

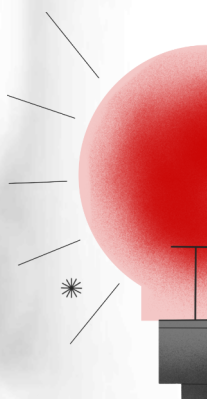


# How to calculate and explain the impairment of goodwill with NCI measured both ways!

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by Tom Clendon

This article explains, in simple terms, *the general principles of impairment*, how *the measurement of the non-controlling interest (NCI) impacts on the way that goodwill is accounted*, and finally how *the annual impairment review of goodwill* actually works!



# 1) The general principles of impairment

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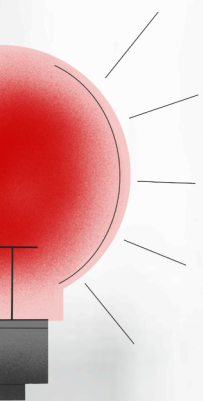
An impairment review calculation looks like this.

	\$
Carrying value	XX
Recoverable amount	XX
Impairment loss	<u>XX</u>

The carrying value, or net book value, is the amount that the asset is recorded at in the financial statements before the impairment review.

The recoverable amount is an estimate of how much the entity can recover from the asset. This will be the higher of what the asset could be sold for (fair value less costs to sell) and the present value of net future cash flows that the asset would generate if it were kept (the value in use).

An impairment loss arises where the carrying value exceeds the recoverable amount. Impairment losses must be recognised and the asset written down to its recoverable amount. If the recoverable amount exceeds the carrying value, then there is no impairment loss and no accounting entry.



# Example: Singapore (Impairment review)

Singapore has an asset with a carrying value of \$800m. The asset has not been revalued. The asset is subject to an impairment review. The fair value less costs to sell is \$600m and the estimate of the present value of the future cash flows to be generated by the asset if it were kept is \$750m.

**Required:** Calculate the impairment loss and explain the accounting treatment.

## *Solution to calculation of impairment loss*

	\$m
Carrying value	800
Recoverable amount	750
Impairment loss	<u>50</u>



## *Solution to explaining the accounting treatment*

An asset is impaired when its carrying value (in this case \$800m) exceeds the recoverable amount. The recoverable amount is the higher of the fair value less costs to sell and the value in use. In this case, the value in use of \$750m is greater than the fair value less costs to sell of only \$600m. To minimise losses, in this case the asset will be kept, and the recoverable amount is therefore \$750m. This means the impairment loss is \$50m.

As this asset has never been revalued, the loss is charged as an expense in PL. Impairment losses on assets that have been revalued are first charged to equity until the reserve relating to the revaluation gains of that asset is exhausted, and thereafter the impairment loss is charged as an PL expense.

The journal entry to record the impairment loss is as follows.

		\$m	\$m
Dr	PL expense	50	
Cr	Asset		50



The impairment loss must be recorded so that the asset is written down to the recoverable amount. There is no accounting policy or choice about this. In the event that the recoverable amount had exceeded the carrying amount then there would be no impairment loss to recognise, and no accounting entry would arise.

Impairment losses are non-cash expenses, like depreciation, so in the cash flow statement they will be added back when reconciling operating profit to cash generated from operating activities.

Assets are generally subject to an impairment review only if there are indicators of impairment. Examples of circumstances that would trigger an impairment review include external sources such as a decline in market value, changes in technology and internal factors including physical damage to the asset or a worse economic performance than expected.

Goodwill however is subject to an annual impairment review. Goodwill as an individual asset does not generate a cash flow (so has no value in use) and can neither be sold (so has no fair value less cost to sell). For these reasons when goodwill is subject to an impairment review it is tested alongside the net assets that it relates to. This will in practice mean the net assets of the subsidiary. The net assets and the related goodwill are known as the cash generating unit (CGU).

*But I am getting ahead of myself. Next up is a recap on how to calculate goodwill – with an emphasis on the measurement of the NCI.*

## 2) Measurement of NCI in the calculation of goodwill

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On the acquisition of a subsidiary, goodwill arises on consolidation. The intangible asset of goodwill arises in the group accounts when on the acquisition the aggregate of the fair value of the consideration given by the parent for its investment in the subsidiary (the controlling interest) and the non-controlling interest (NCI) exceeds the fair value of the identifiable net assets acquired. Such goodwill is recognised as an intangible asset in the group accounts.

A goodwill calculation looks like this.

	\$
Parent's investment in the subsidiary	XX
NCI	XX
Less FV of the Sub's net assets	(XX)
Goodwill	<hr/> XX <hr/>

There are many potential complications around this calculation e.g. how to determine the fair value of the net assets of the subsidiary at the date of acquisition. However, this article is just focussing on the accounting policy decision on how to measure of the NCI at the date of acquisition.

NCI can be measured as a proportion of net assets or at fair value. This decision impacts on both the initial measurement of goodwill and on the subsequent accounting treatment of any impairment losses.

## NCI is measured at fair value

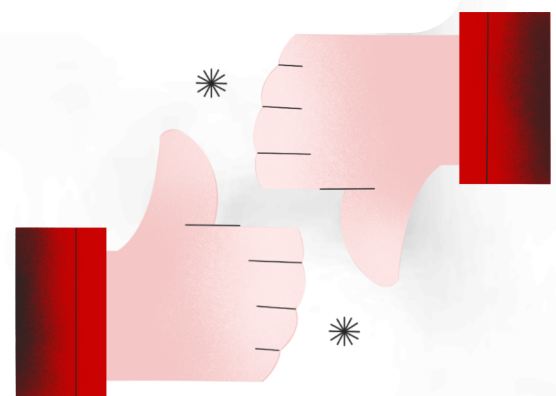
This method can be referred to as full goodwill method. It results in goodwill that is attributable to both the parent and the NCI.

Accordingly, when the goodwill is impaired, the NCI is charged with their share of the impairment loss in the normal proportions to which the parent and the NCI share the subsidiary's post acquisition profits and losses.

When NCI at acquisition is measured at fair value, the NCI is measured based on the subsidiary's share price.

The calculation of NCI at fair value is as follows:

*Share price of the subsidiary x number of subsidiary shares x NCI% = FV of the NCI.*



# NCI is measured as a proportion of net assets

This method can be referred to as the proportionate method. It results in goodwill that is only attributable to the parent company.

Accordingly, when the goodwill is impaired none of the impairment loss will be charged against the NCI.

When NCI at acquisition is measured as a proportion of net assets, it is based on the fair value of the net assets of the subsidiary.

The calculation of NCI as a proportion of net assets is as follows

*NCI% x FV of the subsidiary's net assets at acquisition = NCI as a proportion of net assets.*

## Example: Borough (goodwill calculation)

Borough acquired 80% of High's 1,000,000 equity shares paying consideration of \$800,000. The fair value of the net assets of High at the date of acquisition was \$500,000 and its share price was \$0.80.

**Required:** Calculate the goodwill arising in the group accounts of Borough on the acquisition of High on the basis that:

- a) NCI is measured at fair value
- b) NCI is measured as a proportion of net assets

## Solution Borough (goodwill calculation)

### a) Calculation of goodwill with NCI measured at fair value

		\$000
Parent's investment in the subsidiary		800
NCI – at FV (based on share price)	$(\$0.8 \times 1,000,000 \times 20\%)$	160
Less FV of the Sub's net assets		(500)
Goodwill (full)		<u>460</u>

### b) Calculation of goodwill with NCI measured as a proportion of net assets

		\$000
Parent's investment in the subsidiary		800
NCI (proportion of net assets)	$(20\% \times 500)$	100
Less FV of the Sub's net assets		(500)
Goodwill (attributable to parent)		<u>400</u>

## Negative goodwill / bargain purchase / discount arising

Goodwill is normally positive and represents a premium paid by the group over and above the fair value of the net assets of the subsidiary.

However, it is possible that goodwill can be negative. This occurs when the parent has made a bargain purchase and acquired control of the net assets of the subsidiary at a discount. As this is unusual it is necessary to double check that the fair value net assets of the subsidiary have been correctly measured.

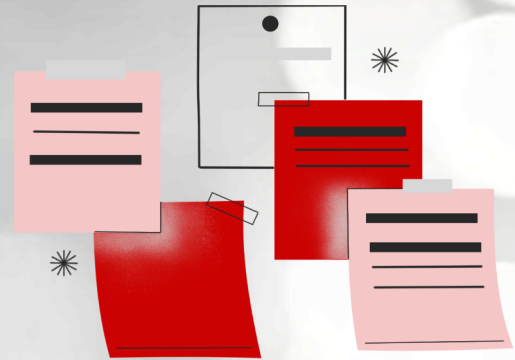
The accounting treatment for negative goodwill is to immediately recognise it as a gain in the group PL, with such a gain only increasing the profits attributable to the parent.

### 3) Impairment review of goodwill

The positive goodwill arising on the acquisition of a subsidiary is subject to an annual impairment review as part of a cash generating unit with any impairment loss first allocated to the goodwill.

An impairment review of goodwill looks like this.

	\$
Net assets	XX
Goodwill	XX
Carrying value CGU	XX
Recoverable amount	XX
Impairment loss	XX



The calculation of the impairment loss is relatively straight forward when the policy is to measure NCI at acquisition at FV as it means that goodwill is in full. The resulting impairment loss is first allocated against goodwill with the loss being charged to PL and with the NCI bearing their share.

However, there is a double complication when the policy is to measure NCI at acquisition as a proportion of net assets because goodwill is only attributable to the parent. In these circumstances in the impairment review calculation, it is necessary to first notionally gross up the goodwill, to add on notional NCI. This will then ensure consistency in the impairment review calculation as the net assets and recoverable amount are given as “full figures”. The second complication is that the initial resulting impairment loss is in effect contaminated with the notional NCI, but the actual goodwill is only attributable to the parent. Accordingly the initial resulting loss is not the actual impairment loss recognised in the group accounts.

*This is all best understood through a worked example.*

# Example: Borough (impairment review calculation)

Borough controls High having acquired 80% of its equity shares. When the first impairment review of the goodwill is conducted the net assets of High are \$440,000 and the recoverable amount has been assessed at \$490,000.

**Required:** Calculate the impairment loss on the goodwill in Borough's group accounts on the basis that

- NCI of High is measured at fair value and goodwill is \$460,000
- NCI of High is measured as a proportion of net assets and goodwill is \$400,000

## *Solution Borough (impairment review calculation)*

### a) calculation of the impairment loss on goodwill - with NCI measured at fair value



	\$000
Net assets	440
Goodwill	460
Carrying value CGU	<u>900</u>
Recoverable amount	490
Impairment loss	<u>410</u>

The impairment loss of \$410,000 is charged as an additional expense in the group profit loss and will reduce the intangible asset of goodwill. As NCI has been measured at fair value the NCI will be charged with their share of the loss ( $20\% \times 410,000 = \$82,000$ ).

# Exam focus: Group S of FP impairment loss on goodwill - with NCI measured at fair value



Q1 of the SBR exam uses prepopulated spread sheets. Given extracts from the group statement of financial position with group retained earnings of \$600,000 and NCI of \$200,000 then the adjustment of an impairment loss on goodwill of \$410,000 that has to be split with the NCI, would be presented as follows.

	\$000	\$000	\$000
Group S of FP extract	Per the Q	Adjustments	Corrected answer
		Impairment loss	
<b>Assets</b>			
Goodwill	460	-410	50
<b>Equity</b>			
Retained Earnings	600	-328	278
NCI	200	-82	118

Notice the net adjustments to both the top and bottom of the group statement of financial position are the same. The balance sheet will still balance after the adjustments.

Adjustments made to group statement of financial positions lend themselves to being expressed in journals and this may help some students understand the adjustments. The journal entry to record the impairment loss in the statement of financial position is as follows.

	\$000	\$000
Dr Retained Earnings	328	
Dr NCI	82	
Cr Goodwill Asset		410

# Exam focus: Group PL impairment loss on goodwill - with NCI measured at fair value



Q1 of the SBR exam uses prepopulated spread sheets. Given the extracts from the group statement of profit or loss with operating expenses of \$900,000, and profit for the year of \$760,000 (of which \$650,000 is attributable to the parent and \$110,000 to the NCI) then the adjustment of an impairment loss on goodwill of \$410,000 that has to be split with the NCI would be presented as follows.

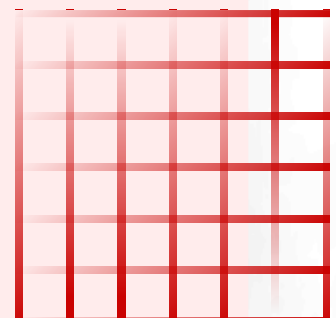
	\$000	\$000	\$000
PL extract	Per the Q	Adjustments	Corrected answer
		Impairment loss	
Operating expenses	-900	-410	-1,290
Profit for the year	760	-410	350
Profits attributable to the parent	650	-328	322
Profits attributable to the NCI	110	-82	28

Because the PL only includes income and expenses there is little point in trying to think too hard about double entries – as the impact on the asset of the impairment loss is reflected in the statement of financial position.

## b) calculation of the impairment loss on goodwill - with NCI measured as a proportion of net assets

As the goodwill of \$400,000 is only attributable to the parent, for the purposes of the impairment review it is grossed up.

	\$000
Net assets	440
Goodwill (400 x 100/80)	500
Carrying value CGU	940
Recoverable amount	490
Impairment loss	450



## Exam focus: Group PL impairment loss on goodwill - with NCI measured at fair value (cont.)



The impairment loss of \$450,000 is not the actual loss though as it relates to the grossed-up goodwill of \$500,000 that includes the notional NCI.

As the initial impairment loss of \$450,000 is less than the grossed-up goodwill of \$500,000, all of the impairment relates to the goodwill and none to other assets in the cash generating unit.

The actual impairment loss to be recorded against the actual goodwill is therefore only  $80\% \times 450,000 = \$360,000$ .

The impairment loss of \$360,000 is charged as an additional expense in the group profit loss and will reduce the intangible asset of goodwill.

The loss will not impact the profits attributable to the NCI.



# Exam focus: Group S of FP impairment loss on goodwill - with NCI measured as a proportion of net assets



Given the extracts from the group statement of financial position with group retained earnings of \$600,000 and NCI of \$200,000 the adjustment of an impairment loss on goodwill of \$360,000 that is wholly attributable to the parent would be presented as follows.

	\$000	\$000	\$000
Group S of FP extract	Per the Q	Adjustments Impairment loss	Corrected answer
<b>Assets</b>			
Goodwill	400	-360	40
<b>Equity</b>			
Retained earnings	600	-360	240
NCI	200		200

Notice the net adjustments to both the top and bottom of the group statement of financial position are the same. The balance sheet will still balance after the adjustments.

If it helps your understanding, the journal entry to record the impairment loss in the statement of financial position is as follows.

	\$000	\$000
Dr Retained Earnings	360	
Cr Goodwill Asset		360



# Exam focus: Group PL impairment loss on goodwill - with NCI measured as a proportion of net asset


Given the extracts from the group statement of profit or loss with operating expenses of \$900,000, and profit for the year of \$760,000 of which \$650,000 is attributable to the parent and \$110,000 to the NCI then the adjustment of an impairment loss on goodwill of \$360,000 that is wholly attributable to the parent would be presented as follows.

	\$000	\$000	\$000
PL extract	Per the Q	Adjustments	Corrected answer
		Impairment loss	
Operating expenses	-900	-360	-1,260
Profit for the year	760	-360	400
Profits attributable to the parent	650	-360	290
Profits attributable to the NCI	110		110

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