Feature Article:

Consolidation Procedures – Intra-group Transactions Between Parent and Subsidiary

(relevant to ATE Paper 7 – Advanced Accounting)

Dr. Teresa M H Ho

Introduction

This article describes and illustrates the accounting treatment for intra-group transactions between a parent company and its subsidiaries. One class of transaction does not include intercompany profits (gains) or losses while the other class does.

In preparing consolidated financial statements, an entity combines the financial statements of the parent and its subsidiaries by adding together assets, liabilities, equity, income and expenses. In order for the consolidated financial statements to present the group's financial information as that of a single economic entity, intra-group balances and transactions and profits and losses resulting from intra-group transactions must be eliminated in full.

The accounting techniques for dealing with these transactions are designed to ensure that consolidated financial statements include only those balances or transactions resulting from the consolidated group's dealings with outsiders.

Intra-group transactions not involving unrealized profit or loss

In the process of preparing consolidated financial statements, it is necessary to eliminate intra-group balances and transactions such as leases, purchase and sales of inventories and other assets, and also management and other services between parent and subsidiary. In many cases, the separate financial statements of a parent company and a subsidiary include amounts of intercompany items that should be offset or eliminated. Before preparing the consolidated financial statements, accounting entries should be prepared to bring the balances up to date and to eliminate the intercompany balances.

Example 1 - Leases of property under operating leases

P Limited leased space for a sale office to its subsidiary, S Ltd, under a 10-year lease starting on 1 April 2008. The annual rental, payable in advance, is $25,000. Both companies have a year end of 30 June. The accounting entries for the year to 30 June 2008 to eliminate this intra-group rental income and rental expenses are:

30/06/2008			
Dr.	Rental income – P ($25,000 x 3/12)	$6,250	
Cr.	Rental expenses – S		$6,250
To eliminate intercompany rental income and expenses.			

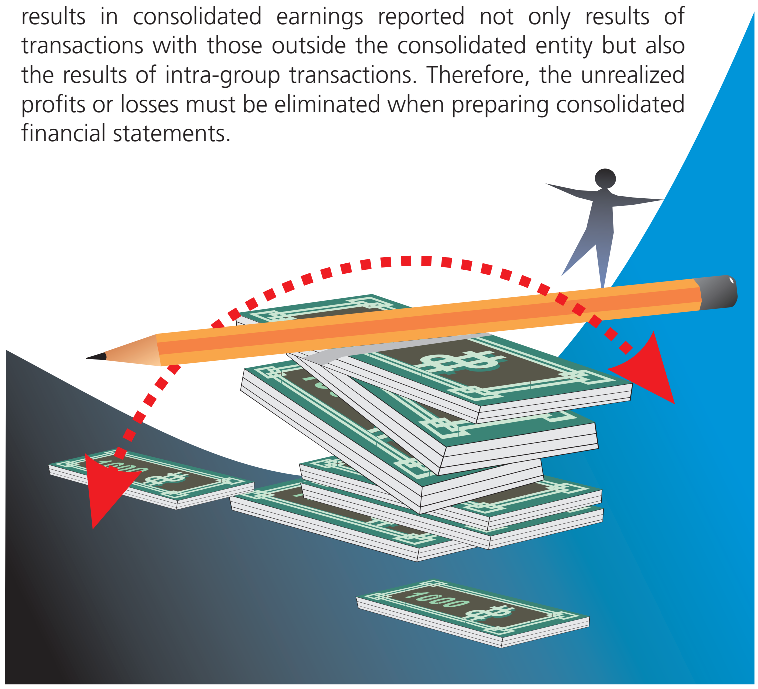
Example 2 – Provision of services

A management fee is billed monthly by P Limited, the parent company, calculated at 10% of the sales revenue of its subsidiary, S Limited. Both companies have a year end of 30 June. The sales revenue for the year to 30 June 2008 is $3 million. The journal entries required to eliminate the intra-group transactions are:

30/06/2008			
Dr.	Revenue from management services – P	$300,000	
Cr.	Management fees – S ($3,000,000 x 10%)		$300,000
To eliminate intercompany management services income and expenses.			

Intra-group purchase and sale of inventories

Many business transactions between a parent and its subsidiaries involve gain or loss; for example, intercompany sales of inventories or other types of assets. The intercompany profits or losses on the sale of inventories can only be realized through selling them to outsiders. The failure to eliminate unrealized profits and losses results in consolidated earnings reported not only results of transactions with those outside the consolidated entity but also the results of intra-group transactions. Therefore, the unrealized profits or losses must be eliminated when preparing consolidated financial statements.



Example 3 – Sale of inventories at a profit to parent company (using periodic inventory system)

P Limited purchases all inventories from its wholly owned subsidiary, S Limited. During the accounting year to 31 March 2008, P Limited purchases goods from S Limited at $480,000, which represents 25% in excess of cost. During the year to 31 December 2007, P Limited sold goods to outsider for $440,000. The amount of inventories of P Limited as at 31 March 2008 was $96,000. Both P Limited and S Limited use the periodic inventory system and have a year end of 31 March.

P Limited and S Limited need to prepare the following journal entries for the above transactions:

P Limited			
		$	$
Dr.	Intercompany purchase	480,000	
Cr.	Intercompany accounts payable		480,000
Dr.	Accounts Receivable	440,000	
Cr.	Sales		440,000
Dr.	Inventories	96,000	
Cr.	Cost of goods sold		96,000

S Limited			
		$	$
Dr.	Intercompany accounts receivable	480,000	
Cr.	Intercompany sales		480,000

The accounting entries needed to eliminate the intra-group transactions and the related unrealized profits on inventories are:

31/03/2008

Dr.	Intercompany sales – S	$480,000	
Cr.	Intercompany purchases – P		$480,000

To eliminate intercompany purchases and sales.

31/03/2008

Dr.	Intercompany accounts payable – P	$480,000	
Cr.	Intercompany accounts receivable – S		$480,000

To eliminate intercompany receivable and payable.

31/03/2008

Dr.	Consolidated retained earnings	$19,200	
Cr.	Inventory – P [$96,000 - $96,000/(1+25%)]		$19,200

To eliminate unrealized profit on inventories.

Example 4 – Sale of inventories at a profit to a subsidiary (using perpetual inventory system)

S Limited is the wholly owned subsidiary of P Limited. During the accounting year to 31 December 2007, P Limited sold goods to S Limited at a price of $2.4 million, the gross profit of which is 25% of selling price. All the inventories of S Limited are purchased from P Limited. Both P Limited and S Limited use the perpetual inventory system and have the year end of 31 December. The balances of inventory of S Limited at 31 December 2006 and 31 December 2007 were $0.3 million and $0.45 million respectively. During the year to 31 December 2007, S Limited sold goods to outsiders for $2.5 million. On 31 December 2007, there were no outstanding intercompany payables and receivables between P Limited and S Limited.

P Limited and S Limited need to prepare the following journal entries for the above transactions:

P Limited			
		$m	$m
Dr.	Intercompany accounts receivable	2.4	
Cr.	Intercompany sales		2.4
Dr.	Intercompany cost of goods sold [$2.4 X (1-25%)]	1.8	
Cr.	Inventories		1.8
Dr.	Cash	2.4	
Cr.	Intercompany accounts receivable		2.4

S Limited			
		$m	$m
Dr.	Inventories	2.4	
Cr.	Intercompany accounts payable		2.4
Dr.	Intercompany accounts payable	2.4	
Cr.	Cash		2.4
Dr.	Accounts Receivable	2.5	
Cr.	Sales		2.5
Dr.	Cost of goods sold	2.25	
Cr.	Inventories ($0.3 + $2.4 - $0.45)		2.25

Example 4 (continued)

The accounting entries needed to eliminate the intra-group transactions and the related unrealized profits in inventories are:

31/12/2007

Dr.	Consolidated retained earnings ($300,000 x 25%)	$75,000	
Dr.	Intercompany sales – P	$2,400,000	
Cr.	Intercompany cost of goods sold – P [$2,400,000 x (1 – 25%)]		$1,800,000
Cr.	Cost of goods sold – S [($300,000+$2,400,000-$450,000)x25%]		$562,500
Cr.	Inventories – S ($450,000 x 25%)		$112,500

To eliminate intercompany sales, cost of sales, and unrealized profit on inventories.

Example 5 – Sale of inventories at a profit to a partially-owned subsidiary (using periodic system)

During the accounting year ended 30 June 2008, P Limited sold goods to an 80%-owned subsidiary, S Limited, for an amount of $480,000; the goods were priced at 25% above cost. S Limited had 30% of the goods from P Limited in inventories on 30 June 2008. At 30 June 2008, S Limited still owned $50,000 for goods purchased from P Limited. Both companies use a periodic inventory system and have an accounting year end of 30 June.

P Limited and S Limited need to prepare the following journal entries for the above transactions:

P Limited

		$	$
Dr.	Intercompany accounts receivable	480,000	
Cr.	Intercompany sales		480,000
Dr.	Cash ($480,000 - $50,000)	430,000	
Cr.	Intercompany accounts receivable		430,000

S Limited

		$	$
Dr.	Intercompany purchases	480,000	
Cr.	Intercompany accounts payable		480,000
Dr.	Intercompany accounts payable	430,000	
Cr.	Cash		430,000
Dr.	Inventories	144,000	
Cr.	Cost of goods sold ($480,000 X 30%)		144,000

The accounting entries needed to eliminate the intra-group transactions and the related unrealized profits in inventories are:

30/06/2008

Dr.	Intercompany sales – P	$480,000	
Cr.	Intercompany purchases – S		$480,000

To eliminate intercompany sales and purchases.

30/06/2008

Dr.	Intercompany accounts payable – S	$50,000	
Cr.	Intercompany accounts receivable – P		$50,000

To eliminate intercompany accounts receivable and payable.

30/06/2008

Dr.	Consolidated retained earnings	$28,800	
Cr.	Inventory – S [($480,000 x 30%) x 25%/(1 + 25%)]		$28,800

To eliminate unrealized profit on inventories.

Intra-group transactions involving sale of depreciable assets

Intra-group sales of depreciable assets are different from intra-group sale of inventories because the economic lives of depreciable assets require the passage of a number of accounting periods before unrealized gains or losses on sales of these assets are realized through the consumption of them or disposal to outsiders. The unrealized intercompany gain from the sale must be eliminated from the depreciable asset and also the related excessive depreciation expense must be eliminated from the profit and loss when preparing the consolidated financial statements.

Example 6 – Sale of machinery to a partially-owned subsidiary

S Limited is the 60%-owned subsidiary of P Limited. Both companies have the year end of 31 March. On 1 March 2008, S Limited purchased machinery from P Limited for $180,000; the estimated useful life of the machinery was 10 years from date of acquisition. From the accounting books of P Limited, it was found that, at the date of sale of the machinery, its cost and accumulated depreciation were $150,000 and $30,000 respectively. Both companies use the straight-line method for depreciating machinery; a full year's depreciation is charged in the year of purchase and none in the year of disposal. On 31 March 2008, there were no outstanding intercompany payables and receivables between P Limited and S Limited.

P Limited			
		$	$
Dr.	Intercompany accounts receivable	180,000	
Dr.	Accumulated depreciation	30,000	
Cr.	Machinery		150,000
Cr.	Gain on sale of machinery		60,000
Dr.	Cash	180,000	
Cr.	Intercompany accounts receivable		180,000

S Limited			
		$	$
Dr.	Machinery	180,000	
Cr.	Intercompany accounts payable		180,000
Dr.	Depreciation	18,000	
Cr.	Accumulated depreciation ($180,000/10 years)		18,000
Dr.	Intercompany accounts payable	180,000	
Cr.	Cash		180,000

Example 6 (continued)

The accounting entries needed to eliminate the intra-group purchase and sale of machinery and the related unrealized gain are:

31/03/2008

Dr.	Consolidated retained earnings	$60,000	
Cr.	Machinery – S		$60,000

To eliminate unrealized intercompany gain in machinery.

31/03/2008

Dr.	Accumulated depreciation – S	$6,000	
Cr.	Depreciation expenses – S [($180,000 - $120,000) / 10 years]		$6,000

To eliminate the excessive depreciation of the intercompany sale of machinery.

Example 7 – Sale of equipment to a parent company by a partially owned subsidiary

On 1 July 2005, S Limited purchased office equipment for $150,000. At that time, it was estimated that the office equipment had a residual value of $30,000 and a useful life of 10 years.

S Limited is the 60%-owned subsidiary of P Limited. On 1 March 2008, S Limited sold the office equipment to P Limited for $180,000. P Limited estimated, at 1 March 2008, the residual value and useful life of the office equipment were $20,000 and eight years respectively. On 31 March 2008, P Limited settled the intercompany accounts payable of $180,000.

Both companies use straight-line method for depreciating office equipment; and a full year's depreciation is charged in the year of purchase and none in the year of disposal.

Both companies have the year end of 31 March.

P Limited and S Limited need to prepare the following journal entries for the above transactions:

P Limited			
		$	$
Dr.	Office equipment	180,000	
Cr.	Intercompany accounts payable		180,000
Dr.	Depreciation	20,000	
Cr.	Accumulated depreciation [($180,000 - $20,000)/8]		20,000
Dr.	Intercompany accounts payable	180,000	
Cr.	Cash		180,000

S Limited			
		$	$
Dr.	Intercompany accounts receivable	180,000	
Dr.	Accumulated depreciation [($150,000 - $30,000)/10X2]	24,000	
Cr.	Office Equipment		150,000
Cr.	Gain on sale of office equipment		54.000
Dr.	Cash	180,000	
Cr.	Intercompany accounts receivable		180,000

The accounting entries needed to eliminate the intercompany purchase and sale of equipment and the related unrealized gain are:

31/03/2008

Dr.	Consolidated retained earnings ($54,000 X 60%)	$32,400	
Dr.	Minority interests ($54,000 X 40%)	$21,600	
Cr.	Office equipment – P {$180,000 - [$150,000-($150,000 - 30,000) /10 X 2]}		$54,000

To eliminate unrealized intercompany gain in office equipment.

31/03/2008

Dr.	Accumulated deprecation – P	$4,250	
Cr.	Depreciation expenses – P {($180,000 - $20,000)-($150,000 - $24,000)] / 8 years		$4,250

To eliminate the excessive depreciation of the intercompany sale of office equipment. *(See Notes)*

Note 1:

Carrying value of office equipment at 1 March 2008	$
In P Limited's book *(Note 2)*	160,000
In S Limited's book *(Note 3)*	(126,000)
Difference #	34,000
The annual excessive depreciation = $34,000 / 8 years	4,250

this represents the excessive depreciation of the intercompany sale of office equipment for 8 years, its useful life.

Note 2 (P Limited's book):

	$
Cost of the office equipment	180,000
Residual value	(20,000)
Carrying amount of the office equipment at 1 March 2008	160,000

Note 3 (S Limited's book):

	$
Cost of the office equipment	150,000
Accumulated depreciation ($12,000 X 2 years) *(Note 4)*	(24,000)
Carrying amount of the office equipment at 1 March 2008	126,000

Note 4:

	$
Cost of the office equipment	150,000
Residual value	(30,000)
	120,000
Annual depreciation = $120,000 /10 years	12,000