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PAPER F1 – FINANCIAL OPERATIONS

CONSOLIDATED ACCOUNTS – PART TWO

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In the previous article we looked at the general principle of consolidated accounts, in particular the consolidated statement of financial position (SOFP).

In this article we are going to move onto the consolidated income statement (IS) and then look at the SOFP and IS together as a potential examination question.

Let us now look at the techniques used to consolidate the IS.

Basic consolidation techniques

As explained in the previous article it is important to first identify the group structure, as once again we only consolidate the parent and subsidiary, NOT the associate. Again we will be applying the single entity concept.

Hence consolidation should be:

Parent + subsidiary +/-any adjustments

Step one: Identify the group structure, i.e. which company is the subsidiary? Which company is the associate? How much control do we have in the associate?

Step two: Eliminate any intra-group sales between the parent and subsidiary, NOT the associate.

This will result in:

↓Revenue

↓Cost of sales

Step three: Eliminate any unrealised profit in closing inventory from intra-group sales.

This will result in:

↑Cost of sales

Remember: closing inventory is reducing, hence causing cost of sales to increase.

Step four: Make any other adjustments for *current year* additional depreciation due to any fair value adjustments or *current year* impairment.

↑Expenses (could be cost of sales/administration/distribution – follow examiners instructions or use the most appropriate)

Step five: Remove any intra-group interest relating to intra-group loans between the parent and subsidiary.

↓Investment income

↓Finance costs

Step six: Remove any intra-group dividends.

↓Investment income

Step seven: Calculate the share of associate profit and add to the group profit.

Example: The income statements are given for the Music group for the year ended 31 December 2010.

	Pop	*Rock*	*Classical*
	$000	$000	$000
Income Statements			
Revenue	120,000	90,000	84,000
Cost of sales	(60,000)	(45,000)	(42,000)
Gross profit	60,000	45,000	42,000
Other operating expenses	(18,000)	(9,000)	(4,200)
Profit from operations	42,000	36,000	37,800
Investment income	18,600	4,500	
Finance costs	(6,000)	(4,500)	(2,100)
Profit before tax	54,600	36,000	35,700
Taxation	(15,200)	(11,000)	(4,800)
Profit for the year	39,400	25,000	30,900

Pop owns all the shares in Rock and 40% of the shares in Classical. Pop has provided each company with a loan of $10 million at an interest rate of 10%. Both loans have been outstanding throughout the period.

When Pop acquired Rock the fair value of its net assets were $1,000,000 higher than its carrying value. This related to a building which had an estimated future useful life of 5 years at the date of acquisition.

Pop supplies a component which is used as a raw material by Rock and Classical. During the year ended 31 December 2010, sales of such components by Pop to Rock were $800,000 and by Pop to Classical $600,000. The inventories of the above-mentioned raw material were included in the accounts of Rock at 31 December 2010 at cost to Rock of $600,000. Classical held no inventory purchased from Pop at the year end. Pop marks up all sales to Rock and Classical by 25%.

During the year there was no impairment of goodwill or intra-group dividends paid.

We can now follow the steps to consolidate as follows:

Step one: Identify the group structure, i.e. Rock is the subsidiary and Classical is the associate (40%)

Step two: Eliminate any intra-group sales between the parent and subsidiary, NOT the associate.

This will result in:

↓Revenue $800,000

↓Cost of sales $800,000

Step three: Eliminate any unrealised profit in closing inventory from intra-group sales. We do not have any closing inventory in the associate, hence no unrealised profit.

The unrealised profit is calculated using the mark-up method $600,000/125 x 25 =$120,000

This will result in:

↑Cost of sales $120,000

Step four: **I**ncrease our expenses by the additional depreciation charge of $1,000,000/5 = $200,000 for the year.

↑Expenses (cost of sales)

We do not have any impairment for the year.

Step five: Eliminate the intra-group loan interest between the parent and subsidiary, NOT the associate, of $10,000,000 x 10% = $1,000,000.

↓Investment income $1,000,000

↓Finance costs $1,000,000

Step six: We do not have any intra-group dividends for the year.

Step seven: The share of associate profit for the year will be $30,900,000 x 40% = $12,360,000

We can now consolidate.

Remember: we are only adding together the parent and subsidiary and introducing the workings we have made above.

Consolidated income statement for the Music Group for the year ended 31 December 2010

	$000
Income Statements	
Revenue (120,000 + 90,000 – 800)	209,200
Cost of sales (60,000 + 45,000 – 800 + 120 + 200)	(104,520)
Gross profit	104,680
Operating expenses (18,000 + 9,000)	(27,000)
Profit from operations	77,680
Investment income(18,600 + 4,500 – 1,000)	22,100
Finance costs (6,000 + 4,500 – 1,000)	(9,500)
Share of associate profit	12,360
Profit before tax	102,640
Taxation (15,200 + 11,000)	(26,200)
Profit for the year	76,440

Exam approach to consolidate the IS:

1. Set out your proforma as per the question, inserting a line below the operating profit for profit in the associate.

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2. Add together all income and expenditure items for the parent and subsidiary in brackets.
3. Prepare any additional workings required.
4. Consolidate.

REMEMBER: DO NOT CONSOLIDATE THE ASSOCIATE!

Now we have looked at consolidating both the IS and SOFP, let us look at an exam style question incorporating them both.

Fully worked example:

The Waterloo Group of Grantly and its investee companies Clo and Donte at 31 May 2010 are shown below:

Draft Income Statements for the year ended 31 May 2010

	Grantly	*Clo*	*Donte*
	\$000	**\$000**	**\$000**
Revenue	1,138	488	149
Cost of sales	(576)	(214)	(59)
Gross profit	562	274	90
Other operating expenses	(138)	(54)	(40)
Profit from operations	424	220	50
Interest payable	(38)	(44)	(14)
Profit before tax	386	176	36
Taxation	(54)	(24)	(6)
Profit for the year	332	152	30

Draft Statements of financial position as at 31 May 2010

	Grantly		*Clo*		*Donte*	
	\$000	**\$000**	**\$000**	**\$000**	**\$000**	**\$000**
Non-current assets						
PPE		690		812		712
Investments		1,950		-		-
		2,640		812		712
Current assets						
Inventories	700		594		56	
Receivables	1,000		180		130	
Cash and cash equivalents	375		25		15	
		2,075		799		201
		4,715		1,611		913
Equity						
Share capital (\$1 ordinary shares)		1,875		600		500
Reserves		1,125		690		160
		3,000		1,290		660
Non-current liabilities						
7% Loan note		300		200		50
Current liabilities						
Trade payables	1,350		101		188	
Taxation	65		20		15	
		1,415		121		203
		4,715		1,611		913

Additional information

- During the year Grantly acquired a new asset with a fair value of \$100,000 under a finance lease. The lease agreement states payments of \$20,000 must be paid for six years on 31 May each year, starting on 31 May 2010. At the end of the six year period legal title of the asset will pass to Grantly.
- Grantly believes the only accounting entry he must make in relation to this asset is for the \$20,000 payment he has made and he has treated this as an operating expense.
- Grantly acquired 600,000 ordinary shares in Clo on 1 June 2006 for \$1,550,000 when the reserves of Clo were \$200,000.
- At the date of acquisition of Clo, the fair value of its property was \$375,000 higher than its book value and considered to have a remaining life of 10 years.
- Grantly acquired 150,000 ordinary shares in Donte on 1 June 2009 for \$400,000 when the reserves of Donte were \$90,000. The fair values of assets of Donte were the same as their net book value at that date.

Depreciation should be treated as an operating expense.

- Grantly manufactures a component used by Clo and Donte. Grantly sells this component at a margin of 25% and sold goods to Clo for $52,000 during the year. None of these goods had been sold by Clo at 31 May 2010. Grantly sold goods to Donte for $80,000 and Donte had sold all of these goods at 31 May 2010.
- The receivables of Grantly include $60,000 in respect of amounts owing by Clo and $35,000 in respect of amounts owing by Donte. The corresponding balances in the payables of Clo and Donte are $40,000 (Clo) and $35,000 (Donte). On 30 May 2010 Clo had sent a cheque to Grantly for $20,000.
- The impairment test on goodwill applied to Clo showed goodwill is being impaired by 10% per annum on a straight line basis. There has been no impairment for Donte.

Requirements:

(a) Prepare the calculations for the adjustments required to be made in the accounts of Grantly for the year ended 31 May 2010, to account for the finance lease in note (i). You should apply the sum of the digits method when calculating the finance cost and **prepare all workings to the nearest thousand**.

You should assume these calculations will have no effect on taxation.
Explain briefly why ethically Grantly cannot treat the lease payment as an operating expense.

(10 marks)

(b) Prepare the consolidated statement of comprehensive income and consolidated statement of financial position of the Waterloo group at 31 May 2010, incorporating the calculations you have made in requirement (a) above.

Solution:

(a) Grantly has accounted for the payment on the lease by:

Dr Operating expenses

Cr Bank

The $20,000 payment must be removed from the operating expenses on the income statement.

We must now calculate the finance cost of the lease:

	$
Fair value of lease payments	100,000
Payments (6 x $20,000)	(120,000)
Total finance cost	20,000

Sum of the digits = (n x (n + 1))/2 = (6 x 7)/2 = 21

Year 1 = 6/21 x $20,000 = $5,714 rounded to $6,000

Year 2 = 5/21 x $20,000 = $4,762 rounded to $5,000

Year	*B/fwd $000*	*Finance cost $000*	*Payment $000*	*C/fwd $000*
1	100	6	(20)	86
2	86	5	(20)	71

We must also account for the asset which is recognised at fair value in the SOFP and depreciated over its useful life.

Summary for year 1:

Income statement

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Operating expenses reduce by $20,000 (removal of lease payment) and increase by depreciation charge $17,000 (see below)

Finance cost $6,000

Net effect on profit = reduction of $3,000($20,000 - $17,000 - $6,000)

Statement of financial position

Non-current asset $83,000(cost $100,000 – depreciation $17,000 ($100,000/6))

Non-current liability $71,000 (balance owing in one year's time)

Current liability $15,000 (total liability $86,000 – NCL $71,000)

Retained earnings will reduce by $3,000 (profit reduction in the income statement)

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Ethical issues:

IAS 17 states a finance lease must be accounted for as if the asset is owned by the company, not simply rented. Grantly has treated the lease as an operating lease by only accounting for the payment, hence treated the asset as if it is being rented.

CIMA's Code of Ethics for Professional Accountants requires five fundamental principles to be applied when preparing the accounts.

If Grantly did not follow the rules of IAS 17 they would breach the principles of:

Integrity – Grantly must be honest and truthful at all times, omitting the finance lease from the accounts would be misleading.

Professional behavior – Grantly must comply with the relevant laws and regulations, hence follow IAS 17.

(b)

Waterloo Group consolidated income statement for the year ended 31 May 2010

	$000
Revenue (1,138 + 488 - 52)	1,574
Cost of sales (576 + 214 – 52 + 13 (W6))	(751)
Gross profit	823
Other operating expenses (138 + 54 + *38 + *38 – 20 + 17 (part a))	(265)
Operating profit	558
Share of associate (W8)	9
Interest payable (38 + 44 + 6 (part a))	(88)
Profit before tax	479
Taxation (54 + 24)	(78)
Profit for the year	401

*Other operating expenses include $38,000 for this year's fair value depreciation (375,000/10) and $38,000 for impairment of goodwill (375,000 x 10%). Both figures rounded to the nearest thousand.

Waterloo Group Consolidated statement of financial position as at 31 May 2010

	$'000	$'000
Non-current assets		
Property, plant and equipment (690 + 812 +375 – 150 + 83 (part a))		1,810
Goodwill (W3)		225
Investment in Donte(W5)		421
		2,456
Current assets		
Inventories (700 + 594 - 13 (W6))	1,281	
Receivables (1,000 + 180 – 60 (W7))	1,120	
Cash at bank (375 + 25 + 20 (W7))	420	
		2,821
		5,277
Equity and liabilities		
Ordinary share capital		1,875
Reserves (W4)		1,320
		3,195
Non –current liabilities		
7% Loan Notes (300 + 200)	500	
Finance lease (part a)	71	
		571
Current liabilities		
Trade payables (1,350 + 101 – 40 (W7))	1,411	
Tax payable (65 + 20)	85	
Finance lease (part a)	15	
		1,511
		5,277

Workings

(W1) **Group structure**

- Grantly owns 100% of the shares of Clo, so Clo is a subsidiary (4 years ago)
- Grantly owns 30% of the shares of Donte, so Donte is an associate (150,000/500,000)

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(W2)

Net assets of Clo	*Date of acquisition*	*Reporting date*
	$'000	$'000
Share capital	600	600
Retained earnings	200	690
Fair value adjustment	375	375
Depn adjustment (375/10 x 4 years)		(150)
	1,175	1,515

Net assets of Donte	*Date of acquisition*	*Reporting date*
	$'000	$'000
Share capital	500	500
Retained earnings	90	160
	590	660

(W3) **Goodwill (Clo)**

	$'000
Cost of investment	1,550
Net assets of Clo at acquisition (W2)	(1,175)
Goodwill	375
Impairment 10% x 4 years	(150)
	225

(W4) **Consolidated retained earnings**

	$'000
Grantly	1,125
Clo (1,515 – 1,175 (W2))	340
Donte – 30% X (660 – 590 (W2))	21
Unrealised profit adjustment Clo (W7)	(13)
Reduction in profit (part a)	(3)
Impairment of goodwill of Clo (W3)	(150)
	1,320

(W5) **Investment in associate Donte**

	$'000
Cost	400
Share of post-acquisition profits (W4)	21
	421

(W6) **Unrealised profit**

On sales to Clo $52,000 x 25% = $13,000

Increase cost of sales and decrease inventory

Note: Don't forget that any impact on this year's profit will also change the retained earnings figure (W5)

No adjustment is required for Donte as all inventory has been sold at year-end.

(W7) **Intra-group trading**

Intra-group balances:

Reduce receivables by $60,000, reduce payables by $40,000 and increase cash by $20,000.

Intra-group sales:

Reduce revenue and cost of sales by $52,000.

Note: No adjustments are made for inter-company sales/balances for associates.

(W8) **Share of associate profits**

30% x $30,000 = $9,000

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