>study notes

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Paper F3
Financial Strategy

FINANCIAL MANAGEMENT

Sally Baker explains how to account for complex groups featuring sub-subsidiaries.

The term "complex group" is used to refer to a situation where a parent entity has a subsidiary without directly owning shares in it. Instead it owns the shares indirectly via another subsidiary. Remembering that control is normally achieved by owning most of an entity's shares and, therefore, a majority of voting rights, let's consider the two complex group scenarios illustrated in the diagram.

The first step to take when dealing with complex groups is to test for control. It's clear from scenario one that the Elm company is a subsidiary of Durian, but we need to consider whether Fig is also a subsidiary of Durian. Imagine a meeting of Fig's shareholders, at which Elm holds 70 per cent of the voting rights and so has control. Since Durian has control of Elm, it can instruct Elm how to vote at the meeting. In reality, therefore, Durian is able to control Fig indirectly via its control of Elm, so we can conclude that Fig is a subsidiary of Durian.

In scenario two it's clear that Ruby has a controlling majority of voting rights in Sapphire. Similarly, Sapphire can control Topaz. Ruby can, therefore, control Topaz via Sapphire, which makes Topaz a subsidiary of Ruby as well. In both scenarios the structure is known as a vertical group and Fig and Topaz are referred to as sub-subsidiaries (sub-subs).

Once you've determined that the relationship of control exists, the second step is to consider the effective ownership percentages – ie, the respective percentages of the sub-sub that the parent and non-controlling-interest shareholders (NCIs) own in effect. These percentages are used in the mechanics of the consolidation process.

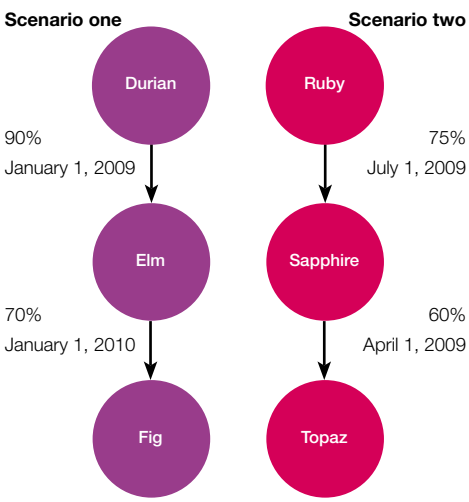
Returning to scenario one, Durian owns 90 per cent of subsidiary Elm, so the remaining 10 per cent is owned by NCIs. Elm owns 70 per cent of Fig, so in effect Durian owns 90 per cent x 70 per cent = 63 per cent of its sub-sub Fig. The remaining 37 per cent is owned by NCIs. (An alternative way to calculate the NCIs' effective percentage is to consider that there are shareholders other than Elm who own 30 per cent of Fig. Also, the NCIs of Elm own ten per cent of its 70 per cent holding in Fig and so own 10 per cent x 70 per cent = 7 per cent of Fig. So the NCIs of the group own 30 per cent + 7 per cent = 37 per cent of Fig.)

In scenario two, Ruby owns 75 per cent of Sapphire and the NCIs own 25 per cent. In effect, Ruby owns 75 per cent x 60 per cent = 45 per cent of Topaz, so the NCIs' effective percentage is 55 per cent. It is important to note the distinction between control and ownership here: although Ruby does not own most of Topaz's shares, Ruby is able to control Topaz via its control of Sapphire.

The third step is to consider the date of acquisition. This is defined in IFRS3 (revised), "Business combinations", as the day that the parent achieves control, where the parent of the group is the ultimate parent. It is the date from which a subsidiary is consolidated – ie, when the subsidiary's net assets, goodwill and NCIs are recognised.

In scenario one Durian can control Elm from January 1, 2009, so this is the relevant date of acquisition for Elm. Durian can't control Fig until Elm is able to control Fig. That occurs only on January 1, 2010, so this is the date of acquisition for Fig. In scenario two Sapphire's date of acquisition is July 1, 2009, by which time Sapphire could already control Topaz, since it acquired its holding on April 1, 2009. Ruby can, therefore, control

Two complex group scenarios



1 Goodwill calculation for the Fig company

	$	$
Elm's cost of investment in Fig	700	
Indirect holding adjustment (10% x $700)	(70)	
Fair value of Durian's 63% holding (90% x $700)		630
Fair value of NCIs' 37% holding		300
Fair value of whole subsidiary		930
Fair value of Fig's net assets at acquisition		(500)
Gross goodwill at acquisition		430

2 Goodwill calculation for the Topaz company

	$	$
Sapphire's cost of investment in Topaz	600	
Indirect holding adjustment (25% x $600)	(150)	
Fair value of Ruby's 45% holding (75% x $600)		450
Fair value of NCIs' 55% holding		400
Fair value of whole subsidiary		850
Fair value of Topaz's net assets at acquisition		(700)
Gross goodwill at acquisition		150

Topaz from July 1, 2009. In other words, the date of acquisition for the sub-sub is the later of the two dates.

The fourth and final step in a complex group scenario is to deal with the indirect holding adjustment (IHA). The IHA affects only the calculation of goodwill for the sub-sub and the NCIs' element in equity in the consolidated statement of financial position. To calculate gross goodwill, it's necessary to compare the fair value of the ultimate parent's and NCIs' holdings with the fair value of the subsidiary's net assets. Normally the fair value of the parent's holding is the cost of the investment in the parent's books, but in a complex group this is not the case, since it was the intermediate entity that funded the investment in the sub-sub.

Returning to scenario one, suppose that Elm paid $700 for its 70 per cent investment in Fig. As the parent of the group, Durian effectively owns only 63 per cent of Fig. The fair value of Durian's holding for the purposes of goodwill is 90 per cent x $700 = $630. Hence an adjustment is required to reduce the cost of Elm's investment by $70 – ie, the element of the cost attributed to the NCIs' 10 per cent holding in Elm. This is then charged to the NCIs in their element of equity.

Suppose also that the fair value of the NCIs' 37 per cent holding in Fig is $300 and that the fair value of Fig's net assets at the date of acquisition was $500. The goodwill calculation is shown in table 1.

To reinforce the idea, let's calculate gross goodwill for scenario two. Suppose that Sapphire paid $600 for its investment in Topaz; that Topaz's net assets on July 1, 2009 had a fair value of $700; and that the fair value of the NCIs' 55 per cent holding in Topaz at the time was $400. The IHA would be the NCIs' percentage holding in Sapphire multiplied by the cost of Sapphire's investment in Topaz – ie, 25 per cent x $600 = $150. By reducing the cost of investment by 25 per cent, this will leave the fair value of 75 per cent of Sapphire's 60 per cent holding – ie, the fair value of Ruby's 45 per cent holding. The goodwill calculation is shown in table 2.

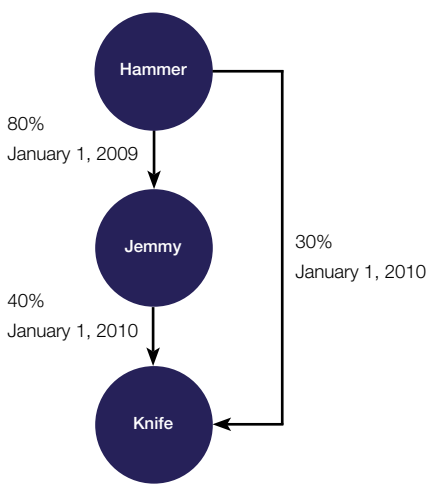
Preparing the consolidated income statement is relatively straightforward for a vertical group because the IHA has no impact. It's simply a case of consolidating the income and expenses of both the subsidiary and sub-sub in full, line by line. The NCIs' share of the sub's and sub-sub's profits will be calculated, remembering to use the NCIs' effective ownership percentage for the sub-sub.

Complex group structures can be further complicated when the parent also directly owns shares in the sub-sub. Such cases are often referred to as "mixed groups". Consider the scenario illustrated in the diagram at the bottom of the page: it shows that Jemmy is a straightforward subsidiary of which Hammer owns 80 per cent and the NCIs own 20 per cent. It will be consolidated from January 1, 2009.

It is necessary to establish how Knife should be treated in the group accounts. Taking both Hammer's direct and indirect interests into account, it is again necessary to test first whether Hammer can control Knife. Hammer controls Jemmy by virtue of its 80 per cent holding. Hammer can, therefore, dictate how Jemmy uses its 40 per cent share of Knife (although Jemmy cannot control Knife because it doesn't have a majority holding). But taking account of both Hammer's direct holding of 30 per cent in Knife and the 40 per cent it can control via Jemmy, Hammer can control Knife by dictating how 70 per cent of shareholder votes are cast.

Next, we need to calculate the effective percentages. Hammer owns 30 per cent of Knife directly and 80 per cent x 40 per cent = 32 per cent indirectly, making a total of 62 per cent. The NCIs own the remaining 38 per cent. Third, we note that Hammer is able to control Knife from January 1, 2010, which makes it the date of acquisition.

A mixed group scenario



> "Complex group structures can be further complicated when the parent also directly owns shares in the sub-sub"

3 Goodwill calculation for the Knife company

	$	$
Fair value of Hammer's direct 30% holding		900
Jemmy's cost of investment in Knife	1,200	
Indirect holding adjustment (20% x $1,200)	(240)	
Fair value of Hammer's indirect 32% holding (80% x $1,200)		960
Fair value of NCIs' 38% holding		1,140
Fair value of whole subsidiary		3,000
Fair value of Knife's net assets at acquisition		(2,000)
Gross goodwill at acquisition		1,000

4 Statements of financial position for Rain, Snow and Thunder on March 31, 2010

	Rain ($000)	Snow ($000)	Thunder ($000)
ASSETS			
Non-current assets			
Property, plant and equipment	2,500	900	1,100
Investments	3,000	600	
	5,500	1,500	1,100
Current assets	4,500	2,000	1,400
Total assets	10,000	3,500	2,500
EQUITY AND LIABILITIES			
Equity			
Share capital $1 shares	1,000	500	200
Retained earnings	4,500	800	700
Total equity	5,500	1,300	900
Non-current liabilities	1,500	800	500
Current liabilities	3,000	1,400	1,100
Total liabilities	4,500	2,200	1,600
Total equity and liabilities	10,000	3,500	2,500

5 Key data for Snow and Thunder

	Snow ($000)	Thunder ($000)
Retained earnings on April 1, 2007	300	100
Retained earnings on April 1, 2008	500	300
Fair value of NCIs' holding at acquisition	600	200

Suppose that we have the following data:

- Cost paid by Hammer for its 30 per cent holding in Knife: $900.
- Cost paid by Jemmy for its 40 per cent holding in Knife: $1,200.
- Fair value of NCIs' 38 per cent holding at the date of acquisition: $1,140.
- Fair value of Knife's net assets at the date of acquisition: $2,000.

When calculating the goodwill, the fair value of Hammer's holding will comprise the fair value of both its direct and indirect holdings. The IHA will be required in respect of Hammer's indirect investment via Jemmy, but not in relation to its direct holding. The goodwill calculation is shown in table 3.

It's worth noting that a mixed group structure can be made considerably more complicated by changing the dates of acquisition on the sub-sub in such a way that it's also necessary to consider whether there's also a step acquisition from no control to control or a decrease in the NCIs' holding.

Now try the following question to test your understanding. The solution will appear at www.cimaglobal.com/velocity. Table 4 contains the statements of financial position of three entities – Rain, Snow and Thunder – at their reporting date. Rain acquired 70 per cent of Snow's equity shares on April 1, 2008, paying $1.75m in cash. Snow had previously acquired 60 per cent of Thunder's equity shares on April 1, 2007, paying $600,000 in cash. The balances on retained earnings for Snow and Thunder and the fair value of their NCIs' holdings (based on effective ownership percentages) are shown in table 5. It is the Rain group's policy to measure non-controlling interest at the date of acquisition at fair value. You are required to prepare the group's consolidated statement of financial position as at March 31, 2010.

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