	10,000	
Consolidated reserves (W6)	13,156	
		23,156
Non-Controlling interest (W5)		1,199
Non-current liabilities		
Loan notes [10,000 + 3,000 − 2,000 (intra-group)]		11,000
Current liabilities		
Trade payables (8,900 + 6,700)	15,600	
Tax (1,300 + 100)	1,400	
Short term borrowings (600 + 1,200)	1,800	
		18,800
		54,155

Workings

1. *AJ's investments*

	$'000
As stated	18,000
Purchase of BK's loan notes	(2,000)
Purchase of BK's shares	(7,500)
Purchase of CL's shares	(4,400)
Balance: other financial assets	4,100

2. *Goodwill on consolidation of BK*

	$'000
Purchase consideration	7,500
Share of net assets acquired:	
[5,000 + 1,500 + 195 (FV adjustment)] × 80%	(5,356)
Goodwill as originally calculated	2,144
Impairment loss (balancing figure)	(444)
Goodwill carried forward	1,700

3. *Investment in associate*

	$'000
Purchase consideration	4,400
Group share of post-acquisition profits	
[($4,300 − $3,900) × 40%]	160
	4,560

4. *Intra-group trading*

Total provision for unrealised profit (PURP) = $1 million × 25/125 = $200,000

	$'000	$'000
DR Minority share (20%)	40	
DR Consolidated reserves	160	
CR Consolidated inventories		200

5. *Non-controlling interest*

	$'000
Share of net assets in BK:	
(6,000 + 195) × 20%	1,239
Less: PURP (W4)	(40)
	1,199

6. *Consolidated reserves*

	$'000
AJ	14,000
BK – share of post-acquisition loss:	
(1,500 − 1,000) × 80%	(400)
CL – share of post-acquisition profits:	
(4,300− 3,900) × 40%	160
Impairment loss (W2)	(444)
PURP (W4)	(160)
	13,156

Solution 7

Consolidated financial statements show the resources deployed by a single economic entity and the return generated by those resources. The boundary of the single economic entity is determined by common control. Control is essentially the ability to direct the operating and financial policies of an entity. IAS 27 *Consolidated and separate financial statements* – defines a subsidiary in terms of the ability of the parent to exercise control. That is why a group consists of a parent undertaking and its subsidiary undertakings. Because this single economic entity (comprising more than one separate legal entities) is under common control, it is logical to show one statement of financial position containing 100% of the controlled resources and one income statement containing 100% of the returns earned by those resources. However, a further function of financial statements is to show the interests of the investors in the resources under common control, so the ownership interests section of the statement of financial position needs to separately identify the interests of the parent undertaking's shareholders from those of other 'non-controlling interests' in the economic entity.

It is inappropriate to treat associates and trade investments the way we treat subsidiaries because they are outside the boundary of control. However, associates do qualify for special treatment. Although the parent undertaking cannot control the deployment of resources, it is in a position to exercise a significant degree of influence over their deployment. If they actively exercise this significant influence, then mere inclusion of the amount invested, plus the amounts that happen to be received as dividends, is unlikely to adequately reflect the extent of the investor's interest. Therefore, although full consolidation is inappropriate, because control is not present, a special form of treatment is needed. This treatment, known as the equity method of consolidation, shows the investor's share of the net assets of the associate and its share of the profits.

Trade investments do not qualify for special treatment because control of significant influence is not present. If there is no control or influence over resources, then it is inappropriate to show those resources in any way in the consolidated statement of financial position and it is better to show the initial amount invested. Similarly, if there is not control or influence over the distribution of profits then it is better to restrict amounts included in the consolidated income statement to dividends received.