23 Consolidation: non-controlling interest

ACCOUNTING STANDARDS IN FOCUS

IFRS 10 *Consolidated Financial Statements*
IFRS 3 *Business Combinations*
IAS 1 *Presentation of Financial Statements*
IFRS 12 *Disclosure of Interests in Other Entities*

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. discuss the nature of the non-controlling interest (NCI)
2. explain the effects of the NCI on the consolidation process
3. explain how to calculate the NCI share of equity
4. explain how the calculation of the NCI is affected by the existence of intragroup transactions
5. explain how the NCI is affected by the existence of a gain on bargain purchase.

LO1

23.1 NON-CONTROLLING INTEREST EXPLAINED

In chapters 21 and 22, the group under consideration consisted of two entities where the parent owned *all* the share capital of the subsidiary. In this chapter, the group under discussion consists of a parent that has only a *partial* interest in the subsidiary; that is, the subsidiary is less than wholly owned by the parent.

23.1.1 Nature of the non-controlling interest (NCI)

Ownership interests in a subsidiary other than the parent are referred to as the non-controlling interest, or NCI. Appendix A of IFRS 10 *Consolidated Financial Statements* contains the following definition of NCI:

> Equity in a **subsidiary** not attributable, directly or indirectly, to a **parent**.

In figure 23.1, the group shown is illustrative of those discussed in this chapter. In this case, the parent entity owns 75% of the shares of a subsidiary. There are two owners in this group — the parent shareholders and the NCI. The NCI is a contributor of equity to the group.

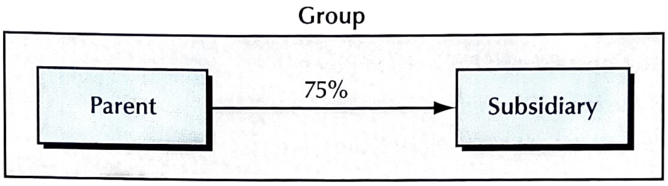

FIGURE 23.1 The group

According to paragraph 22 of IFRS 10, the NCI is to be identified and presented within equity, separately from the parent shareholders' equity; that is, it is regarded as an equity contributor to the group, rather than a liability of the group. This is because the NCI does not meet the definition of a liability as contained in the *Conceptual Framework*, because the group has no present obligation to provide economic outflows to the NCI. The NCI receives a share of consolidated equity, and is therefore a participant in the residual equity of the group.

Classification of the NCI as equity affects both the calculation of the NCI as well as how it is disclosed in the consolidated financial statements.

23.1.2 Calculation of the NCI share of equity

The NCI is entitled to a share of consolidated equity, because it is a contributor of equity to the consolidated group. Because consolidated equity is affected by profits and losses made in relation to transactions within the group, the calculation of the NCI is affected by the existence of intragroup transactions. In other words, the NCI is entitled to a share of the equity of the subsidiary adjusted for the effects of profits and losses made on intragroup transactions. *This is discussed in more detail in section 22.4.*

23.1.3 Disclosure of the NCI

According to paragraph 22 of IFRS 10:

> A parent shall present non-controlling interests in the consolidated statement of financial position within equity, separately from the equity of the owners of the parent.

IAS 1 *Presentation of Financial Statements* confirms these disclosures. Paragraph 81B of IAS 1 requires the profit or loss and other comprehensive income for the period to be disclosed in the statement of profit or loss and other comprehensive income, showing separately the comprehensive income attributable to non-controlling interests, and that attributable to owners of the parent. Figure 22.2 shows how the statement of profit or loss and other comprehensive income may be shown. Note that in terms of the various line items in the statement, such as revenues and expenses, it is the total consolidated amount that is disclosed. It is only the consolidated profit and comprehensive income that is divided into parent share and NCI share.

According to paragraph 106(a) of IAS 1, the total comprehensive income for the period must be disclosed in the statement of changes in equity, showing separately the total amounts attributable to owners of the parent and to non-controlling interests. Figure 23.3 provides an example of disclosures in the statement of changes of equity. Note that the only line item for which the NCI must be shown is the total comprehensive income for the period. There is no requirement to show the NCI share of each equity account.

IRIS LTD
Consolidated Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2016

	2016 $m	2015 $m
Revenue	500	450
Expenses	280	260
Gross profit	220	190
Finance costs	40	35
	180	155
Share of after-tax profit of associates	30	25
Profit before tax	210	180
Income tax expense	(28)	(22)
PROFIT FOR THE YEAR	182	158
Other comprehensive income	31	24
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	213	182
Profit attributable to:		
Owners of the parent	151	140
Non-controlling interests	31	18
	182	158
Total comprehensive income attributable to:		
Owners of the parent	179	160
Non-controlling interests	34	22
	213	182

FIGURE 23.2 Disclosure of NCI in the statement of profit or loss and other comprehensive income

IRIS LTD
Consolidated Statement of Changes in Equity (extract)
for the year ended 30 June 2016

	Total equity						
	Share capital $m	Revaluation surplus $m	Translation reserve $m	Retained earnings $m	Total $m	Non-controlling interest $m	Owners of the parent $m
Balance at 1 July 2015	400	120	100	250	870	130	740
Changes in accounting policy	—	—	—	—	—	—	—
Total comprehensive income for the period	—	21	10	182	213	34	179
Dividends	—	—	—	(150)	(150)	(10)	(140)
Issue of share capital	—	—	—	—	—	—	—
Balance at 30 June 2016	400	141	110	282	933	154	779

FIGURE 23.3 Disclosure of NCI in the statement of changes in equity

Similarly, paragraph 54(q) of IAS 1 requires disclosure in the statement of financial position of the total NCI share of equity while paragraph 54(r) requires disclosure of the issued capital and reserves attributable to owners of the parent. The equity section of the statement of financial position could then appear as in figure 23.4. In the statement of financial position, only the total NCI share of equity is disclosed, rather than the NCI share of the different categories of equity. The NCI share of the various categories of equity and the changes in those balances can be seen in the statement of changes in equity. Note that the consolidated assets and liabilities are those for the whole of the group; it is only equity that is divided into parent and NCI shares.

IRIS LTD Statement of Financial Position (extract) as at 30 June 2016	2014 $m	2015 $m
EQUITY		
Share capital	400	400
Other reserves	251	220
Retained earnings	282	250
	933	870
Non-controlling interests	154	130
Equity attributable to owners of the parent	779	740

FIGURE 23.4 Disclosure of NCI in the statement of financial position

IFRS 12 *Disclosure of Interests in Other Entities* also contains disclosures required for subsidiaries in which there are non-controlling interests. Paragraph 12 of IFRS 12 states:

> An entity shall disclose for each of its subsidiaries that have non-controlling interests that are material to the reporting entity:
> (a) the name of the subsidiary.
> (b) the principal place of business (and country of incorporation if different from the principal place of business) of the subsidiary.
> (c) the proportion of ownership interests held by non-controlling interests.
> (d) the proportion of voting rights held by non-controlling interests, if different from the proportion of ownership interests held.
> (e) the profit or loss allocated to non-controlling interests of the subsidiary during the reporting period.
> (f) accumulated non-controlling interests of the subsidiary at the end of the reporting period.
> (g) summarised financial information about the subsidiary (see paragraph B10).

LO2

23.2 EFFECTS OF AN NCI ON THE CONSOLIDATION PROCESS

Paragraph 32 of IFRS 3 states:

> The acquirer shall recognise goodwill as of the acquisition date measured as the excess of (a) over (b) below:
> (a) the aggregate of:
> (i) the consideration transferred measured in accordance with this IFRS, which generally requires acquisition-date fair value (see paragraph 37);
> (ii) the amount of any non-controlling interest in the acquiree measured in accordance with this IFRS; and
> (iii) in a business combination achieved in stages (see paragraphs 41 and 42), the acquisition date fair value of the acquirer's previously held equity interests in the acquiree.
> (b) the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured in accordance with this IFRS.

Note that this choice is not an accounting policy choice, but is made for each business combination.

Consider a situation where A Ltd acquires 50% of the shares of B Ltd, having previously acquired 20% of the shares of B Ltd. Holding 70% of the shares of B Ltd gives A Ltd control of that entity. At acquisition date, there is an NCI of 30%. Note:

- Where the parent acquires less than all the shares of a subsidiary, it acquires only a portion of the total equity or total net assets of the subsidiary. Hence, the consideration transferred is for only a portion of the net assets of the subsidiary; in this example, 50%.
- In essence, the 20% investment held prior to the parent obtaining control must be revalued at acquisition date to fair value.

The next step is to measure the amount of the 30% non-controlling interest in the subsidiary. The problem with this step is that IFRS 3 allows alternative treatments. Paragraph 19 of IFRS 3 states:

> For each business combination, the acquirer shall measure at the acquisition date components of non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation at either:
> (a) fair value; or
> (b) the present ownership instruments' proportionate share in the recognised amounts of the acquiree's identifiable net assets.
>
> All other components of non-controlling interests shall be measured at their acquisition-date fair values, unless another measurement basis is required by IFRSs.

Which alternative is chosen affects the determination of goodwill and the subsequent consolidation adjustments. Where the first alternative is used, the goodwill attributable to both the NCI and the parent is measured. Under the second alternative, only the goodwill attributable to the parent is measured. The methods are sometimes referred to as the 'full goodwill' and the 'partial goodwill' methods — see paragraph BC205 of the Basis for Conclusions on IFRS 3 for further elaboration. These terms are used in this chapter to distinguish between the two methods. *The methods are demonstrated in sections 23.2.1 and 23.2.2 and the reasons for the standard setters allowing optional measurements, as well as factors to consider in choosing between the methods, is discussed in section 23.2.3.*

23.2.1 Full goodwill method

Under this method, at acquisition date, the NCI in the subsidiary is measured at fair value. The fair value is determined on the basis of the market prices for shares not acquired by the parent, or, if these are not available, a valuation technique is used.

It is not sufficient to use the consideration paid by the acquirer to measure the fair value of the NCI. For example, if a parent paid \$80 000 for 80% of the shares of a subsidiary, then the fair value of the NCI cannot be assumed to be \$20 000 (i.e. 20/80 × \$80 000). It may be that the acquirer paid a control premium in order to acquire a controlling interest in the subsidiary. Relating this to the nature of goodwill in chapter 13, core goodwill includes the component of combination goodwill, relating to synergies arising because of the combination of the parent and the subsidiary. The parent would increase the consideration it was prepared to pay due to these synergies. However, these synergies may result in increased earnings in the parent and not the subsidiary. In this case, the NCI does not receive any share of those synergies. Hence, the consideration paid by the parent could not be used to measure the fair value of the NCI in the subsidiary.

To illustrate the method, assume that P Ltd paid \$169 600 for 80% of the shares of S Ltd on 1 July 2013. All identifiable assets and liabilities of the subsidiary were recorded at fair value, except for land for which the fair value was \$10 000 greater than cost. The tax rate is 30%. The NCI in S Ltd was considered to have a fair value of \$42 000. At acquisition date, the equity of S Ltd consisted of:

Share capital	\$100 000
General reserve	60 000
Retained earnings	40 000

The acquisition analysis is as follows:

Net fair value of identifiable assets and liabilities of S Ltd	= \$100 000 + \$60 000 + \$40 000 + \$10 000(1 – 30%) (BCVR — land)
	= \$207 000
(a) Consideration transferred	= \$169 600
(b) Non-controlling interest in S Ltd	= \$42 000
Aggregate of (a) and (b)	= \$211 600
Goodwill	= \$211 600 – \$207 000
	= \$4600
Goodwill of S Ltd	
Fair value of S Ltd	= \$42 000/20%
	= \$210 000
Net fair value of identifiable assets and liabilities of S Ltd	= \$207 000
Goodwill of S Ltd	= \$210 000 – \$207 000
	= \$3000
Goodwill of P Ltd	
Goodwill acquired	= \$4600
Goodwill of S Ltd	= \$3000
Goodwill of P Ltd – control premium	= \$1600

Note the following:

- The acquired goodwill of \$4600 calculated in the acquisition analysis consists of both the goodwill of the subsidiary and the premium paid by the parent to acquire control over the subsidiary.

- As the fair value of the NCI (20%) is determined to be $42 000, if P Ltd were to acquire 80% of S Ltd, it would expect to pay $168 000 (i.e. 80/20 × $42 000). As P Ltd paid $169 600, it paid a control premium of $1600. This is recognised as goodwill attributable to P Ltd. Effectively the goodwill of $4600 is broken down into:

Control premium paid by P Ltd	$1600
Parent's share of S Ltd's goodwill	$2400 [$4000 – $1600 *or* 80% × $3000]
NCI share of S Ltd's goodwill	$600 [20% × $3000]

- The goodwill attributable to P Ltd — both share of S Ltd's goodwill and the control premium — could be calculated as follows:

Net fair value acquired by P Ltd	= 80% × $207 000
	= $165 600
Consideration transferred	= $169 600
Goodwill attributable to P Ltd	= $169 600 – $165 600
	= $4000

- The control premium is recognised as part of goodwill on consolidation, but is not attributable to the NCI.

In accounting for the goodwill, a business combination valuation reserve is raised for the goodwill of the subsidiary, namely $3000. This reserve is then attributed on a proportional basis to the parent and the NCI, being $2400 to the parent and $600 to the NCI. The control premium goodwill is recognised in the adjustment to eliminate the investment in the subsidiary only as the earnings from this combination goodwill flow into the parent's earnings and not that of the subsidiary — otherwise it would be included in the valuation of the NCI interest in the subsidiary.

The consolidation worksheet entries are as follows:

1. Business combination valuation entries			
Land	Dr	10 000	
Deferred Tax Liability	Cr		3 000
Business Combination Valuation Reserve	Cr		7 000
(Revaluation of land)			
Goodwill	Dr	3 000	
Business Combination Valuation Reserve	Cr		3 000
(Recognition of subsidiary goodwill)			
2. Elimination of investment in subsidiary			
Retained Earnings [80% × $40 000]	Dr	32 000	
Share Capital [80% × $100 000]	Dr	80 000	
General Reserve [80% × $60 000]	Dr	48 000	
Business Combination Valuation Reserve [80% ($7000 + $3000)]	Dr	8 000	
Goodwill	Dr	1 600	
Shares in S Ltd	Cr		169 600

Two *business combination valuation entries* are required: one for the revaluation of the land to fair value, and the second to recognise the goodwill of the subsidiary.

In relation to the equity on hand at acquisition date, 80% is attributable to the parent, and 20% is attributable to the NCI. The *elimination of investment in subsidiary* relates to the investment by the parent in the subsidiary, and thus relates to 80% of the amounts shown in the acquisition analysis. The adjustments to equity in the elimination of investment in subsidiary are then determined by taking 80% of the recorded equity of the subsidiary and 80% of the business combination valuation reserves recognised as a result of differences between fair values and carrying amounts of the subsidiary's identifiable assets and liabilities at acquisition date and the goodwill of the subsidiary. The goodwill relating to the control premium is recognised in the elimination of investment in subsidiary.

23.2.2 Partial goodwill method

Under the second option, at acquisition date, the NCI is measured as the NCI's proportionate share of the acquiree's identifiable net assets. The NCI therefore does not get a share of any equity relating to goodwill as goodwill is defined in Appendix A of IFRS 3 as the future economic benefits arising from assets not individually identified. The only goodwill recognised is that acquired by the parent in the business combination — hence the term 'partial' goodwill. According to paragraph 32 of IFRS 3, using the measurement of the NCI share of equity based on the NCI's proportionate share of the acquiree's identifiable net assets:

Goodwill = consideration transferred *plus* previously acquired investment by parent *plus* NCI share of identifiable assets and liabilities of subsidiary *less* net fair value of identifiable assets and liabilities of subsidiary.

To illustrate, using the same example as in section 23.2.1, assume that P Ltd paid $169 600 for 80% of the shares of S Ltd on 1 July 2013. All identifiable assets and liabilities of the subsidiary were recorded at fair value, except for land for which the fair value was $10 000 greater than cost. The tax rate is 30%. At acquisition date, the equity of S Ltd consisted of:

Share capital	$100 000
General reserve	60 000
Retained earnings	40 000

The acquisition analysis is as follows:

Net fair value of identifiable assets and liabilities of S Ltd	= $100 000 + $60 000 + $40 000 + $10 000(1 – 30%) (BCVR — land)
	= $207 000
(a) Consideration transferred	= $169 600
(b) Non-controlling interest in S Ltd	= 20% × $207 000
	= $41 400
Aggregate of (a) and (b)	= $211 000
Goodwill	= $211 000 – $207 000
	= $4000

Note that the $4000 goodwill is the same as the parent's share calculated in section 23.2.1, consisting of the parent's share of the subsidiary's goodwill (80% × $3000 = $2400) and any control premium ($1600).

The consolidation worksheet entries are:

Business combination valuation entry			
Land	Dr	10 000	
Deferred Tax Liability	Cr		3 000
Business Combination Valuation Reserve	Cr		7 000
Elimination of investment in subsidiary			
Retained Earnings [80% × $40 000]	Dr	32 000	
Share Capital [80% × $100 000]	Dr	80 000	
General Reserve [80% × $60 000]	Dr	48 000	
Business Combination Valuation Reserve [80% × $7000]	Dr	5 600	
Goodwill	Dr	4 000	
Shares in S Ltd	Cr		169 600

Note firstly that there is no business combination valuation entry for goodwill. This is because only the parent's share of the goodwill is recognised. A business combination valuation adjustment to recognise goodwill is only used under the full goodwill method where both the parent's and the NCI's share of goodwill is recognised.

In relation to the equity on hand at acquisition date, only 80% is attributable to the parent, and 20% is attributable to the NCI. The elimination of investment in subsidiary relates to the investment by the parent in the subsidiary, and thus relates to 80% of the amounts shown in the acquisition analysis. The adjustments to equity in the elimination of investment in subsidiary are then determined by taking 80% of the recorded equity of the subsidiary and 80% of the business combination valuation reserves recognised as a result of differences between fair value and carrying amounts of the subsidiary's identifiable assets and liabilities at acquisition date. Because only the parent's share of goodwill is recognised, this is accounted for in the elimination of investment in subsidiary which also relates to the investment by the parent in the subsidiary.

23.2.3 Reasons for, and choosing between, the options

The International Accounting Standards Board (IASB®) supports the principle of measuring all components of a business combination at fair value (paragraph BC212); however, paragraph BC213 notes some arguments against applying this to the NCI in the acquiree:

- It is more costly to measure the NCI at fair value than at the proportionate share of the net fair value of the identifiable net assets of the acquiree.
- There is not sufficient evidence to assess the marginal benefits of reporting the acquisition-date fair value of NCIs.
- Respondents to the exposure draft saw little information of value in the reported NCI, regardless of how it is measured.

One of the options considered by the IASB in writing the standard was to require the use of the fair value method for measuring the NCI but allowing entities to use the proportionate method where there exists 'undue cost or effort' in measuring the fair value. However, the IASB rejected this option as it did not think the term undue cost or effort would be applied consistently (paragraph BC215).

The IASB noted three main differences in outcome that occur where the partial goodwill method is used instead of the full goodwill method:

1. The amounts recognised for the NCI share of equity and goodwill would be lower.
2. Where IAS 36 *Impairment of Assets* is applied to a cash-generating unit containing goodwill, as the goodwill recognised by the CGU is lower, this affects the impairment loss relating to goodwill.
3. There is also an effect where an acquirer subsequently obtains further shares in the subsidiary at a later date. An explanation of this effect is beyond the scope of this book.

In choosing which method to use — full or partial goodwill — it is these three effects on the financial statements, both current and in the future, that must be taken into consideration. For example, if management has future intentions of acquiring more shares in the subsidiary (i.e. by acquiring some of the shares held by the NCI), then the potential impact on equity when that acquisition occurs will need to be considered.

23.2.4 Intragroup transactions

As already noted *(see chapter 22)*, because the transactions occur within the economic entity, the full effects of transactions within the group are adjusted on consolidation. In essence, the worksheet adjustment entries used in chapter 22 are the same regardless of whether the subsidiary is wholly or partly owned by its parent. The only exception to the entries used in chapter 22 is for dividends.

Where an NCI exists, any dividends declared or paid by a subsidiary are paid proportionately (to the extent of the ownership interest in the subsidiary) to the parent and proportionately to the NCI. In adjusting for dividends paid by a subsidiary, only the dividend paid or payable to the parent is eliminated on consolidation. In other words, there is a proportional adjustment of the dividend paid or declared. As with other intragroup transactions, the adjustment relates to the flow within the group. A payment or a declaration of dividends by a subsidiary reduces the NCI share of subsidiary equity because the equity of the subsidiary is reduced by the payment or declaration of dividends. In calculating the NCI share of subsidiary equity, the existence of dividends must be taken into consideration *(see section 23.3.3)*. Where a dividend is declared, the NCI share of equity is reduced, and a liability to pay dividends to the NCI is shown in the consolidated statement of financial position.

To illustrate, assume a parent owns 80% of the share capital of a subsidiary. In the current period, the subsidiary pays a \$1000 dividend and declares a further \$1500 dividend. The adjustment entries in the consolidation worksheet in the current period are:

Dividend Revenue	Dr	800	
Dividend Paid	Cr		800
(80% × \$1000)			
Dividend Payable	Dr	1 200	
Dividend Declared	Cr		1 200
(80% × \$1500)			
Dividend Revenue	Dr	1 200	
Dividend Receivable	Cr		1 200
(80% × \$1500)			

23.2.5 Consolidation worksheet

Because the disclosure requirements for the NCI require the extraction of the NCI share of various equity items, the consolidation worksheet is changed to enable this information to be produced. Figure 23.5 contains an example of the changed worksheet. In particular, note that two new columns are added, a *debit column* and a *credit column* for the calculation of the NCI share of equity. These two columns are not adjustment or elimination columns. Instead, they are used to divide consolidated equity into NCI share and parent entity share. The worksheet shown in figure 23.5 also contains a column showing the figures for the consolidated group. This column is shown between the adjustment columns and the NCI columns, and it is the summation of the financial statements of the group members and the consolidation adjustments. The parent figures are then determined by subtracting the NCI share of equity from the total consolidated equity of the group.

			Adjustments			Non-controlling interest		
Financial statements	**P Ltd**	**S Ltd**	**Dr**	**Cr**	**Group**	**Dr**	**Cr**	**Parent**
Profit/(loss)	5 000	4 000			9 000	400		8 600
Retained earnings (opening balance)	10 000	8 000			18 000	800		17 200
Transfer from reserves	4 000	2 000			6 000	200		5 800
Total available for appropriation	19 000	14 000			33 000			31 600
Interim dividend paid	2 000	1 500			3 500		150	3 350
Final dividend declared	4 000	2 500			6 500		250	6 250
Transfer to reserves	3 000	1 000			4 000		100	3 900
	9 000	5 000			14 000			13 500
Retained earnings (closing balance)	10 000	9 000			19 000			18 100
Share capital	50 000	40 000			90 000	4 000		86 000
Other reserves	30 000	20 000			50 000	2 000		48 000
	90 000	69 000			159 000			152 100
Asset revaluation surplus (opening balance)	4 000	5 000			9 000	500		8 500
Revaluation increases	2 000	2 000			4 000	200		3 800
Asset revaluation surplus (closing balance)	6 000	7 000			13 000			12 300
Total equity: parent								164 400
Total equity: NCI							7 600	7 600
Total equity	96 000	76 000			172 000	8 100	8 100	172 000
Current liabilities	3 000	2 000			5 000			
Non-current liabilities	8 000	6 000			14 000			
Total liabilities	11 000	8 000			19 000			
Total equity and liabilities	107 000	84 000			191 000			

FIGURE 23.5 Consolidation worksheet containing NCI columns

In figure 23.5, the amounts in the debit NCI column record the NCI share of the relevant equity item. This amount is subtracted in the consolidation process so that the consolidation column contains the parent's share of consolidated equity.

The first line in figure 23.5 is the consolidated profit/(loss) for the period. This amount is then attributed to the parent and the NCI. In all subsequent equity lines, the NCI share is recorded in the debit NCI column, and the parent's share of each equity account is calculated. The total NCI share of equity is then added to the parent column to give total consolidated equity.

The NCI share of retained earnings is increased by subsidiary profits and transfers from reserves, and decreased by transfers to reserves and payments and declarations of dividends. The total NCI share of equity is then the sum of the NCI share of capital, other reserves and retained earnings. The assets and liabilities of the group are shown in total and not allocated to the equity interests in the group — see, for example, the liabilities section in figure 23.5.

LO3

23.3 CALCULATING THE NCI SHARE OF EQUITY

Non-controlling interests in the net assets consist of the amount of those non-controlling interests at the date of the original combination calculated in accordance with IFRS 3 and the non-controlling interests' share of changes in equity since the date of the combination.

Changes in equity since the acquisition date must be taken into account. Note that these changes not only are in the recorded equity of the subsidiary, but also relate to other changes in consolidated equity. As noted earlier in this chapter, the NCI is entitled to a share of *consolidated* equity. This requires taking into account adjustments for profits or losses made as a result of intragroup transactions because these profits or losses are not recognised by the group.

The calculation of the NCI is done in two stages: (1) the NCI share of recorded equity is measured *(see section 23.3.1)*, and (2) this share is adjusted for the effects of intragroup transactions *(see section 23.4)*.

23.3.1 NCI share of recorded equity of the subsidiary

The equity of the subsidiary consists of the equity contained in the actual records of the subsidiary as well as any business combination valuation reserves created on consolidation at the acquisition date, where the identifiable assets and liabilities of the subsidiary are recorded at amounts different from their fair values. The NCI is entitled to a share of subsidiary equity at the end of the reporting period, which consists of the equity on hand at acquisition date plus any changes in that equity between acquisition date and the end of the reporting period. The calculation of the NCI share of equity at a point in time is done in three steps:

1. Determine the NCI share of equity of the subsidiary at acquisition date.
2. Determine the NCI share of the change in subsidiary equity between the acquisition date and the beginning of the current period for which the consolidated financial statements are being prepared.
3. Determine the NCI share of the changes in subsidiary equity in the current period.

The calculation could be represented diagrammatically, as shown in figure 23.6.

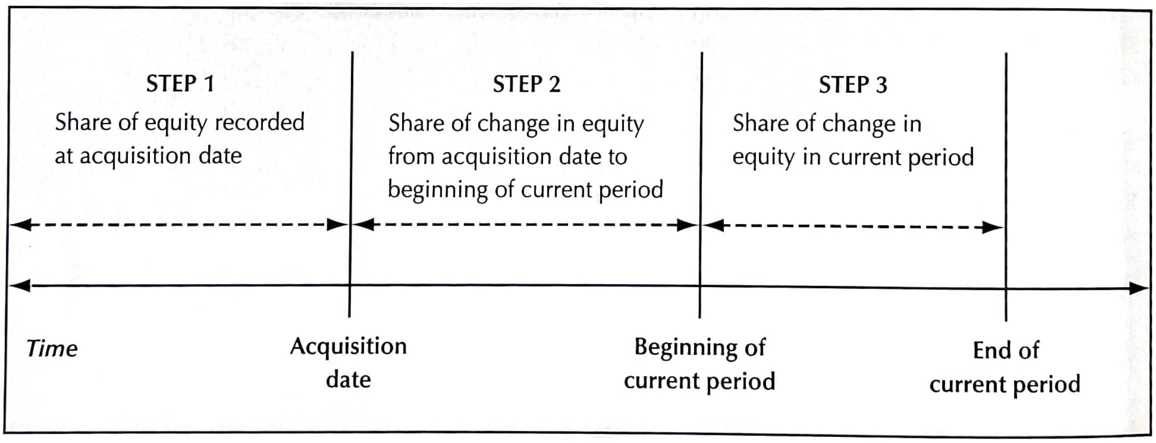

FIGURE 23.6 Calculating the NCI share of equity
Source: Based on a diagram by Peter Gerhardy, Ernst & Young, Adelaide.

Note that, in calculating the NCI share of equity at the end of the current period, the information relating to the NCI share of equity from steps 1 and 2 should be available from the previous period's consolidation worksheet.

To illustrate the above procedure, consider the calculation of the NCI share of retained earnings over a 5-year period. Assume the following information in relation to Cormorant Ltd:

Retained earnings as at 1 July 2011	$10 000
Retained earnings as at 30 June 2015	50 000
Profit for the 2015–16 period	15 000
Retained earnings as at 30 June 2016	65 000

Assume that Pelican Ltd had acquired 80% of the share capital of Cormorant Ltd at 1 July 2011, and the consolidated financial statements were being prepared at 30 June 2016. The 20% NCI in Cormorant Ltd is therefore entitled to a share of the retained earnings balance of \$65 000, a share equal to \$13 000. This share is calculated in three steps:

Step 1. A share of the balance at 1 July 2011 (20% × \$10 000)	=	\$ 2 000
Step 2. A share of the change in retained earnings from the acquisition date to the beginning of the current period (20% × [\$50 000 − \$10 000])	=	8 000
Step 3. A share of the current period increase in retained earnings (20% × \$15 000)	=	3 000
		\$13 000

The increase in retained earnings is broken into these three steps because accounting is based on time periods. The NCI is entitled to a share of the profits of past periods as well as a share of the profits of the current period. Note that, in calculating the NCI share of retained earnings for Cormorant Ltd at 30 June 2017 (1 year after the above calculation), the total of steps 1 and 2 for the 2017 calculation would be \$13 000, as calculated above. The only additional calculation would be the share of changes in retained earnings in the 2016–17 period.

The separate calculations are not based on a division of equity into pre-acquisition and post-acquisition equity. The division of equity is based on *time* — changes in equity are calculated on a period-by-period basis for accounting purposes.

The NCI columns in the consolidation worksheet contain the amounts relating to the three steps noted above. The journal entries used in the NCI columns of the consolidation worksheet to reflect the NCI share of equity are based on the three-step approach. The form of these entries is:

Step 1: NCI at acquisition date			
Share Capital	Dr	xxx	
Business Combination Valuation Reserve	Dr	xxx	
Retained Earnings (opening balance)	Dr	xxx	
NCI	Cr		xxx
Step 2: NCI share of changes in equity between acquisition date and beginning of the current period			
Retained Earnings (opening balance)	Dr	xxx	
NCI	Cr		xxx
Step 3: NCI share of changes in equity in the current period			
NCI Share of Profit/(Loss)	Dr	xxx	
NCI	Cr		xxx
Asset Revaluation Increases	Dr	xxx	
NCI	Cr		xxx
NCI	Dr	xxx	
Dividend Paid	Cr		xxx
NCI	Dr	xxx	
Dividend Declared	Cr		xxx

The effects of these journal entries can be seen in the consolidation worksheet in figure 23.5. The above entries are illustrative only, and there may be others where there are transfers to or from reserves that affect the balances of equity in the subsidiary. The effects of these transactions are illustrated in the next section.

23.3.2 Accounting at acquisition date

This section illustrates the effects that the existence of an NCI has on the valuation entries, the acquisition analysis and the elimination of investment in subsidiary, as well as the step 1 calculation of the NCI share of equity at acquisition date. *As noted in section 23.2*, the acquisition analysis and subsequent consolidation worksheet entries are affected by whether the full goodwill or partial goodwill option is used in the measurement of the NCI's share of the subsidiary at acquisition date. The choice of method affects the accounting at acquisition date but has an effect on accounting subsequent to acquisition date only if there is an impairment of goodwill or the parent changes its equity interest in the subsidiary. Neither of these events is covered in this book.

Full goodwill method

ILLUSTRATIVE EXAMPLE 23.1 Consolidation worksheet entries at acquisition date

On 1 July 2013, Heron Ltd acquired 60% of the shares (cum div.) of Petrel Ltd for $45 600 when the equity of Petrel Ltd consisted of:

Share capital	$40 000
General reserve	2 000
Retained earnings	2 000

At acquisition date, the liabilities of Petrel Ltd included a dividend payable of $1000. All the identifiable assets and liabilities of Petrel Ltd were recorded at fair value except for equipment and inventory:

	Carrying amount	Fair value
Equipment (cost $250 000)	$180 000	$200 000
Inventory	40 000	50 000

The tax rate is 30%. The fair value of the NCI in Petrel Ltd at 1 July 2013 was $28 000.

Acquisition analysis

Net fair value of identifiable assets and liabilities of Petrel Ltd	= $40 000 (capital) + $2000 (general reserve) + $2000 (retained earnings) + $20 000(1 – 30%) (BCVR — equipment) + $10 000(1 – 30%) (BCVR — inventory)
	= $65 000
(a) Consideration transferred	= $45 600 – (60% × $1000) (dividend receivable)
	= $45 000
(b) Non-controlling interest in Petrel Ltd	= $28 000
Aggregate of (a) and (b)	= $73 000
Goodwill	= $73 000 – $65 000
	= $8000
Goodwill of Petrel Ltd	
Fair value of Petrel Ltd	= $28 000/40%
	= $70 000
Net fair value of identifiable assets and liabilities of Petrel Ltd	= $65 000
Goodwill of Petrel Ltd	= $70 000 – $65 000
	= $5000
Goodwill of Heron Ltd	
Goodwill acquired	= $8000
Goodwill of Petrel Ltd	= $5000
Goodwill of Heron Ltd — control premium	= $3000

Where an NCI exists, because the parent acquires only a part of the ownership interest of the subsidiary, the parent acquires only a proportionate share of each of the equity amounts in the subsidiary.

(1) *Business combination valuation entries*

The valuation entries are unaffected by the existence of an NCI. The purpose of these entries, in accordance with IFRS 3, is to show the assets and liabilities of the subsidiary at fair value at acquisition date. The entries for a consolidation worksheet (see figure 23.7 overleaf) prepared at acquisition date are:

Accumulated Depreciation – Equipment	Dr	70 000	
Equipment	Cr		50 000
Deferred Tax Liability	Cr		6 000
Business Combination Valuation Reserve	Cr		14 000
Inventory	Dr	10 000	
Deferred Tax Liability	Cr		3 000
Business Combination Valuation Reserve	Cr		7 000
Goodwill	Dr	5 000	
Business Combination Valuation Reserve	Cr		5 000

The business combination valuation reserve is pre-acquisition equity because it is recognised on consolidation at acquisition date. The NCI is entitled to a proportionate share of this reserve.

(2) *Elimination of investment and recognition of goodwill*

The first journal entry is read from the pre-acquisition analysis. The parent's proportional share of the various recorded equity accounts of the subsidiary, as well as the parent's share of the business combination valuation reserves, are eliminated against the investment account in the pre-acquisition entry. The goodwill relating to the control premium is also recognised. In this illustrative example, the elimination of investment in subsidiary is:

Retained Earnings (1/7/13) [60% × $2000]	Dr	1 200	
Share Capital [60% × $40 000]	Dr	24 000	
Business Combination Valuation Reserve [60% × ($14 000 + $7000 + $5000)]	Dr	15 600	
General Reserve [60% × $2000]	Dr	1 200	
Goodwill	Dr	3 000	
Shares in Petrel Ltd	Cr		45 000

At acquisition date, the subsidiary has recorded a dividend payable and the parent entity a dividend receivable. An adjustment entry is required because these are not dividends receivable or payable to parties external to the group. The adjustment is a proportional one as it relates only to the amount payable within the group:

Dividend Payable	Dr	600	
Dividend Receivable	Cr		600
[60% × $1000]			

No further adjustment is required once the dividend has been paid.

(3) *NCI share of equity at acquisition date*

The NCI at acquisition date (the step 1 calculation) is determined as the proportional share of the equity recorded by the subsidiary at that date and the valuation reserves recorded on consolidation:

Share capital	40% × $40 000	= $16 000
General reserve	40% × $2000	= 800
Business combination valuation reserve	40% × ($14 000 + $7000 + $5000)	= 10 400
Retained earnings	40% × $2000	= 800
		$28 000

The following entry is then passed in the NCI columns of the consolidation worksheet:

Retained Earnings (1/7/13)	Dr	800	
Share Capital	Dr	16 000	
Business Combination Valuation Reserve	Dr	10 400	
General Reserve	Dr	800	
NCI	Cr		28 000

This entry is passed as the step 1 NCI entry in all subsequent consolidation worksheets. It is never changed. Any subsequent changes in pre-acquisition equity are dealt with in the step 2 NCI calculation.

Figure 23.7 shows an extract from a consolidation worksheet for Heron Ltd and its subsidiary, Petrel Ltd, at acquisition date. Only the equity section of the worksheet is shown. The worksheet entries are (1) the business combination valuation entries, (2) the elimination of the investment and the recognition of goodwill (the dividend adjustment is not shown in figure 23.7 because only an extract from the worksheet is reproduced), and (3) the NCI step 1 entry.

				Adjustments					Non-controlling interest			
Financial statements	Heron Ltd	Petrel Ltd		Dr	Cr		Group		Dr	Cr		Parent
Retained earnings (1/7/13)	50 000	2 000	2	1 200			50 800	3	800			50 000
Share capital	100 000	40 000	2	24 000			116 000	3	16 000			100 000
General reserve	20 000	2 000	2	1 200			20 800	3	800			20 000
Business combination valuation reserve			2	15 600	14 000	1	10 400	3	10 400			0
					7 000	1						
					5 000	1						
Total equity: parent												170 000
Total equity: NCI										28 000	3	28 000
Total equity	170 000	44 000					198 000		28 000	28 000		198 000

FIGURE 23.7 Consolidation worksheet (extract) at acquisition date

Note that, in figure 23.7, the adjustment columns eliminate the parent's share of the pre-acquisition equity accounts and the NCI columns extract the NCI share of total equity. The parent column contains only the parent's share of post-acquisition equity, which in this case, being at acquisition date, is zero.

Partial goodwill method

ILLUSTRATIVE EXAMPLE 23.2 Consolidation worksheet entries at acquisition date

On 1 July 2013, Heron Ltd acquired 60% of the shares (cum div.) of Petrel Ltd for $45 600 when the equity of Petrel Ltd consisted of:

Share capital	$40 000
General reserve	2 000
Retained earnings	2 000

At acquisition date, the liabilities of Petrel Ltd included a dividend payable of $1000. All the identifiable assets and liabilities of Petrel Ltd were recorded at fair value except for equipment and inventory:

	Carrying amount	Fair value
Equipment (cost $250 000)	$180 000	$200 000
Inventory	40 000	50 000

The tax rate is 30%.

Net fair value of identifiable assets and liabilities of Petrel Ltd	= \$40 000 (capital) + \$2000 (general reserve) + \$2000 (retained earnings) + \$20 000(1 – 30%) (BCVR — equipment) + \$10 000(1 – 30%) (BCVR — inventory)
	= \$65 000
(a) Consideration transferred	= \$45 600 – (60% × \$1000) (dividend receivable)
	= \$45 000
(b) Non-controlling interest in Petrel Ltd	= 40% × \$65 000
	= \$26 000
Aggregate of (a) and (b)	= \$71 000
Goodwill	= \$71 000 – \$65 000
	= \$6000

Where an NCI exists, because the parent acquires only a part of the ownership interest of the subsidiary, the parent acquires only a proportionate share of each of the equity amounts in the subsidiary.

(1) *Business combination valuation entries*

The valuation entries are unaffected by the existence of an NCI. The purpose of these entries, in accordance with IFRS 3, is to show the assets and liabilities of the subsidiary at fair value at acquisition date. The entries for a consolidation worksheet (see figure 23.8 overleaf) prepared at acquisition date are:

Accumulated Depreciation – Equipment	Dr	70 000	
Equipment	Cr		50 000
Deferred Tax Liability	Cr		6 000
Business Combination Valuation Reserve	Cr		14 000
Inventory	Dr	10 000	
Deferred Tax Liability	Cr		3 000
Business Combination Valuation Reserve	Cr		7 000

Note that there is no business combination valuation entry for goodwill as under the partial goodwill method only the parent's share of goodwill is recognised, and this is done in the pre-acquisition entry. The business combination valuation reserve is pre-acquisition equity because it is recognised on consolidation at acquisition date. The NCI is entitled to a proportionate share of this reserve. Because the reserve is recognised by the group, but not in the records of the subsidiary, this affects later calculations for the NCI share of equity.

(2) *Elimination of investment and recognition of goodwill*

The first elimination of investment in subsidiary is read from the pre-acquisition analysis. The parent's proportional share of the various recorded equity accounts of the subsidiary, as well as the parent's share of the business combination valuation reserves, are eliminated against the investment account in the pre-acquisition entry, and the parent's share of goodwill is recognised. In this illustrative example, the elimination of investment in subsidiary is:

Retained Earnings (1/7/13) [60% × \$2000]	Dr	1 200	
Share Capital [60% × \$40 000]	Dr	24 000	
Business Combination Valuation Reserve [60% × (\$14 000 + \$7000)]	Dr	12 600	
General Reserve [60% × \$2000]	Dr	1 200	
Goodwill	Dr	6 000	
Shares in Petrel Ltd	Cr		45 000

At acquisition date, the subsidiary has recorded a dividend payable and the parent entity a dividend receivable. An adjustment entry is required because these are not dividends receivable or payable to parties external to the group. The adjustment is a proportional one as it relates only to the amount payable within the group:

Dividend Payable	Dr	600	
Dividend Receivable	Cr		600
[60% × $1000]			

No further adjustment is required once the dividend has been paid.

(3) *NCI share of equity at acquisition date*

The NCI at acquisition date (the step 1 calculation) is determined as the proportional share of the equity recorded by the subsidiary at that date and the valuation reserves recorded on consolidation:

Share capital	40% × $40 000	=	$16 000
General reserve	40% × $2000	=	800
Business combination valuation reserve	40% × ($14 000 + $7000)	=	8 400
Retained earnings	40% × $2000	=	800
			$26 000

The following entry is then passed in the NCI columns of the consolidation worksheet:

Retained Earnings (1/7/13)	Dr	800	
Share Capital	Dr	16 000	
Business Combination Valuation Reserve	Dr	8 400	
General Reserve	Dr	800	
NCI	Cr		26 000

This entry is passed as the step 1 NCI entry in all subsequent consolidation worksheets. It is never changed. Any subsequent changes in pre-acquisition equity are dealt with in the step 2 NCI calculation.

Figure 23.8 shows an extract from a consolidation worksheet for Heron Ltd and its subsidiary, Petrel Ltd, at acquisition date. Only the equity section of the worksheet is shown. The worksheet entries are (1) the business combination valuation entries, (2) the elimination of investment and recognition of goodwill (the dividend adjustment is not shown in figure 23.8 because only an extract from the worksheet is reproduced), and (3) the NCI step 1 entry.

Note that, in figure 23.8, the adjustment columns eliminate the parent's share of the pre-acquisition equity accounts and the NCI columns extract the NCI share of total equity. The parent column contains only the parent's share of post-acquisition equity, which in this case, being at acquisition date, is zero.

				Adjustments					Non-controlling interest			
Financial statements	Heron Ltd	Petrel Ltd		Dr	Cr		Group		Dr	Cr		Parent
Retained earnings (1/7/13)	50 000	2 000	2	1 200			50 800	3	800			50 000
Share capital	100 000	40 000	2	24 000			116 000	3	16 000			100 000
General reserve	20 000	2 000	2	1 200			20 800	3	800			20 000
Business combination valuation reserve			2	12 600	14 000	1	8 400	3	8 400			0
					7 000	1						
Total equity: parent												170 000
Total equity: NCI										26 000	3	26 000
Total equity	170 000	44 000					196 000		26 000	26 000		196 000

FIGURE 23.8 Consolidation worksheet (extract) at acquisition date

23.3.3 Accounting subsequent to acquisition date

Using illustrative example 23.2, the consolidation worksheet entries at the end of the period 3 years after the acquisition date are now considered. These entries are based on the *partial goodwill* method. However, the effects of the events occurring subsequent to acquisition date on the elimination of investment and recognition of goodwill and business combination valuation entries are the same for the full goodwill method. Assume that:

- all inventory on hand at 1 July 2013 is sold by 30 June 2014
- the dividend payable at acquisition date is paid in August 2013
- the equipment has an expected useful life of 5 years
- goodwill has not been impaired
- in the 3 years after the acquisition date, Petrel Ltd recorded the changes in equity shown in figure 23.9.

In preparing the consolidated financial statements at 30 June 2016, the consolidation worksheet contains the valuation entries, the elimination of investment and recognition of goodwill entries, the NCI entries and the adjustments for the dividend transactions.

	2013–14	2014–15	2015–16
Profit for the period	$ 8 000	$12 000	$15 000
Retained earnings (opening balance)	2 000	7 800	16 000
	10 000	19 800	31 000
Transfer from general reserve	—	—	500
	10 000	19 800	31 500
Transfer to general reserve	—	1 000	—
Dividend paid	1 000	1 200	1 500
Dividend declared	1 200	1 600	2 000
	2 200	3 800	3 500
Retained earnings (closing balance)	7 800	16 000	28 000
Share capital	40 000	40 000	40 000
General reserve	2 000	3 000	2 500
Other components of equity*	2 000	2 500	2 400

* Resulted from movement in fair value of financial assets.

FIGURE 23.9 Changes in equity over a 3-year period

(1) *Business combination valuation entries*
The valuation entries for the 2015–16 period differ from those prepared at acquisition date in that the equipment is depreciated, and the inventory has been sold. The entries at 30 June 2016 are:

Accumulated Depreciation – Equipment	Dr	70 000	
Equipment	Cr		50 000
Deferred Tax Liability	Cr		6 000
Business Combination Valuation Reserve	Cr		14 000
Depreciation Expense	Dr	4 000	
Retained Earnings (1/7/15)	Dr	8 000	
Accumulated Depreciation	Cr		12 000
(20% × $20 000 p.a.)			
Deferred Tax Liability	Dr	3 600	
Income Tax Expense	Cr		1 200
Retained Earnings (1/7/15)	Cr		2 400
(30% × $4000 p.a.)			

(If the full goodwill method had been used, the business combination entry relating to goodwill would be included at 30 June 2016 and would be the same as that used at acquisition date.)

(2) *Elimination of investment and recognition of goodwill*
The elimination of investment and recognition of goodwill entries have to take into consideration the following events occurring since acquisition date:

- The dividend of $1000 on hand at acquisition date has been paid.
- The inventory on hand at acquisition date has been sold.

The entry at 30 June 2016 is:

Retained Earnings (1/7/15)*	Dr	5 400	
Share Capital	Dr	24 000	
Business Combination Valuation Reserve**	Dr	8 400	
General Reserve	Dr	1 200	
Goodwill	Dr	6 000	
Shares in Petrel Ltd	Cr		45 000

* $1200 + (60% × $7000) (BCVR transfer — inventory)
** 60% × $14 000

(3) *NCI share of equity at acquisition date (step 1)*
The NCI share of equity at acquisition date is as calculated previously. This entry is never changed from that calculated at that date — this applies whether the full goodwill or partial goodwill method is used.

Retained Earnings (1/7/15)	Dr	800	
Share Capital	Dr	16 000	
Business Combination Valuation Reserve	Dr	8 400	
General Reserve	Dr	800	
NCI	Cr		26 000

(4) *NCI share of changes in equity between acquisition date and beginning of the current period* (i.e. from 1 July 2013 to 30 June 2015) (step 2)
To calculate this entry, it is necessary to note any changes in subsidiary equity between the two dates. The changes will generally relate to movements in retained earnings and reserves, but changes in share capital, such as when a bonus dividend is paid, could occur.

In this example, there are four changes in subsidiary equity, as shown in figure 23.9:

- Retained earnings increased from $2000 to $16 000 — this will increase the NCI share of retained earnings.
- In the 2014–15 period, $1000 was transferred to the general reserve. Because the transfer has reduced retained earnings, the NCI share of retained earnings as calculated above has been reduced by this transfer; an increase in the NCI share of general reserve needs to be recognised as well as an increase in NCI in total.
- The sale of inventory in the 2013–14 period resulted in a transfer of $7000 from the business combination valuation reserve to retained earnings. Because the profits from the sale of inventory are recorded in the profits of the subsidiary, the NCI receives a share of the increased wealth relating to inventory. The NCI share of the business combination valuation reserve as recognised in step 1 must be reduced, with a reduction in NCI in total.
- Other components of equity increased by $2500, increasing the NCI share of equity by $1000.

Before noting the effects of these events in journal entry format, adjustments relating to the equipment on hand at acquisition date need to be considered. In the business combination valuation entry, the equipment on hand at acquisition date was revalued to fair value and the increase taken to the valuation reserve. By recognising the asset at fair value at acquisition date, the group recognises the extra benefits over and above the asset's carrying amount to be earned by the subsidiary. As expressed in the depreciation of the equipment (see the valuation entries above), the group expects the subsidiary to realise extra after-tax benefits of $2800 (i.e. $4000 depreciation expense less the credit of $1200 to income tax expense) in each of the 5 years after acquisition. Whereas the group recognises these extra benefits at acquisition date via the valuation reserve, the subsidiary recognises these benefits as profit in its records only as the equipment is used. Hence, the profit after tax recorded by the subsidiary in each of the 5 years after acquisition date will contain $2800 benefits from the equipment that the group recognised in the valuation reserve at acquisition date.

In calculating the NCI share of equity from acquisition date to the beginning of the current period, the NCI calculation will double-count the benefits from the equipment if there is no adjustment for the depreciation of the equipment. This occurs because the share of the NCI in equity calculated at acquisition date includes a share of the business combination valuation reserve created at that date in the consolidation worksheet. Therefore, giving the NCI a full share of the recorded profits of the subsidiary in the 5 years after acquisition date double-counts the benefits relating to the equipment. The NCI has already received a share of the valuation reserve in the step 1 calculation. Hence, in calculating the NCI share of changes in equity between acquisition date and the beginning of the current period (the step 2 calculation), there needs to be an adjustment for the extra depreciation of the equipment in relation to each of the years since acquisition date.

The adjustment for depreciation can be read directly from the valuation entry that records the depreciation on the equipment since acquisition date. In the valuation entry required for the 2015–16 consolidated financial statements (see (1) *Business combination valuation entries above*), there is a net debit adjustment to retained earnings (1/7/15) of $5600 (i.e. the $8000 adjustment for previous periods' depreciation less the $2400 adjustment for previous periods' tax effect) in relation to the after-tax effects of depreciating the equipment. This reflects the extra benefits received by the subsidiary as a result of using the equipment and recorded by the subsidiary in its retained earnings account.

In this example, the only adjustment to retained earnings in the business combination valuation entry is that relating to the equipment. In other examples, there may be a number of adjustments to retained earnings depending on the number of assets being revalued. All such adjustments must be taken into account in order not to double-count the NCI share of equity. In other words, to determine the adjustments needed to avoid double-counting, all adjustments to retained earnings in the valuation entries must be taken into consideration.

In illustrative example 23.2, the NCI share of changes in *retained earnings* is determined by calculating the change in retained earnings over the period, less the adjustment against retained earnings in the valuation entry relating to depreciation of the equipment. The amount is calculated as follows:

$$40\% \times (\$16\,000 - \$2000 - [\$8000 - \$2400]) = \$3360$$

The NCI is also entitled to a share of the change in *general reserve* between acquisition date and the beginning of the current period, the change being the transfer to general reserve in the 2014–15 period. As the general reserve is increased, the NCI share of that account is also increased. The calculation is:

$$40\% \times \$1000 = \$400$$

The NCI is also entitled to a share of the movement in *other components of equity*. There was no balance in this account at acquisition date, and balance at 30 June 2015 is $2500, so the NCI's share is:

$$40\% \times \$2500 = \$1000$$

The NCI is also affected by the transfer on consolidation from the *business combination valuation reserve* to retained earnings as a result of the sale of inventory. The NCI share of the valuation reserve is decreased, with a reduction in NCI in total. The calculation is:

$$40\% \times \$7000 = \$2800$$

The consolidation worksheet entries in the NCI columns for the step 2 NCI calculation are:

Retained Earnings (1/7/15)	Dr	3 360	
NCI	Cr		3 360
(40% × [$16 000 − $2000 − ($8000 − $2400)])			
General Reserve	Dr	400	
NCI	Cr		400
(40% × $1000)			
Other Components of Equity	Dr	1 000	
NCI	Cr		1 000
(40% × $2500)			
NCI	Dr	2 800	
Business Combination Valuation Reserve	Cr		2 800
(40% × $7000)			

These entries may be combined as:

Retained Earnings (1/7/15)	Dr	3 360	
General Reserve	Dr	400	
Other Components of Equity	Dr	1 000	
Business Combination Valuation Reserve	Cr		2 800
NCI	Cr		1 960

(5) *NCI share of current period changes in equity (step 3)*

From figure 23.9 it can be seen that there are four changes in equity in the 2015–16 period:

- Petrel Ltd has reported a profit of $15 000.
- There has been a transfer from general reserve of $500.
- The subsidiary has paid a dividend of $1500 and declared a dividend of $2000.
- Other components of equity has decreased by $100.

In relation to both dividends and transfer to/from reserves, from an NCI perspective note that it is irrelevant whether the amounts are from pre- or post-acquisition equity. The NCI receives a share of all equity accounts regardless of whether it existed before acquisition date or was created after that date.

The NCI share of *current period profit* is based on a 40% share of the recorded profit of $15 000. However, just as in step 2, there must be an adjustment made to avoid the double counting caused by the subsidiary recognising profits from the use of the equipment, these benefits having been recognised on consolidation in the business combination valuation reserve. Again, reference needs to be made to the valuation entries, and in particular to the amounts in these entries affecting current period profit. In the valuation entries, there is a debit adjustment to depreciation expense of $4000 and a credit adjustment to income tax expense of $1200. In other words, in the current period, Petrel Ltd recognised in its profit an amount of $2800 from the use of the equipment that was recognised by the group in the business combination valuation reserve. Since the NCI has been given a share of the valuation reserve in step 1, to give the NCI a share of the recorded profit without adjusting for the current period's depreciation would double-count the NCI share of equity. The NCI share of current period profit is, therefore, 40% of the net of recorded profit of $15 000 less the after-tax depreciation adjustment of $2800.

The consolidation worksheet entry in the NCI columns is:

NCI Share of Profit/(Loss)	Dr	4 880	
NCI	Cr		4 880
(40% × [$15 000 − ($4000 − $1200)])			

In the current period, a change in equity is caused by the $500 *transfer from general reserve* to retained earnings. This transaction does not change the amount of equity in total because it is a transfer between equity accounts, so there is no change to the NCI in total. However, the NCI share of general reserve has decreased and the NCI share of retained earnings has increased. For the latter account, the appropriate line item is 'Transfer from General Reserve'. The consolidation worksheet entry in the NCI columns is:

Transfer from General Reserve	Dr	200	
General Reserve	Cr		200
(40% × $500)			

The third change in equity in the current period relates to *dividends paid and declared*. Dividends are a reduction in retained earnings. The NCI share of equity is reduced as a result of the payment or declaration of dividends. Where dividends are paid, the NCI receives a cash distribution as compensation for the reduction in equity. Where dividends are declared, the group recognises a liability to make a future cash payment to the NCI as compensation for the reduction in equity. The consolidation worksheet entries in the NCI column are:

NCI	Dr	600	
Dividend Paid	Cr		600
(40% × $1500)			
NCI	Dr	800	
Dividend Declared	Cr		800
(40% × $2000)			

The fourth change in equity is the $100 reduction in *other components of equity*. This results in a reduction in the NCI share of this account that relates to financial assets as well as a reduction in NCI in total. The entry in the NCI columns is:

NCI	Dr	40	
Other Components of Equity	Cr		40
(40% × $100)			

(6) *Adjustments for intragroup transactions: dividends*

The entries below and shown in the adjustment columns of the worksheet are necessary to adjust for the dividend transactions in the current period — note that the amounts are based on the proportion of dividends paid within the group.

Dividend Revenue	Dr	900	
Dividend Paid	Cr		900
(60% × $1500)			
Dividend Payable	Dr	1 200	
Dividend Declared	Cr		1 200
(60% × $2000)			
Dividend Revenue	Dr	1 200	
Dividend Receivable	Cr		1 200
(60% × $2000)			

Using the figures for the subsidiary for the year ended 30 June 2016, as given in figure 23.9, and assuming information for the parent, a consolidation worksheet showing the effects of the entries developed in illustrative example 23.2 is given in figure 23.10.

				Adjustments					Non-controlling interest			
Financial statements	Heron Ltd	Petrel Ltd		Dr	Cr		Group		Dr	Cr		Parent
Profit/(loss) for the period	20 000	15 000	1	4 000	1 200	1	30 100	5	4 880			25 220
			6	900								
			6	1 200								
Retained earnings (1/7/17)	25 000	16 000	1	8 000	2 400	1	30 000	3	800			25 840
			2	5 400								
Transfer from general reserve	—	500					500	5	200			300
	45 000	31 500					60 600					51 360
Dividend paid	10 000	1 500			900	2	10 600			600	5	10 000
					300	6						
Dividend declared	5 000	2 000				6	5 800			800	5	5 000
	15 000	3 500					16 400					15 000
Retained earnings (30/6/18)	30 000	28 000					44 200					36 660
Share capital	100 000	40 000	2	24 000			116 000	3	16 000			
General reserve	20 000	2 500	2	1 200			21 300	3	800	200	5	20 300
								4	400			
Business combination valuation reserve	—	—	2	8 400	14 000	1	5 600	3	8 400	2 800	4	—
	150 000	70 500					187 100					156 660
Other components of equity (1/7/17)	10 000	2 500					12 500	4	1 000			11 500
Increases/(decreases)	2 000	(100)					1 900			40	5	1 940
Other components of equity (30/6/18)	12 000	2 400					14 400					13 440
Total equity: parent												170 100
Total equity: NCI								5	600	26 000	3	31 400
								5	800	1 960	4	
								5	40	4 880	5	
Total equity	162 000	72 900					201 500		37 280	37 280		201 500

FIGURE 23.10 Consolidation worksheet with NCI columns

LO4

23.4 ADJUSTING FOR THE EFFECTS OF INTRAGROUP TRANSACTIONS

The justification for considering adjustments for intragroup transactions in the calculation of the NCI share of equity is that the NCI is classified as a contributor of capital to the group. Thus, the calculation of the NCI is based on a share of *consolidated equity* and not equity as recorded by the subsidiary. Consolidated equity is determined as the sum of the equity of the parent and the subsidiaries after making adjustments for the effects of intragroup transactions. The NCI share of that equity must, therefore, be based on subsidiary equity after adjusting for intragroup transactions that affect the subsidiary's equity.

To illustrate, assume that during the current period a subsidiary in which there is an NCI of 20% has recorded a profit of $20 000 which includes a before-tax profit of $2000 on sale of $18 000 inventory to the parent. The inventory is still on hand at the end of the current period. In the adjustment columns of the consolidation worksheet, the adjustment entries for the sale of inventory, assuming a tax rate of 30%, are:

Sales	Dr	18 000	
Cost of Sales	Cr		16 000
Inventory	Cr		2 000
Deferred Tax Asset	Dr	600	
Income Tax Expense	Cr		600

The group does not regard the after-tax profit of $1400 as being a part of consolidated profit. Hence, in calculating the NCI share of consolidated profit, the NCI is entitled to $3720; that is, 20% × ($20 000 recorded profit – $1400 intragroup profit).

The NCI share of equity is therefore adjusted for the effects of intragroup transactions. However, note that the NCI share of consolidated equity is essentially based on a share of *subsidiary* equity. Therefore, only intragroup transactions that affect the subsidiary's equity need to be taken into consideration. Profits made on inventory sold by the parent to the subsidiary do not affect the calculation of the NCI because the profit is recorded by the parent, not the subsidiary — the subsidiary equity is unaffected by the transaction.

In section 23.3, it is explained that the NCI share of the equity recorded by the subsidiary is calculated in three steps:

Step 1. share of equity at acquisition date
Step 2. share of changes in equity between acquisition date and the beginning of the current period
Step 3. share of changes in equity in the current period.

These calculations are based on the *recorded* subsidiary equity; that is, equity that will include the effects of the intragroup transactions. Having calculated the NCI as a result of the three-step process, the subsidiary needs to make further adjustments for the effects of intragroup transactions. Rather than adjust for these transactions in the NCI entries relating to the three-step process, the adjustments to the NCI are determined when the adjustments are made for the effects of the specific intragroup transactions.

For example, consider the case above where a subsidiary in which the NCI is 20% records a profit of $20 000, which includes a $2000 before-tax profit on the sale of inventory to the parent (cost $4000, selling price $6000). In the step 3 NCI calculation, the worksheet entry passed in the NCI columns is:

NCI Share of Profit/(Loss)	Dr	4 000	
NCI	Cr		4 000
[20% × $20 000 recorded profit]			

In making the adjustment for the effects of intragroup transactions to be passed in the adjustment columns of the worksheet, the following entries are made:

Profit in closing inventory: subsidiary to parent			
Sales	Dr	6 000	
Cost of Sales	Cr		4 000
Inventory	Cr		2 000
Deferred Tax Asset	Dr	600	
Income Tax Expense	Cr		600
[30% × $2000]			

As this adjustment affects the profit of the subsidiary by an amount of $1400 after tax (i.e. $2000 – $600), this triggers the need to make an adjustment to the NCI, and the following entry is passed in the NCI columns of the worksheet:

NCI	Dr	280	
NCI Share of Profit/(Loss) [20% × $1400]	Cr		280

[This entry is explained in more detail in illustrative example 23.3 later in this chapter.]

The combined effect of the step 3 NCI entry and this last entry is that the NCI totals $3720 — that is, $4000 less $280. Thus the NCI is given a share of recorded profit adjusted for the effects of intragroup transactions.

23.4.1 The concept of 'realisation' of profits or losses

Not all transactions require an adjustment entry for the NCI. For a transaction to require an adjustment to the calculation of the NCI share of equity, it must have the following characteristics:

- The transaction must result in the subsidiary recording a profit or a loss.
- After the transaction, the other party to the transaction (for two-company structures this is the parent) must have on hand an asset (e.g. inventory) on which the unrealised profit is accrued.
- The initial consolidation adjustment for the transaction should affect both the statement of financial position and the statement of profit or loss and other comprehensive income (including appropriations of retained earnings), unlike payments of debenture interest, which affect only the statement of profit or loss and other comprehensive income.

In determining the transactions requiring an adjusting entry for the NCI, it is important to work out which transactions involve unrealised profit. *The concept of 'realisation' is discussed in chapter 22.* The test for realisation is the involvement of a party external to the group, based on the concept that the consolidated financial statements report the affairs of the group in terms of its dealings with entities external to the group. Consolidated profits are therefore realised profits as they result from dealing with entities external to the group. Profits made by transacting within the group are unrealised because no external entity is involved. Once the profits or losses on an intragroup transaction become realised, the NCI share of equity no longer needs to be adjusted for the effects of an intragroup transaction because the profits or losses recorded by the subsidiary are all realised profits.

In this section, the key point to note is when, for different types of transactions, unrealised profits on intragroup transactions become realised.

Inventory

With inventory, realisation occurs when the acquiring entity sells the inventory to an entity outside the group. Consolidation adjustments for inventory are based on the profit or loss remaining in inventory on hand at the end of a financial period. If inventory is sold in the current period by the subsidiary to the parent at a profit, giving the NCI a share of the recorded profit will overstate the NCI share of consolidated equity, because the group does not recognise the profit until the inventory is sold outside the group. Hence, whenever consolidated adjustments are made for profit remaining in inventory on hand at the end of the period, an NCI adjustment is necessary to reduce the NCI share of current period profit and the NCI total. Following the consolidation adjustment for the unrealised profit in inventory, an NCI adjustment entry is made in the NCI columns of the worksheet. The general form of the entry is:

NCI	Dr	xxx	
NCI Share of Profit/(Loss)	Cr		xxx

If there is inventory on hand at *the beginning of the current period*, the NCI share of the previous period's profit must be reduced as the subsidiary's previous year's recorded profit contains unrealised profit. As the group realises the profit in the current period when the inventory is sold to external parties, the NCI share of the current period profit must be increased. Following the worksheet adjustment for the profit remaining in beginning inventory, an NCI adjustment entry is made in the NCI columns of the worksheet. The general form of the NCI entry is:

NCI Share of Profit/(Loss)	Dr	xxx	
Retained Earnings (opening balance)	Cr		xxx

Intragroup transfers for services and interest

For transactions involving services and interest, the group's profit is unaffected because the general consolidation adjustment reduces both expense and revenue equally. However, from the NCI's perspective, there has been a change in the equity of the subsidiary; for example, the subsidiary may have recorded interest revenue as a result of a payment to the parent entity relating to an intragroup loan. The revenue is unrealised in that no external entity has been involved in the transaction. Theoretically, the NCI should be adjusted for such transactions. However, as noted in paragraph B86(c) of IFRS 10, it is profits or losses 'recognised in assets' that are of concern. In other words, where there are transfers between entities that do not result in the retention within the group of assets on which the profit has been accrued, it is *assumed* that the profit is realised by the group immediately on payment within the group. For transactions such as payments for intragroup services, interest and dividends, there are no assets recorded with accrued profits attached, since the transactions are cash transactions. Hence, the profit is assumed to be immediately realised. The reason for the assumption of immediate realisation of profits on these types of transactions is a pragmatic one based on the cost benefit of determining a point of realisation.

LO5

23.5 GAIN ON BARGAIN PURCHASE

This chapter has used examples of business combinations where goodwill has been acquired. In the rare case that a gain on bargain purchase may arise, such a gain has no effect on the calculation of the NCI share of equity. Further, whereas the goodwill of the subsidiary may be determined by calculating the goodwill acquired by the parent entity and then grossing this up to determine the goodwill for the subsidiary, this process is not applicable for the gain on bargain purchase. The gain is made by the parent paying less than the net fair value of the acquirer's share of the identifiable assets, liabilities and contingent liabilities of the subsidiary. The NCI receives a share of the fair value of the subsidiary, and has no involvement with the gain on bargain purchase.

To illustrate, assume a subsidiary has the following statement of financial position:

Equity	$80 000
Identifiable assets and liabilities	$80 000

Assume all identifiable assets and liabilities of the subsidiary are recorded at amounts equal to fair value. If a parent acquires 80% of the shares of the subsidiary for $63 000, then the acquisition analysis, assuming the use of the partial goodwill method, is:

Net fair value of subsidiary	= $80 000
(a) Consideration transferred	= $63 000
(b) Non-controlling interest in subsidiary	= 20% × $80 000
	= $16 000
Aggregate of (a) and (b)	= $79 000
Gain on bargain purchase	$80 000 − $79 000
	= $1000

Assuming all fair values have been measured accurately, the consolidation worksheet entries at acquisition date are:

Business combination valuation entry

No entry required in this simple example.

Elimination of investment in subsidiary

Equity	Dr	64 000	
Gain on Bargain Purchase	Cr		1 000
Shares in Subsidiary	Cr		63 000

Non-controlling interest (step 1)

Equity	Dr	16 000	
NCI (20% × $80 000)	Cr		16 000

Note that the NCI does not receive any share of the gain on bargain purchase.

An example of the process of calculating NCI when intragroup transactions exist is given in illustrative example 23.3.

ILLUSTRATIVE EXAMPLE 23.3 NCI and intragroup transactions

Bat Ltd owns 80% of the issued shares of Snake Ltd. In the year ending 30 June 2014, the following transactions occurred:

(a) In July 2013, Bat Ltd sold $2000 worth of inventory that had been sold to it by Snake Ltd in May 2013 at a profit to Snake Ltd of $500.
(b) In February 2014, Bat Ltd sold $10 000 worth of inventory to Snake Ltd, recording a profit before tax of $2000. At 30 June 2014, 20% of this inventory remained unsold by Snake Ltd.
(c) In March 2014, Snake Ltd sold $12 000 worth of inventory to Bat Ltd at a mark-up of 20%. At 30 June 2014, $1200 of this inventory remained unsold by Bat Ltd.
(d) At 30 June 2014, Bat Ltd recorded depreciation of $10 000 in relation to plant sold to it by Snake Ltd on 1 July 2011. Bat Ltd uses a 10% p.a. straight-line depreciation method for plant. At date of sale to Bat Ltd, this plant had a carrying amount of $90 000 in the accounts of Snake Ltd.

Required

Given a tax rate of 30%, prepare the consolidation worksheet entries for these transactions as at 30 June 2014.

Solution

(a) *Sale of inventory in previous period: Snake Ltd to Bat Ltd*
The entry in the adjustment columns of the worksheet is:

Retained Earnings (1/7/13)	Dr	350	
Income Tax Expense	Dr	150	
Cost of Sales	Cr		500

Since the inventory was originally sold by the subsidiary to the parent, the entry in the NCI columns of the worksheet is:

NCI Share of Profit/(Loss)	Dr	70	
Retained Earnings (1/7/13)	Cr		70
(20% × $350)			

(b) *Sale of inventory in current period: Bat Ltd to Snake Ltd*

Sales	Dr	10 000	
Cost of Sales	Cr		9 600
Inventory	Cr		400
Deferred Tax Asset	Dr	120	
Income Tax Expense	Cr		120

Because the sale was from parent to subsidiary, there is no NCI adjustment required.

(c) *Sale of inventory in current period: Snake Ltd to Bat Ltd*
The entries in the adjustment columns of the worksheet are:

Sales	Dr	12 000	
Cost of Sales	Cr		11 800
Inventory	Cr		200
Deferred Tax Asset	Dr	60	
Income Tax Expense	Cr		60

Because the sale was from subsidiary to parent, the following entry is required in the NCI columns of the worksheet:

NCI	Dr	28	
NCI Share of Profit/(Loss)	Cr		28
(20% × $140)			