Impairment – some thoughts around the current practice

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Impairment test – treatment of ARO

► When net present values calculations are performed in relation to acquisitions, future cash flows related to asset retirement obligations are normally included

► Our observation is that many companies does not make any adjustments to this calculation when it is done for impairment purposes

► IAS 36.43 To avoid double-counting, estimates of future cash flows do not include:

  – cash outflows that relate to obligations that have been recognised as liabilities (for example, payables, pensions or provisions)

► Does it make any difference?

| Including ARO in CF vs NBV net of ARO | = | Excluding ARO in CF vs NBV excluding ARO | ? |

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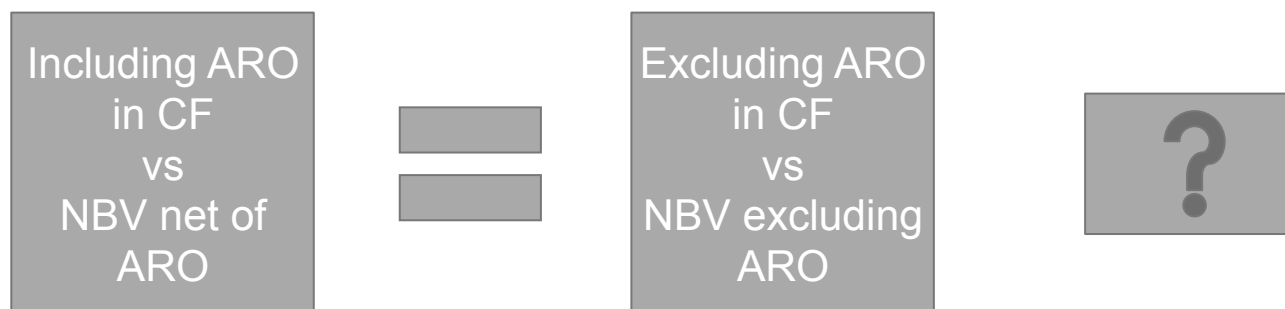
Impairment test – treatment of ARO

► Different discount rates…

► Example

  – NBV of asset = 2 000

  – ARO CF in 20 years = 903 – discount rate 3%= 500 in ARO obligation

  – NBV of asset net of ARO = 1 500

  – Discount rate for impairment purposes = 10%

  – NPV excluding ARO CF = 1 650

  – NPV of ARO CF = $903 / 1,1^{20}$ = 134

  – NPV including ARO CF = 1 516

► Does it make any difference?

| Including ARO in CF = 1 516 vs NBV net of ARO = 1 500 | ≠ | Excluding ARO in CF = 1 650 vs NBV excluding ARO = 2 000 |

Discount rate should generally depend on level of ARO

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Impairment and deferred tax:
- Value in use (VIU)

IAS 36

► Carrying value compared to pre-tax NPV

Book value of fixed asset	? <	Pre-tax NPV

In practice

1. Iterative method

Book value of fixed asset	? <	Post-tax NPV with adjusted tax balances

2. Undiscounted deferred tax-method

Book value of fixed asset net of deferred tax	? <	Post-tax NPV with actual tax balances
Undiscounted deferred tax		

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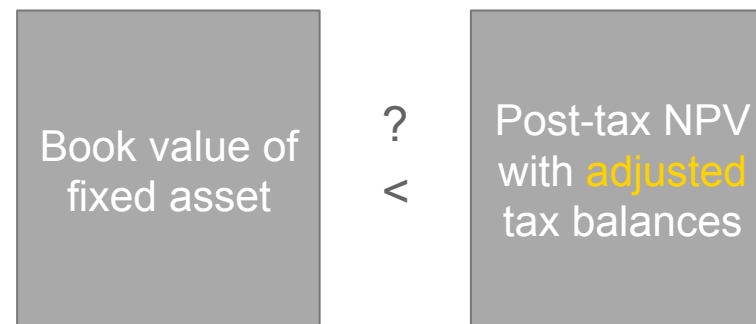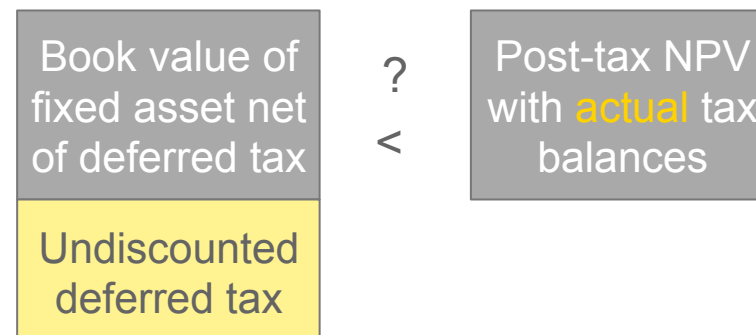
Iterative method – what is it really all about?

Iterativ method

EBITDA

- Tax (EBITDA - BV) x 78%

= Cash flow

-

Undiscounted deferred tax method

EBITDA

- Tax (EBITDA - TB) x 78%

= Cash flow

=

(BV - TB) x 78%

NPV of deferred tax

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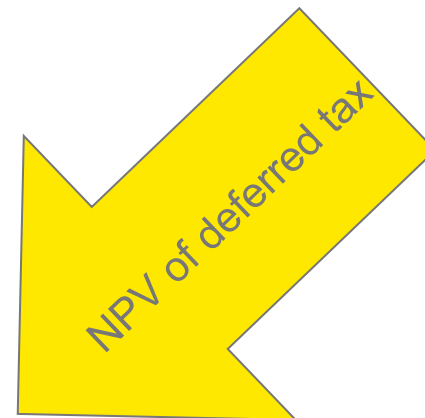
Impairment and deferred tax – value in use example

▶ Assume standard NPV calculation for oilfield with

- Annual EBITDA $50 for six years

- Carrying amount $120

- Tax basis $100

- Discount rate 10%

	Sum	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EBITDA	300.0	50.0	50.0	50.0	50.0	50.0	50.0
Tax depreciation	-100.0	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7
EBIT for tax purposes	200.0	33.3	33.3	33.3	33.3	33.3	33.3
Pre-tax cash flow	300.0	50.0	50.0	50.0	50.0	50.0	50.0
Tax	-156.0	-26.0	-26.0	-26.0	-26.0	-26.0	-26.0
Post-tax cash flow	144.0	24.0	24.0	24.0	24.0	24.0	24.0
NPV (*post*-tax)	104.5						

▶ NPV ($104.5) is less than carrying amount ($120)

▶ However, deferred tax needs to be taken into account

- *Pre*-impairment deferred tax: ($120-$100) x 78% = $15.6

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Value in use – different methods are still being used in practice

► Iterative method is the recommended approach under IAS 36

  – Actual tax depreciation in the NPV calculation is replaced by notional tax deprecation as if tax basis were equal to NPV

  – The resulting NPV ($110.4) is compared against carrying amount ($120) – impairment of $9.6

	Sum	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EBITDA	300.0	50.0	50.0	50.0	50.0	50.0	50.0
Tax depreciation	-110.4	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4
EBIT for tax purposes	189.6	31.6	31.6	31.6	31.6	31.6	31.6
Pre-tax cash flow	300.0	50.0	50.0	50.0	50.0	50.0	50.0
Tax	-147.9	-24.6	-24.6	-24.6	-24.6	-24.6	-24.6
Post-tax cash flow	152.1	25.4	25.4	25.4	25.4	25.4	25.4

NPV iterative method (*post*-tax)	110.4

► Some still use «undiscounted deferred tax method»

  – Carrying amount = Book value of oilfield asset – Deferred tax = $120 - $15.6 = $104.4

	Iterative method	Undiscounted deferred tax method
Carrying amount	120.0	104.4
Recoverable amount	110.4	104.5
Impairment	9.6	-
Post-impairment book value of oilfield asset	110.4	120.0

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The undiscounted deferred tax method can give strange results

▶ «Undiscounted deferred tax method» gives lower impairment as long as the oilfield is in a deferred tax liability position *post*-impairment

▶ However, suppose annual EBITDA were to fall to $21 (from $50)

   – Iterative method NPV $46.4

   – Undiscounted deferred tax method NPV $76.7

▶ The undiscounted deferred tax method NPV ($76.7) must be allocated between the oilfield asset and deferred tax

   – NPV < Tax basis   ➡   Deferred tax asset

   – Deferred tax asset must be 78% of *post*-impairment temporary difference

   – However, even if all NPV ($76.7) is allocated to deferred tax asset, it is less than 78% of temporary difference (With *post*-impairment book value of $0, deferred tax asset is ($0-$100) x 78% = $78)

▶ *Post*-impairment book value is zero even with positive pre-tax cash flows

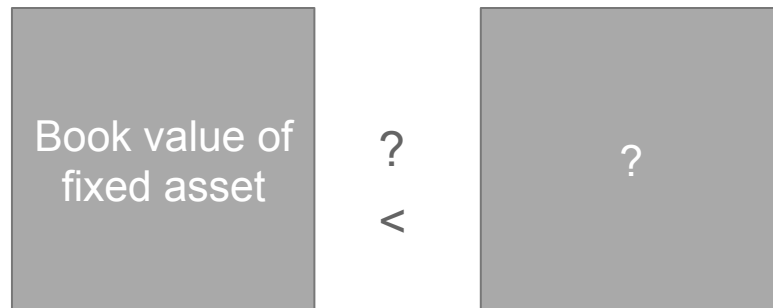|	Iterative method	Undiscounted deferred tax method
Carrying amount	120.0	104.4
Recoverable amount	46.4	76.7
Impairment	73.6	120.0
Post-impairment book value of oilfield asset	46.4	-

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Impairment and deferred tax:
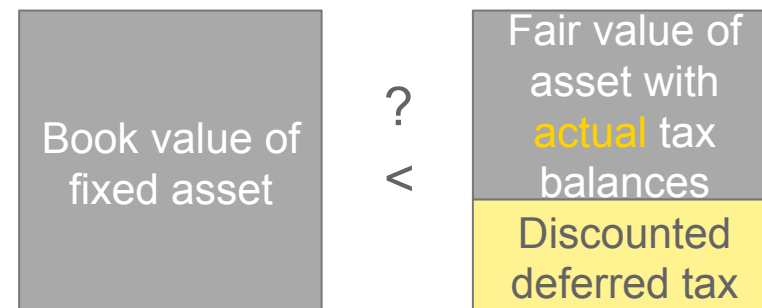# - Fair value less cost of disposal (FVLCD)

IAS 36

► Less clear what the carrying amount should be compared against
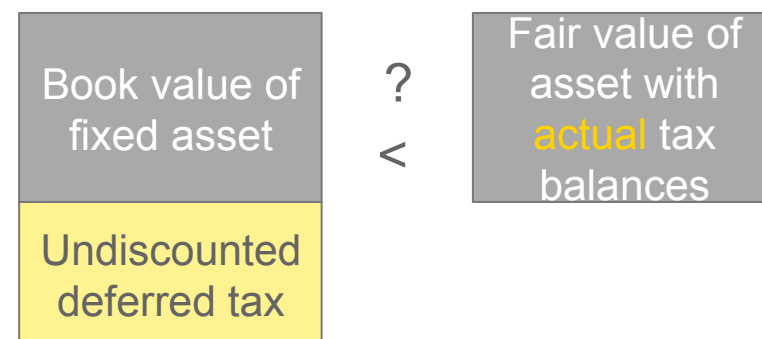
Book value of fixed asset	? <	?

► NCS transactions are *post*-tax

  – Combination of oilfield asset and deferred tax

► Can deferred tax be «carved out» from an oilfield asset fair value?

  – Equivalent with the the iterative method discussed under VIU

In practice

1. Iterative method

Book value of fixed asset	? <	Fair value of asset with actual tax balances / Discounted deferred tax

2. Undiscounted deferred tax-method

Book value of fixed asset / Undiscounted deferred tax	? <	Fair value of asset with actual tax balances

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FVLCD and deferred tax – ongoing discussions on how to interpret IAS 36

► While IAS 36 explicitly states that *pre*-tax cash flows should be used for value in use calculations, it is less clear about fair value less cost of disposal

► We therefore see that the «undiscounted deferred tax method» is commonly used in practice to estimate FVLCD

 – The same problems remain as under VIU, as the recoverable amount of the oilfield asset could be zero even if the oilfield generates positive cash flows

► More specifically, the discussion relates to whether IAS 36.29 implies that deferred tax liability should be included as a liability of the CGU in accordance with IAS 36.78

 – Does IAS 36.29 also have implications for VIU?

 – Unclear how to interpret this if the oilfield has a deferred tax asset, as this is not covered by IAS 36.29

► On the other hand, the discussions in IAS 36.BCZ81-83 do not indicate that the principles for treatment of tax were intended to be different between VIU and FVLCD

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Technical goodwill – implications of CGU allocation on impairment

► Technical goodwill arises as offsetting entry to deferred tax in business combinations

Accounting for transaction (tax basis of 25)			
Fixed asset	62.1	28.9	Deferred tax
Goodwill	28.9	62.1	Bank

► How should technical goodwill be allocated?

— If all goodwill in a transaction is technical goodwill: Allocate to field CGU (?)

— If a transaction includes other goodwill, e.g. synergies, in addition to technical goodwill, the treatment may be different

— The allocation to CGUs impacts the timing of future impairment

► If technical goodwill is allocated to field CGU: «UoP impairment»

— Oilfield has limited lifetime, so goodwill must be impaired sooner or later

— Impairment amount is generally increasing in time due to discounting effect

— Exact amounts depend on whether deferred tax is discounted or not

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Goodwill opening balance	28.9	20.6	19.1	16.4	12.4	7.0
Impairment	-8.3	-1.5	-2.7	-4.0	-5.4	-7.0
Goodwill closing balance	20.6	19.1	16.4	12.4	7.0	-

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Technical goodwill – implications of CGU allocation on impairment

► If there are other goodwill items in the transaction, the allocation might be done separately for technical and «ordinary» goodwill

Accounting for transaction (tax basis of 25)			
Fixed asset	62.1	28.9	Deferred tax
Goodwill (technical)	28.9	72.1	Bank
Goodwill (synergies)	10.0		

► How should technical goodwill be allocated?

  – Synergies should not be allocated to the oilfield CGU – allocate to a higher level

  – Can technical goodwill and other goodwill acquired in the same business combination be allocated to different CGU levels?

  – IAS 36.80 provides no specific rules for technical goodwill

► Case: Prices drop after technical goodwill has been allocated to higher CGU levels

  – No impairment of technical goodwill, as other CGU's still defend the value

  – No impairment of the asset, as «theoretical» deferred tax has been recognized on a post tax amount

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Technical goodwill – implications of CGU allocation on impairment

► Impairment test if technical goodwill is allocated to higher level CGU

  – Suppose the oil price falls after year 1– this may not lead to impairment since the oilfield CGU does not necessarily need to defend the carrying value of technical goodwill

Oilfield CGU amounts:	Transaction date assumptions at end of y1 Value of CGU if goodwill is allocated to		Impairment case, e.g. oil price falls Value of CGU if goodwill is allocated to	
	Oilfield	Higher level	Oilfield	Higher level
Carrying value (62.1 – 10.3 + 28.9)	80.6	51.7	80.6	51.7
Recoverable amount	72.3	72.3	55.6	55.6
Impairment	8.3	-	25.0	-

► Amendments to IFRS 11 (accounting for acquisitions in Joint Arrangements) will require more transactions to be treated as business combinations

  – The issues regarding technical goodwill will become more relevant

  – Effective date 1 January 2016

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General issues

► Oil and gas price assumptions

    — Forward prices often used for the first future years

    — Long-term price assumptions often not extrapolated from forward curve – e.g. discontinuity after the forward period

► FX rate assumptions

    — Often deviate from forward rates

► Point estimates

    — P50

    — It is not common to estimate value as a weighted average of scenarios

► Real options

    — No quantitative estimation of value of flexibility even in fair value calculations

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