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Impairment Testing: IAS 36

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Agenda

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Introduction

Objectives

1. To set out the requirements of impairment testing under IAS 36

2. To understand how the requirements of IAS 36 apply in practice

3. To answer any questions you may have

Introduction

Jurisdictions and entities around the world continue to be affected by the slower than expected economic recovery and the difficult markets in general, as well as having to cope with the additional challenges posed by the sovereign debt issues in Europe, including government austerity programmes

We therefore expect that assessments related to future expectations will continue to challenge management, those charged with governance and auditors. Significant judgements and accounting estimates will be critical, including:

- Impairments (financial and non-financial);
- Valuations;
- Liquidity and the going concern assumption; and
- The quality and adequacy of the related disclosures.

IAS 36 Impairment of Assets sets out the procedures that entities must apply to ensure that their assets are carried at no more than the amounts expected to be recovered through the use or sale of the assets

Although the main principles of IAS 36 are very clear, the practical application of IAS 36 has always been challenging and problems have been brought into focus during the recent economic uncertainty

Background to impairment testing

Scope of IAS 36

IAS 36 paragraph 2 states that:

- This Standard shall be applied in accounting for the impairment of all assets, other than:
  - a) inventories (see IAS 2 Inventories)
  - b) assets arising from construction contracts (see IAS 11 Construction Contracts)
  - c) deferred tax assets (see IAS 12 Income Taxes)
  - d) assets arising from employee benefits (see IAS 19 Employee Benefits)
  - e) financial assets that are within the scope of IAS 39 Financial Instruments: Recognition and Measurement
  - f) investment property that is measured at fair value (see IAS 40 Investment Property)
  - g) biological assets related to agricultural activity that are measured at fair value less estimated point-of-sale costs (see IAS 41 agriculture)
  - h) deferred acquisition costs, and intangible assets, arising from an insurer's contractual rights under insurance contracts within the scope of IFRS 4 insurance Contracts (actuarial teams can provide advice in this area)
  - i) non-current assets (or disposal groups) classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations

Definitions

Cash Generating Unit (CGU)	"The smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets"
Carrying amount (CA)	"The amount at which an asset is recognised after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon"
Recoverable amount (RA)	"The recoverable amount of an asset or cash-generating unit is the higher of its fair value less costs to sell and its value in use"
Fair value less costs to sell (FVLCTS)	"The amount obtainable from the sale of an asset or cash-generating unit in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal"
Value in use (VIU)	"The present value of the future cash flows expected to be derived from an asset or cash-generating unit"

Determination of CGUs

Important that CGUs reflect how Management sees the business (e.g. on a business line basis)

Each reporting segment typically has different value drivers and different risk profiles

Each CGU should be valued using different assumptions (in terms of growth rates, margins, long term growth rates and discount rates)

When impairment testing is performed

At each reporting date when there is an indication of possible impairment (i.e. a triggering event)

- **Obsolescence** — the obsolescence or physical damage of an asset
- **Acquisition** — cash flows for acquiring, operating or maintaining asset significantly above budgeted
- **Market value** — a significant and unexpected decline in market value
- **Interest rates** — increase in market interest rates that will increase the discount rate used to determine VIU
- **Cash flows** — net cash flows or operating profits are lower than budgeted or result in net outflows / losses
- **Market capitalisation** — the CA of an entity's net assets exceeds market capitalisation
- **Adverse changes** — significant changes in expected use of asset that will have an adverse effect on an entity
- **Performance** — indications that the performance of an asset is or will be worse than expected

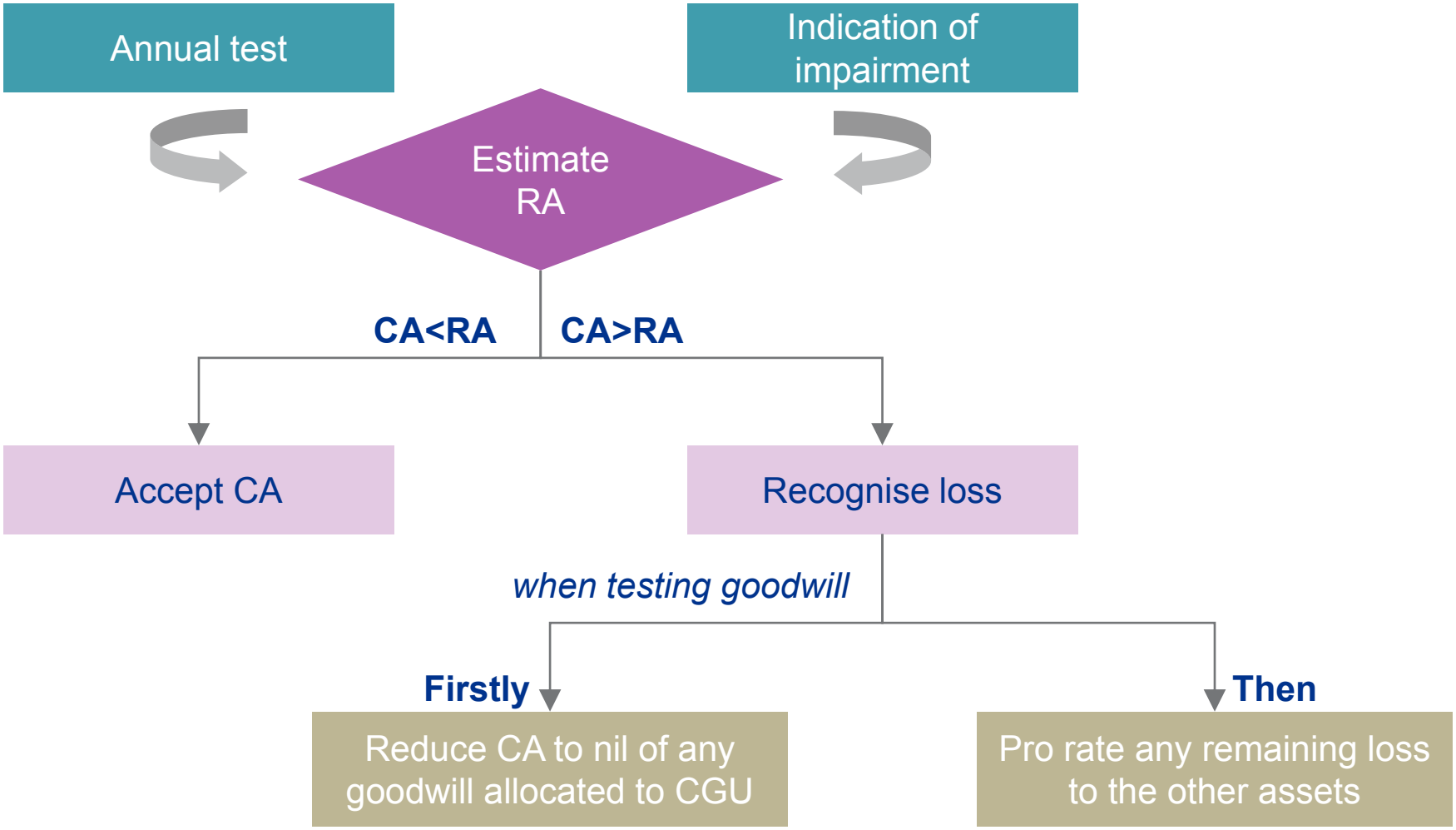
Annually for certain intangible assets (not necessarily at financial year end)

- **Useful life** — Assets with an indefinite useful life
- **Goodwill** — CGUs to which goodwill has been allocated
- **Available for use** — intangible assets not available for use

If performed at an interim period in the financial year, may need to retest at year end if indicators of impairment arise after the impairment testing date

Overview of impairment testing process

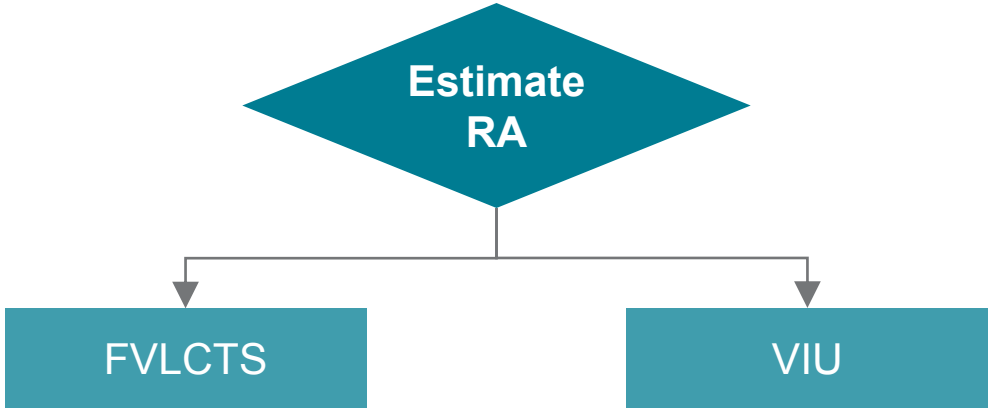
Impairment testing process



Recoverable amount

Measuring RA

IAS 36 paragraph 18: RA is the higher of FVLCTS and VIU of an asset or CGU



IAS 36 paragraph 19: Not always necessary to determine both an asset's FVLCTS and its VIU; if either of these are greater than CA then the asset is not impaired

IAS 36 paragraph 20: It may be possible to determine FVLCTS even if an asset is not traded in an active market. If no reliable estimate is obtainable the entity may use VIU as its RA expected to be derived from an asset or CGU

IAS 36 paragraph 21: For assets held for disposal, an asset's VIU will not materially exceed its FVLCTS, as VIU will mainly consist of the net disposal proceeds

Carry forward of RA

IAS 36 permits the most recent detailed calculation made in a preceding period of the RA of a CGU to be used in the impairment test for that unit (group of units) in the current period, provided that:

1. The assets and liabilities making up that CGU have not changed significantly since the most recent RA calculation

2. The most recent RA calculation resulted in an amount that exceeded the asset's CA by a substantial margin

3. Based on an analysis of events that have occurred and circumstances that have changed since the most recent RA calculation, the likelihood that a current RA determination would be less than the asset's CA is remote

FVLCTS

FVLCTS

IAS 36: “The amount obtainable from the sale of an asset or cash-generating unit in an arm’s length transaction between knowledgeable, willing parties, less the costs of disposal”

Hierarchy of fair value:

Paragraph 25: a binding sales agreement

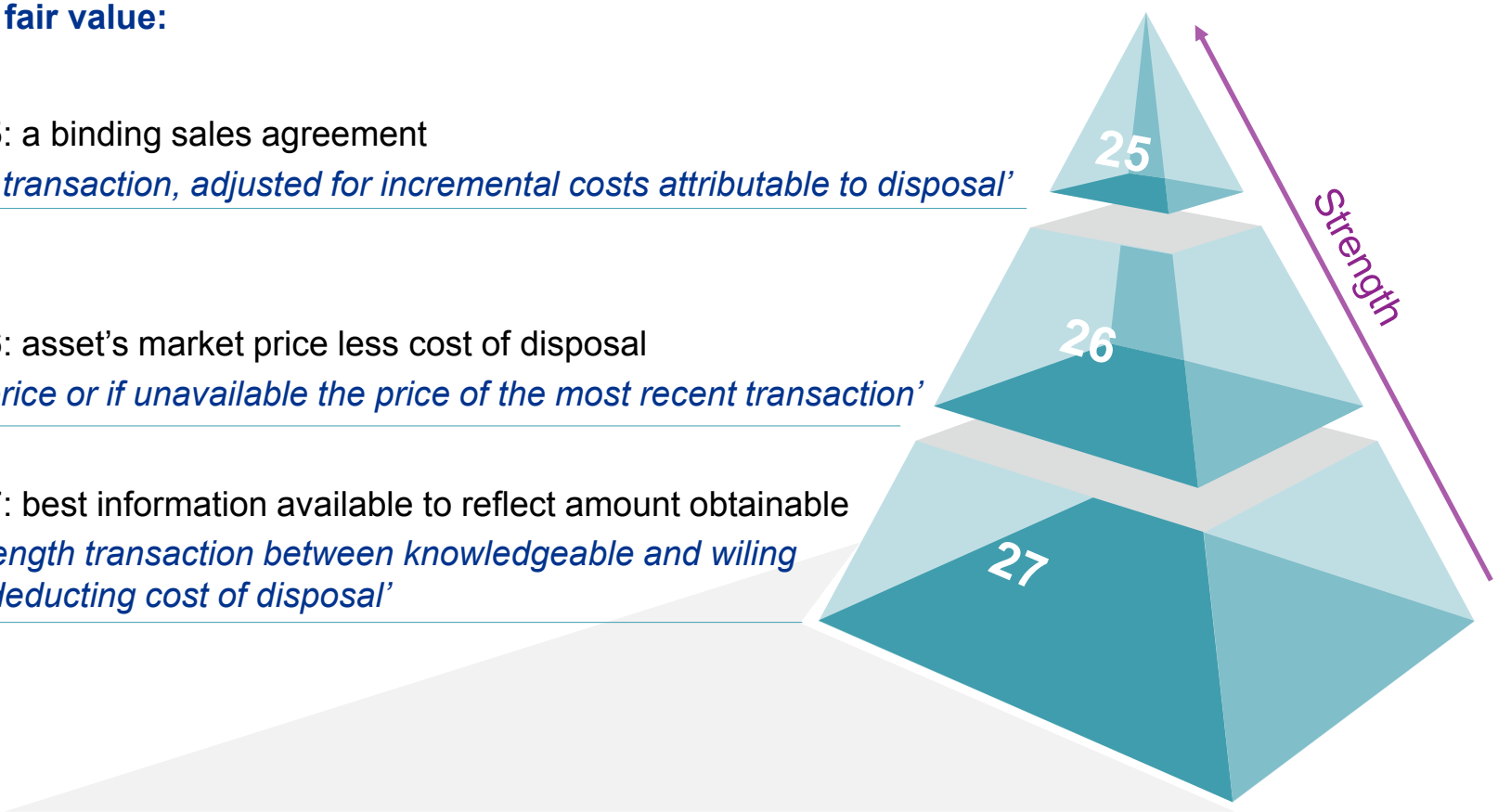
‘Arm’s length transaction, adjusted for incremental costs attributable to disposal’

Paragraph 26: asset’s market price less cost of disposal

‘Current bid price or if unavailable the price of the most recent transaction’

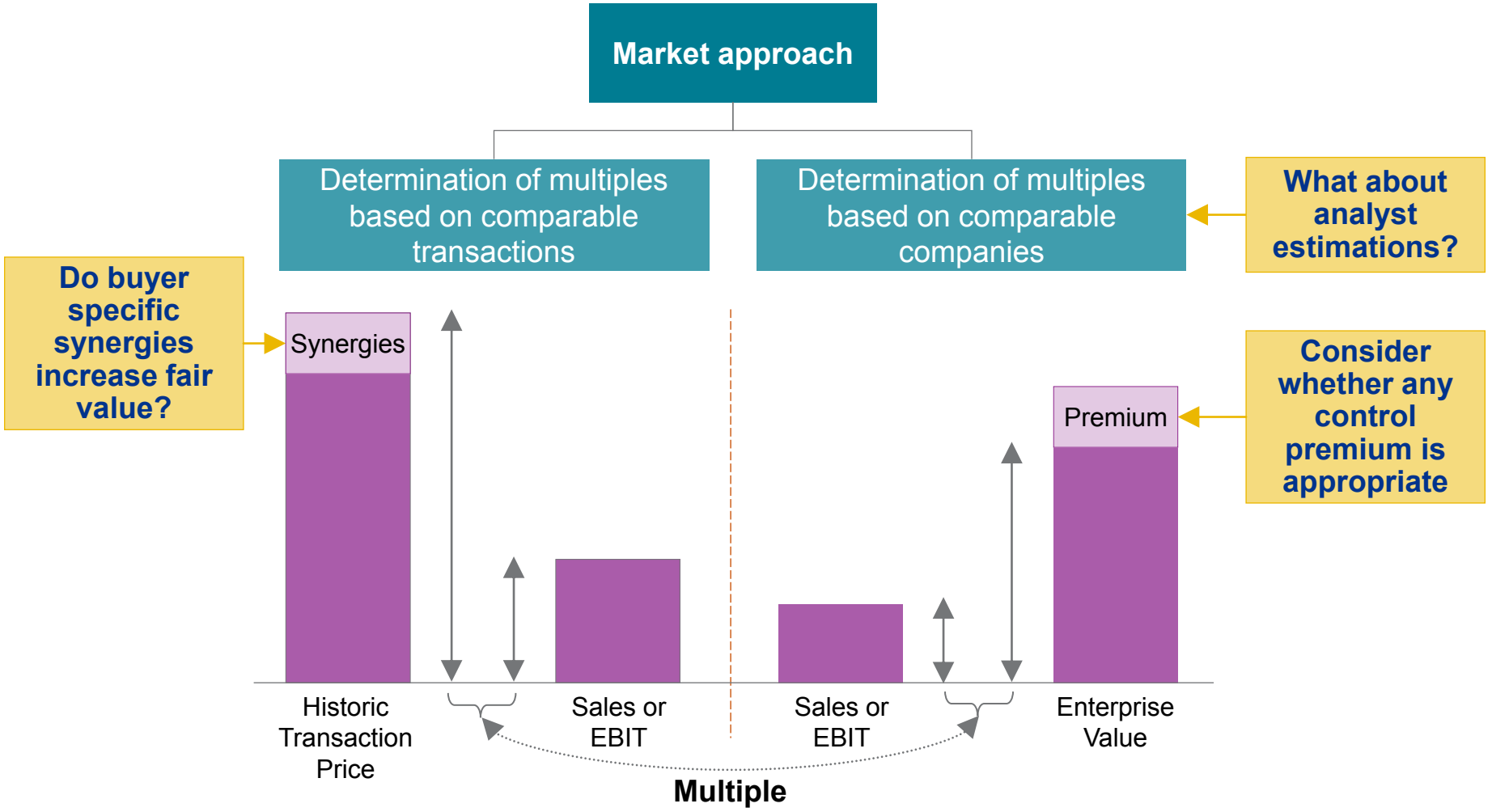
Paragraph 27: best information available to reflect amount obtainable

‘In an arm’s length transaction between knowledgeable and wiling parties after deducting cost of disposal’



FVLCTS: observable market prices vs fair value

However, observable market prices are often difficult to translate into fair value



FVLCTS: DCF approach

Entities may consider estimating FVLCTS using a DCF approach

Can only use DCF if:

- Is common valuation practice in the industry
- Cash flows are only those that a market participant would take into account when assessing fair value (both in regards to type and amount of cash flow)
- A market participant discount rate is applied

- The entity does not necessarily have to take account of the restrictions built into a VIU calculation (e.g. regarding what cash flows can be included)
- More weight must be given to market evidence rather than management's judgement
- Management must demonstrate it has correctly estimated the extent to which a market participant would take any given factor / assumption into account

Key issue is whether the resulting FVLCTS is a reliable estimate of the amount at which the asset could be sold to a third party. If it is not possible to obtain reliable evidence regarding the assumptions and techniques a market participant would use, it would be difficult to conclude that FVLCTS could be estimated with sufficient reliability

FVLCTS: costs to sell

IAS 36 paragraph 28

- ✓ Legal costs
- ✓ Stamp duty and similar transaction taxes
- ✓ Costs of removing the asset(s)
- ✓ Direct incremental costs to bring the asset(s) into condition for sale
- ✗ Termination benefits (IAS 19 Employee Benefits)
- ✗ Costs of reducing or reorganising a business following the disposal

VIU

Estimating VIU

Steps involved in estimating VIU

Estimating the future cash inflows and outflows to be derived from continuing use of the asset and from its ultimate disposal

Applying the appropriate discount rate to those future cash flows

IAS 36 paragraph 30 states that the following should be reflected in an asset's VIU

a) an estimate of the future cash flows the entity expects to derive from the asset

b) expectations about possible variations in the amount or timing of those future cash flows

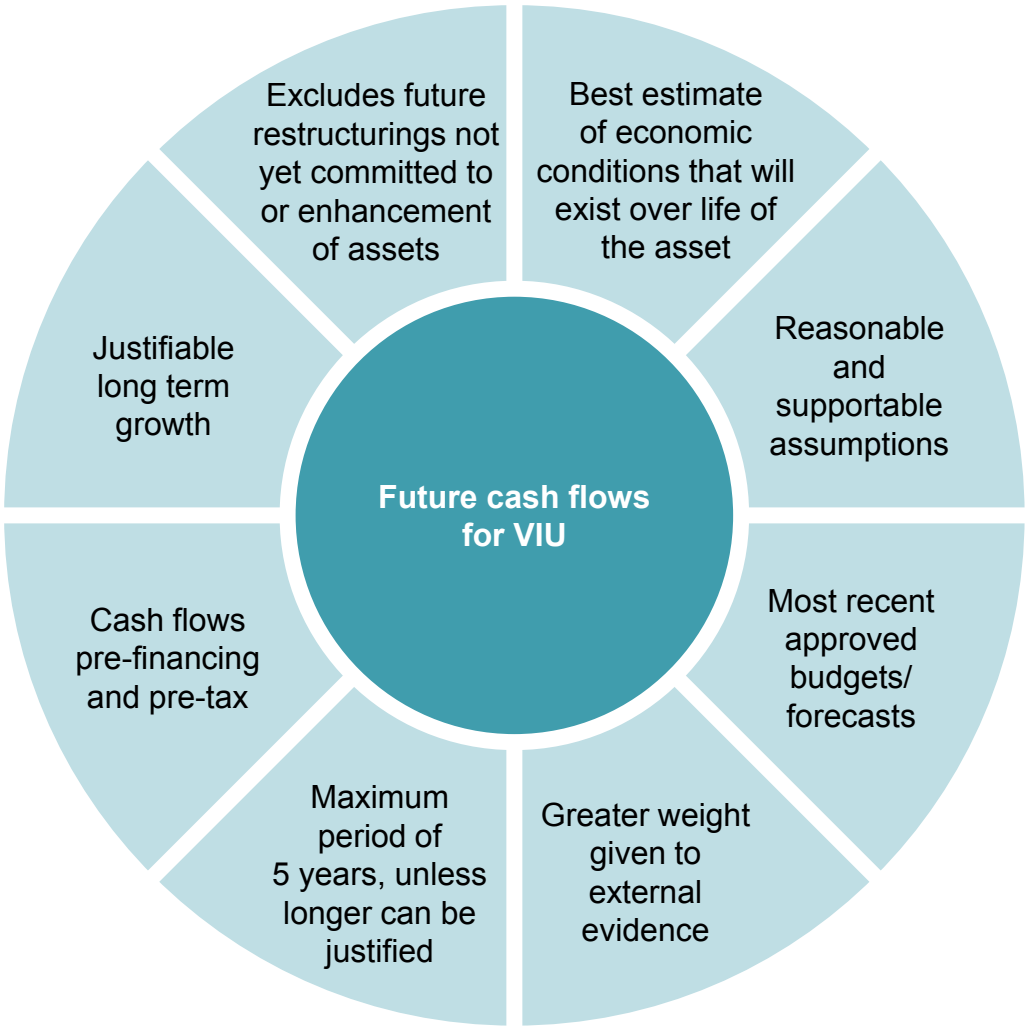
c) the time value of money, represented by the current market risk-free rate of interest

d) the price for bearing the uncertainty inherent in the asset

e) other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset

Can be reflected either as adjustments to the future cash flows or as adjustments to the discount rate (through an additional business specific risk premium, or "alpha factor")

Future cash flows



Key considerations

- Assumptions must be reasonable and supportable
- Cash flows must be for the continuing use of that asset in its current condition
- Cash flows relating to restructurings or enhancements that are not committed to should be excluded (e.g. future M&A activity, expanding product range or geographical coverage)
- Capex is included to the extent it maintains operating capacity – expenditure to enhance performance (and resulting improved cash flows) are excluded
- Cash flows should include corporate assets/fixed overheads where these can be reasonably allocated across CGUs
- Be consistent – if nominal cash flows, then use nominal discount rate

Future cash flows: questions to consider

How do the forecasts compare to those used in previous tests and at acquisition?

Has an appropriate tax rate been used?

Do the overall cash flows and terminal growth assumptions make sense?

How do actual results compare to budget?

Have the forecasts been risk adjusted?

What FX assumptions have been made?

Are there any unusual / unexpected fluctuations or adjustments in the cash flows?

Has transfer pricing been appropriately dealt with?

What is driving expected growth, and is this reasonable?

Restructurings and enhancements

Unless the entity can provide for restructuring costs under IAS 37, the related cash flows cannot be included in the impairment test

Similarly, effects of improving an asset's performance cannot be included until the respective cash outflows have been incurred

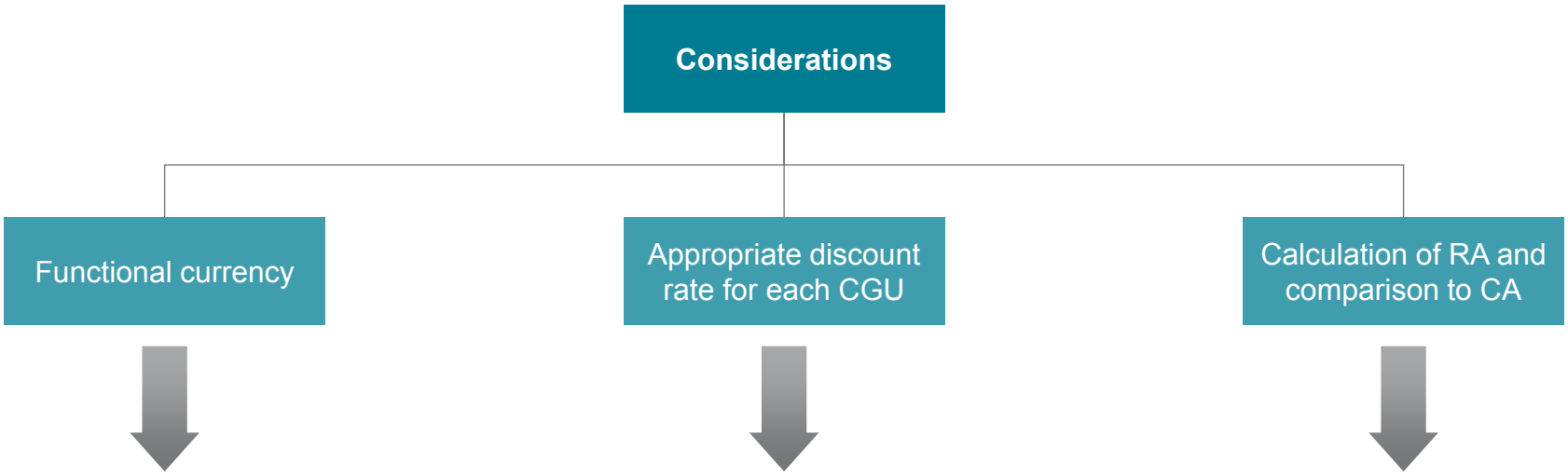
May result in impairment loss in the current period and, in the subsequent period, in a further cost related to the restructuring / enhancement

Solution

- Asset impairments need to be reversed if the economic circumstances change (e.g. due to restructuring). Therefore, the impairment loss is reversed
- However, **goodwill impairment can never be reversed** under IAS 36. Therefore, both impairment loss and restructuring costs are recognised by the entity (despite being the result of the same economic event)

Efficiency improvements may be included in VIU cash flows - are different from enhancements and are a normal part of any business

Foreign currency cash flows



"Future cash flows are estimated in the currency in which they will be generated"

Some CGUs may generate cash flows in a number of different territories, depending on the level at which the CGU has been set i.e. operating segment or individual entity level

Consider the use of blended cash flows and blended discount rate

Foreign currency cash flows should be ***"discounted using a discount rate appropriate for that currency"***

This should reflect the currency and country specific risks (e.g. inflationary, political) associated with the specific CGU

Use local government bond yields

UK/US/EU bond yield + country risk premium

RA should be calculated in the functional currency of the CGU, and then converted to the reporting currency "***using the spot exchange rate at the date of the VIU calculation"***

VIU reasonableness check

Future cash flows and discount rate estimates are inherently uncertain

Therefore, reasonableness testing of VIU results is especially important

Comparing the implied earnings multiples for the subject CGU resulting from the VIU calculation to multiples from selected comparable quoted companies and comparable transactions peer group

Cross check to multiples

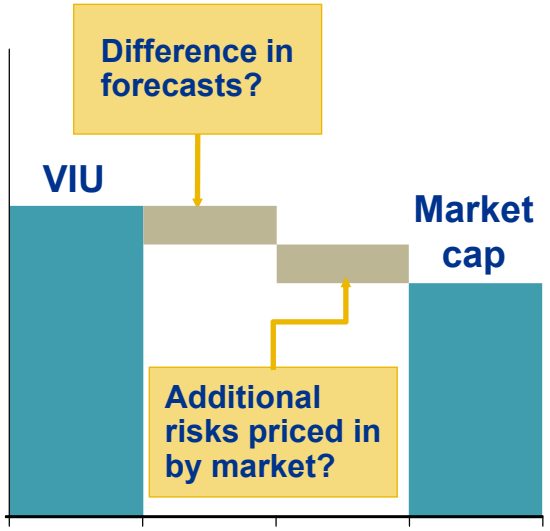
Cross check to market cap

Comparing the sum of VIU calculations for all CGUs within the subject company to the sum of the market capitalisation and net debt (i.e. EV) for the subject company as of the impairment test date

Reasonable?

Conclusion

CoCo multiple analysis			
	EV/EBITDA		
Company	LFY-1	LFY	LFY+1
CoCo 1	8.3x	8.0x	5.9x
CoCo 2	11.8x	10.5x	8.9x
CoCo 3	13.0x	9.8x	8.0x
CoCo 4	13.3x	9.8x	8.1x
CoCo 5	13.1x	12.8x	11.3x
Mean	**11.9x**	**10.2x**	**8.4x**
Median	**13.0x**	**9.8x**	**8.4x**
Subject company	**13.5x**	**11.6x**	**9.7x**



Taxation

Pre-tax vs post-tax

IAS 36	■ Requires VIU to be determined using pre-tax cash flows and a pre-tax discount rate
In practice	■ WACC is estimated on a post-tax basis, therefore it is more common to use post-tax cash flows and a post-tax discount rate
In theory	■ Discounting post-tax cash flows at a post-tax rate and discounting pre-tax cash flows at a pre-tax discount rate should give the same result
Solution	■ Starting point should be post-tax cash flows discounted at post-tax discount rates ■ The implied pre-tax discount rate can then be estimated for IAS 36 disclosure purposes by 'back-solving' using pre-tax cash flows and the value implied by the post-tax VIU

The correct pre-tax discount rate is in general not equal to the post-tax discount rate grossed up by a standard tax rate

Taxation: a worked example

Various allowable deductions impact effective tax rate

Brought forward tax losses are not included – accounted for separately under IAS 12

Effective tax rate						
	2013	**2014**	**2015**	**2016**	**2017**	**TV**
Statutory tax rate	*35.0%*	*35.0%*	*35.0%*	*35.0%*	*35.0%*	*35.0%*
Amortisation benefit	*(17.9%)*	*(12.5%)*	*(12.2%)*	*(9.6%)*	*(5.0%)*	-
Effective tax rate	***17.1%***	***22.5%***	***22.8%***	***25.4%***	***30.0%***	***35.0%***

VIU on a post-tax basis

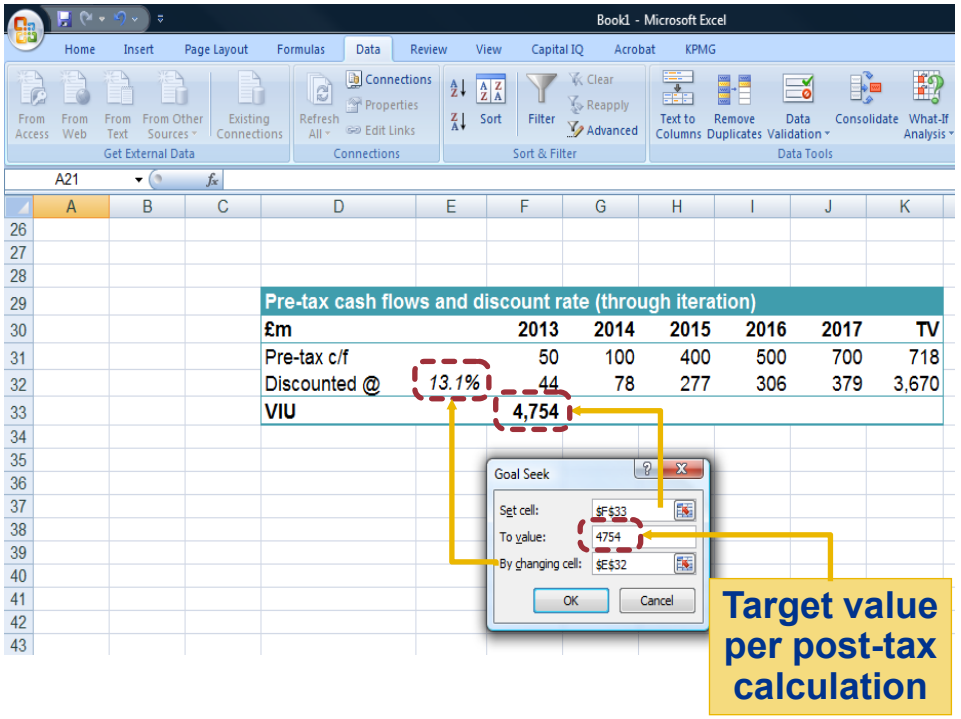
Post-tax cash flows and discount rate						
£m	**2013**	**2014**	**2015**	**2016**	**2017**	**TV**
Pre-tax c/f	50	100	400	500	700	718
Tax @ effective rate	(9)	(23)	(91)	(127)	(210)	(251)
Post-tax c/f	41	78	309	373	490	466
Discount @ 10%	38	64	232	255	304	3,861
VIU	**4,754**					

Simply grossing up the post-tax WACC by the standard tax rate of 35% understates value as it ignores the variability in the effective tax rate

Pre-tax cash flows and grossed up discount rate						
£m	**2013**	**2014**	**2015**	**2016**	**2017**	**TV**
Pre-tax c/f	50	100	400	500	700	718
Discount @ 15.4%	43	75	260	282	342	2,723
VIU	**3,726**					

Taxation: a worked example (cont.)

- The pre-tax discount rate can be implied from the VIU arising from the post-tax cash flows discounted using a post-tax discount rate
- This can be done using the ‘goal seek’ function in Microsoft Excel
- When goal seeking, Microsoft Excel varies the value in one specific cell (here the pre-tax WACC in cell C5) until a formula that's dependent on that cell (here the VIU in cell C11) returns the result which is required (VIU from the post-tax calculation)
- In the example a pre-tax WACC of 13.1% is determined to result in an identical value in use when discounting pre-tax cash flows instead of post-tax cash flows



Goal seek function in Excel
Data → What-If Analysis → Goal Seek

Other issues: Tax amortisation benefit

- In the previous example, the effective tax rate applied in the terminal period did not include any tax saving from amortisation, as amortisation would not ordinarily be expected to continue into perpetuity
- Amortisation can however be separately modelled and a TAB added to the value calculated under VIU

Amortisation within CGU expected to continue until 2022

Tax amortisation benefit 2018 - 2022					
£m	**2018**	**2019**	**2020**	**2021**	**2022**
Pre-tax c/f	718	735	754	773	792
Amortisation savings on tax rate	*4.0%*	*3.0%*	*3.0%*	*2.0%*	*2.0%*
Cash tax saving	29	22	23	15	16
Discounted @ 10%	18	11	11	7	6
Total TAB	**52**				

Added to VIU calculation when arriving at RA

Would expect a decline over time as absolute amortisation figure represents a smaller proportion of total cash flows (which grow year on year)

Cash flows grown by TV growth rate

Discount rates

Discount rate

'The discount rate is the return that investors would require if they were to choose an investment that would generate cash flows of amount, timing and risk profile equivalent to those the entity expects to derive from the asset

Pre-tax rate	■ Pre-tax discount rate is consistent with pre-tax cash flows, however standard discount rates are usually estimated in post-tax terms
Reflecting current market assessment of time value of money	■ For the periods until the end of the asset's useful life, indicated by current market risk-free rate of interest
Reflecting current market assessment of specific risks cash flow not adjusted for	■ Price for bearing uncertainty inherent in the asset and other sometimes unidentifiable factors (such as business specific or forecasting risks) that a market participant would reflect

- Starting point might be entity specific weighted average cost of capital (WACC), but must reflect a **market participant's view** of the asset or CGU at the current date i.e. **while cash flows are entity specific, the discount rate is not**
- In theory the WACC of an entity is the weighted average of all the WACCs of its CGUs
- Discount rate is **independent of the entity's capital structure** and the way it financed the purchase of the asset (i.e. should reflect market capital structure). For example, the entity may have financed acquisition through 100% debt financing, but that does not necessarily mean you would only use cost of debt!

Calculation of the WACC

Weighted Average Cost of Capital

- Market participant
- Specific to the CGU (not the company as a whole)

Debt and equity weighting

- Estimated optimal long-term capital structure
- Market participant expectation, not entity specific

Consider:

- Comparable companies
- How a market participant might finance an acquisition of the subject business

Corporate tax rate

- Long term statutory corporate tax rate
- Inclusion reflects that interest payments are tax deductible

$$WACC = [E/(D+E) \times K_e] + [D/(D+E) \times K_d \times (1-t)] = X\%$$

Cost of Equity (K_e)

- Typically estimated using Capital Asset Pricing Model (CAPM)
- Estimates cost of equity by adding risk premiums to the risk-free rate

Cost of Debt (K_d)

- Long-term rates incurred at date of valuation for new borrowings
- Consider:
  - Subject entity's cost of debt;
  - Publicly traded debt of comparable companies;
  - The corporate spread (based on the credit rating or comparable companies) over a government bond; and
  - Yield on generic corporate investment grade debt of long-term (i.e. 10-20 year) maturity in the country where the debt is raised

Estimating the cost of equity

Risk free rate

- Yield on government bonds in the same currency as cash flows and of similar duration
- Should reflect the country specific risks through:
  - use of foreign country government bond yield; or
  - use of UK/US/EU bond yield and addition of a country risk premium (CRP)
- Based on long term (10 – 30 year) government bonds

Market risk premium

- Long-term required return on equities
- Empirical studies based on historical data, forward looking models, and surveys
- Based on current market conditions in developed nations (e.g. US, UK)

$$K_e = R_f + \beta \times (R_m - R_f) + \alpha$$

Beta

- Reflects the risk of a particular sector or industry relative to the market as a whole
- Long-term view of industry risk based on listed comparable companies
- Consider time-period and any distortions from market volatility

Company specific premium

- Added to the cost of equity when a firm is determined to carry additional risk that may not be reflected in the beta, i.e. risk that cannot be attributed to market risk, including:
  - Size (e.g. Ibbotsons)
  - Business specific operational / financial
  - Forecasting
  - Illiquidity
- The discount rate cannot, therefore, be computed independently of the cash flows (with no consideration to how bullish/bearish the forecasts may be)

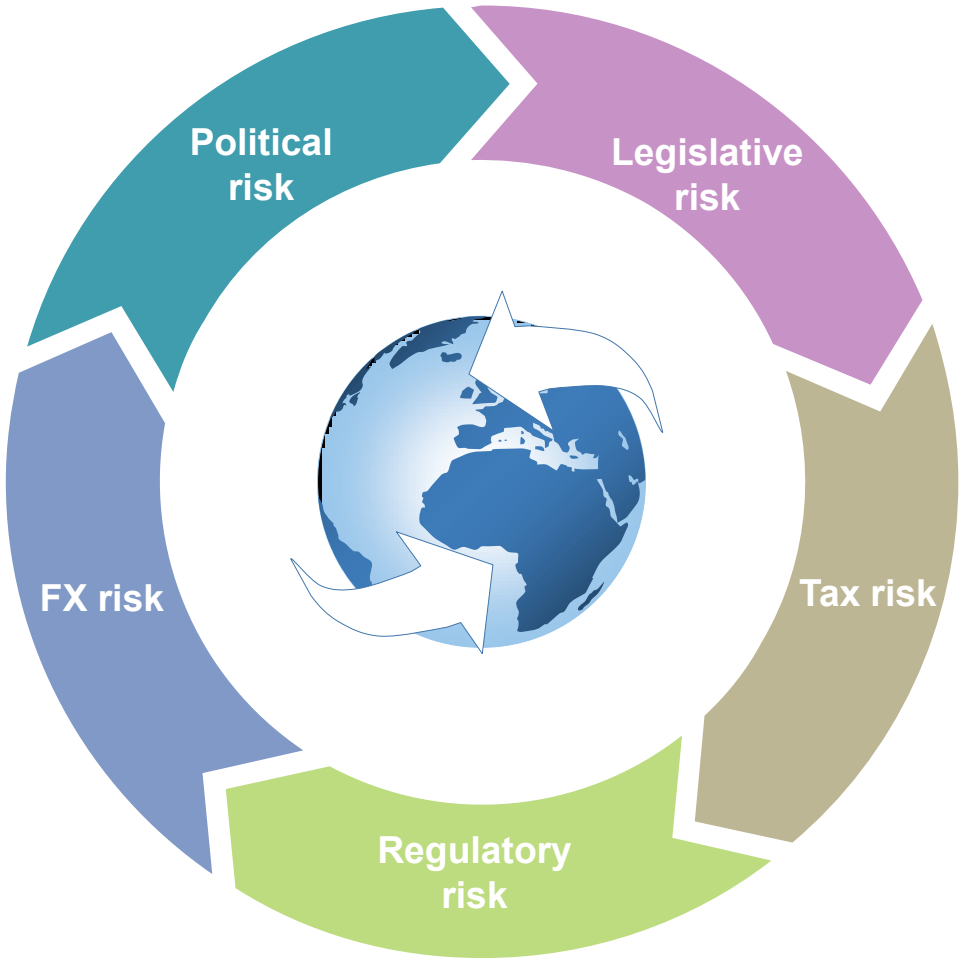
WACC: sources of information

Risk free rates	■ Generally consider yields on long-dated government bonds as at impairment testing date. Sources: newspapers (such as the FT) or data providers such as Bloomberg, DataStream or Reuters ■ Where cash flows are generated in different territories, consider addition of a CRP ■ Key current issue is the decline yields on longer-dated government bonds observed in recent years, due to factors including the fragile economic environment, quantitative easing and a flight to quality
Equity betas	■ Calculated for individual listed companies using regression analysis against an appropriate share index (e.g. in UK the FTSE all share index) ■ Estimated for each asset or CGU by benchmarking beta data from quoted comparable companies. If listed, the company-specific beta does provide a reference point; however, the beta should be benchmarked against all market participants ■ Consideration should be given to the period over which the beta is measured (usually over a two or five year period in volatile markets) ■ Observed equity betas for listed comparable companies reflect the capital structure of those specific companies; therefore observed betas need to be "de-levered" ■ Sources include Bloomberg, DataStream and London Business School, or can be calculated from first principles
Market risk premium	■ Incremental return that shareholders require from holding risky equities rather than risk-free securities ■ Based on empirical studies for developed markets like US and UK ■ Sources – various studies published (with a focus on the US market). Relevant UK studies have been done by Barclays Capital and Credit Suisse/LBS which indicate a range of 4% to 6% ■ KPMG in-house view 5%

WACC: sources of information (cont.)

Alpha factors	■ Size premium – source Ibbotson's SBBI valuation year book ■ Other company specific and forecast – experience and overall sense check of value
Debt to equity gearing	■ Future gearing is commonly estimated by reference to historical data ■ Debt to equity gearing can be estimated by reference to historical data for listed comparable companies – care should be taken over what period of time is considered to ensure market gearing is not distorted by one-off years ■ Sources: Bloomberg, DataStream, comparable company annual reports
Cost of debt	■ Cost of debt should be based on long term rates, rather than the rates negotiated historically in the debt markets for existing borrowings ■ Can also be considered in terms of a margin above the risk-free rate based on credit rating of the subject entity ■ Can be benchmarked to yields on comparable company listed debt instruments. If no comparable company information, can reference to yields on composite bonds of a given credit rating (investment grade BBB) as at the impairment testing date (Source: Bloomberg)
Tax rates	■ Should reflect the corporation tax rate for the countries the asset or CGU operates in

WACC: country risk premium



Investing in foreign countries carries additional risk

- Due to increasing correlation of international markets, these risks cannot readily be diversified and need to be accounted for separately

The KPMG Country Risk Model

- WACC based on a risk free rate and market risk premium for a developed economy
- CRP is then added to the CAPM
- CRP is derived as follows:
  - Observable CRP: average yield spread between Euro or US Dollar denominated bonds of the local country and benchmark bonds of Germany and the US (using equal times to maturity);
  - Statistical CRP: based on regression analysis utilising long-term foreign currency ratings from rating agencies and CRP data from countries with observable CRP, transforming the data into a numeric scale
- Data is updated quarterly

Other sources

- Analysts estimates
- Aswath Damodaran provides monthly estimates http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

WACC: blended discount rates

In theory

- Cash flows that are generated in multiple countries should be discounted separately using local currency discount rates and local currency MRPs (through the addition of CRPs) to determine VIU, and then translated at the spot rate to determine VIU in the CGU's functional currency

In practice

- May not be possible because of the granularity of the cash flow forecasts

Solution

- Calculate a discount rate (including CRP) for each country, and weight by a suitable measure in order to estimate a blended discount rate to apply to the total cash flows

Weighted WACC

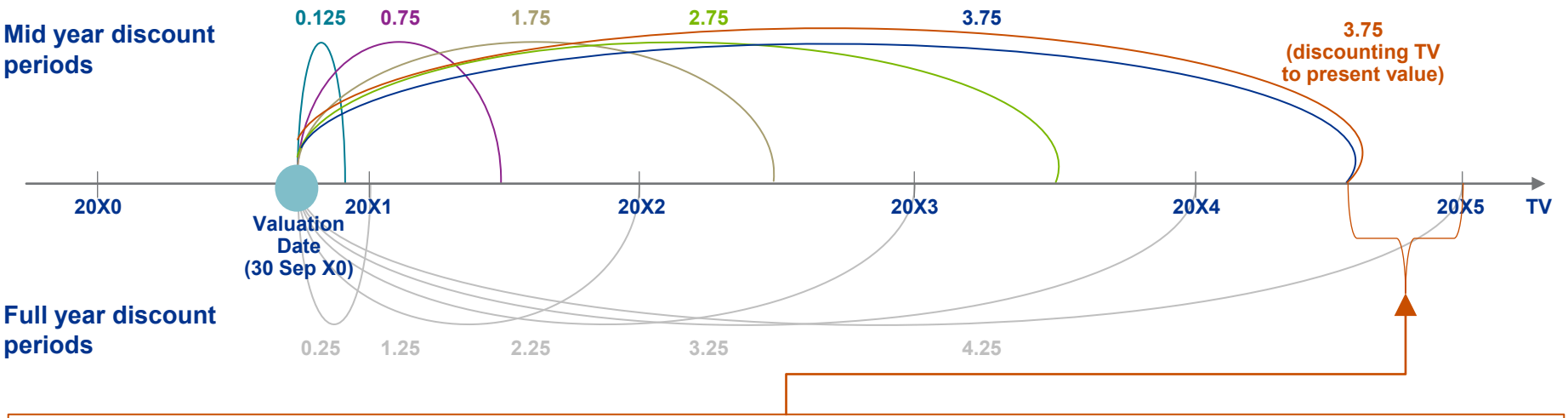
Country	UK risk free rate	CRP	Beta	MRP	Alpha factor	Cost of equity	Cost of debt (pre-tax)	Tax rate	Cost of debt (post-tax)	D/D+E	WACC	Revenue weighted	EBIT weighted
UK	4.0%	-	1	5.0%	4.0%	13.0%	8.0%	24%	6.1%	20%	11.6%	3.8%	4.8%
Germany	4.0%	-	1	5.0%	4.0%	13.0%	8.0%	30%	5.6%	20%	11.5%	2.3%	2.2%
Brazil	4.0%	2.6%	1	5.0%	4.0%	15.6%	8.0%	34%	5.3%	20%	13.5%	4.4%	2.5%
China	4.0%	1.1%	1	5.0%	4.0%	14.1%	8.0%	25%	6.0%	20%	12.5%	0.8%	1.0%
India	4.0%	3.6%	1	5.0%	4.0%	16.6%	8.0%	34%	5.3%	20%	14.3%	1.2%	1.8%
Total												**12.5%**	**12.4%**

Discount periods

- The discount factor is calculated as follows:

$$\frac{1}{(1+\text{discount rate})^{\text{discount period}}}$$

- In calculating the discount period, KPMG typically uses the mid point of each financial period as the basis of the discount period, on the assumption that all cash flows accrue evenly over the period. This is summarised in the illustration below



The Gordon Growth Model gives the TV in present value terms as at the end of the explicit forecast period (i.e. 31 December 20X4 in the above example) and therefore 0.5 should be added to the final discount period. However, the Gordon Growth Model also assumes that all cash flows to perpetuity are received at the end of the year, and therefore the TV should be multiplied by $(1+WACC)^{0.5}$ in order to assume mid-year cash flows / discounting, which is mathematically equivalent to deducting 0.5 from the discount period. This results in the TV discount period being the same as the discount period assumed in the final year of the explicit forecast period.

Carrying amounts

Determination of CGU carrying amounts

Overall principle (IAS 36 paragraph 75)	■ **"The carrying amount of a CGU shall be determined on a basis consistent with the way the recoverable amount of the CGU is determined"** ■ Is the total CA of the CGUs net operating assets
Assets (IAS 36 paragraph 76a)	■ Only assets that can be attributed directly, or allocated on a reasonable and consistent basis ■ Must include all assets that will generate the future cash flows
Recognised liabilities (IAS 36 paragraph 76b)	■ No financing activities are considered (free cash flow to firm) ■ Include liabilities that are included in determination of the RA (e.g. trade debtors, environmental provisions)
Working Capital (IAS 36 paragraph 88)	■ For practical reasons allocation is accepted. Working capital has to be considered in cash flow determination and accordingly in the carrying amount
Pensions	■ The recoverable amount should be determined without any consideration of pension costs. Consequently, pensions must not be considered in the carrying amount. Alternatively, recoverable amount can be reduced by pensions liability, which correspondingly has to be considered in the carrying amount
Tax assets	■ Assets and liabilities in connection with taxes such as deferred tax assets and liabilities and current tax assets and liabilities are not considered
Minority interests	■ The goodwill may not include any minority interest. Due to the fact that the recoverable amount includes minority interest, the carrying amount has to be grossed up

Consistency between CGU carrying amount and basis of RA calculation is key

Disclosures

Key quantitative disclosures

Impairment charges recognised

The impairment charges in respect of goodwill recognised in the consolidated income statement as a separate line item within operating loss are as follows:

Cash generating unit	Segment	2009 £m	2008 £m
UBM Technology	Events, Data, Services and Online, and Print – Magazines[1]	47.0	-
CMPMedica	Events, Data, Services and Online, and Print – Magazines[1]	67.0	-
Commonwealth Business Media	Events, Data, Services and Online, and Print – Magazines[1]	35.8	-
		149.8	-

[1] Assets (including goodwill) and liabilities of the CGUs have not been allocated to the three business segments within Events, Data, Services and Online, and Print – Magazines

Discount and long term growth rates

The key assumptions for discount rate and perpetuity growth rate used in the most recent value in use calculation in the year ended 31 December 2009 are as follows:

	2009 Pre-tax discount rate	2009 Perpetuity growth rate	2008 Pre-tax discount rate	2008 Perpetuity growth rate
UBM Technology	12.0%	2.5%	n/a*	n/a*
CMPMedica	12.6%	2.6%	12.6%	2.3%
Commonwealth Business Media	13.3%	2.3%	n/a*	n/a*

* Value in use calculation not performed in 2008

Recognised impairment charges

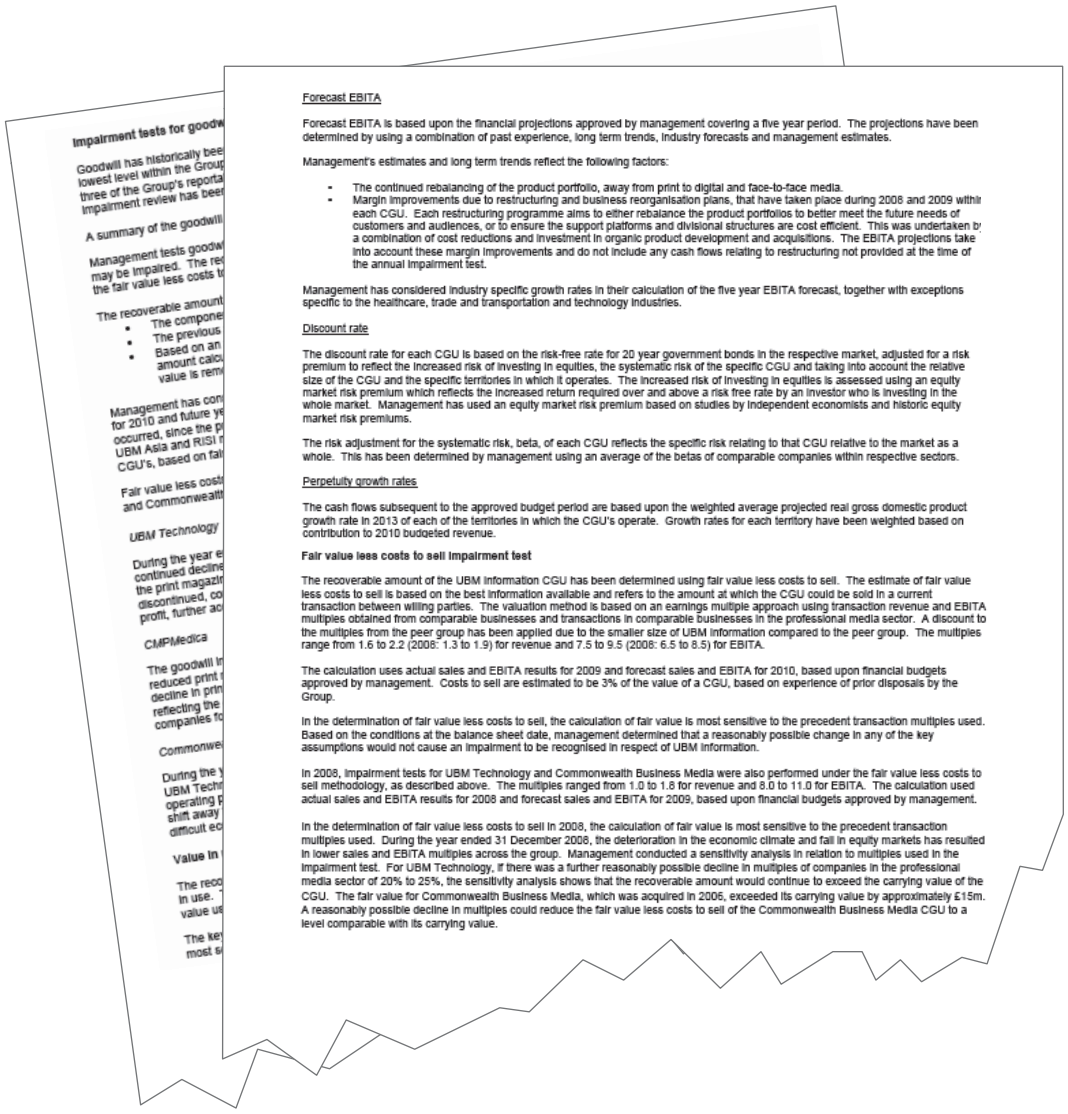
Sensitivity analysis

Following the charge for impairment, the estimated recoverable amount of the UBM Technology, CMPMedica and Commonwealth Business Media CGU's are equal to their carrying value at 31 December 2009. Consequently, any adverse change in key assumption would, in isolation, cause a further impairment loss to be recognised.

The table below shows the (increase)/decrease in the aggregate impairment loss of a reasonably possible change in each assumption:

	UBM Technology £m	CMP Medica £m	Commonwealth Business Media £m
EBITA forecasts			
Decrease by 10%	(19.0)	(22.9)	(7.5)
Increase by 10%	19.0	22.9	7.5
Pre-tax discount rate			
Increase by 20 basis points	(3.8)	(4.1)	(1.3)
Decrease by 20 basis points	3.9	4.3	1.3
Perpetuity growth rate			
Increase by 0.5 percentage point	7.0	7.5	2.2
Decrease by 0.5 percentage point	(6.3)	(6.8)	(2.0)

Key qualitative disclosures



Forecast EBITA

Forecast EBITA is based upon the financial projections approved by management covering a five year period. The projections have been determined by using a combination of past experience, long term trends, industry forecasts and management estimates.

Management's estimates and long term trends reflect the following factors:

- The continued rebalancing of the product portfolio, away from print to digital and face-to-face media.
- Margin improvements due to restructuring and business reorganisation plans, that have taken place during 2008 and 2009 within each CGU. Each restructuring programme aims to either rebalance the product portfolios to better meet the future needs of customers and audiences, or to ensure the support platforms and divisional structures are cost efficient. This was undertaken by a combination of cost reductions and investment in organic product development and acquisitions. The EBITA projections take into account these margin improvements and do not include any cash flows relating to restructuring not provided at the time of the annual impairment test.

Management has considered industry specific growth rates in their calculation of the five year EBITA forecast, together with exceptions specific to the healthcare, trade and transportation and technology industries.

Discount rate

The discount rate for each CGU is based on the risk-free rate for 20 year government bonds in the respective market, adjusted for a risk premium to reflect the increased risk of investing in equities, the systematic risk of the specific CGU and taking into account the relative size of the CGU and the specific territories in which it operates. The increased risk of investing in equities is assessed using an equity market risk premium which reflects the increased return required over and above a risk free rate by an investor who is investing in the whole market. Management has used an equity market risk premium based on studies by independent economists and historic equity market risk premiums.

The risk adjustment for the systematic risk, beta, of each CGU reflects the specific risk relating to that CGU relative to the market as a whole. This has been determined by management using an average of the betas of comparable companies within respective sectors.

Perpetuity growth rates

The cash flows subsequent to the approved budget period are based upon the weighted average projected real gross domestic product growth rate in 2013 of each of the territories in which the CGU's operate. Growth rates for each territory have been weighted based on contribution to 2010 budgeted revenue.

Fair value less costs to sell impairment test

The recoverable amount of the UBM Information CGU has been determined using fair value less costs to sell. The estimate of fair value less costs to sell is based on the best information available and refers to the amount at which the CGU could be sold in a current transaction between willing parties. The valuation method is based on an earnings multiple approach using transaction revenue and EBITA multiples obtained from comparable businesses and transactions in comparable businesses in the professional media sector. A discount to the multiples from the peer group has been applied due to the smaller size of UBM Information compared to the peer group. The multiples range from 1.6 to 2.2 (2008: 1.3 to 1.9) for revenue and 7.5 to 9.5 (2008: 6.5 to 8.5) for EBITA.

The calculation uses actual sales and EBITA results for 2009 and forecast sales and EBITA for 2010, based upon financial budgets approved by management. Costs to sell are estimated to be 3% of the value of a CGU, based on experience of prior disposals by the Group.

In the determination of fair value less costs to sell, the calculation of fair value is most sensitive to the precedent transaction multiples used. Based on the conditions at the balance sheet date, management determined that a reasonably possible change in any of the key assumptions would not cause an impairment to be recognised in respect of UBM Information.

In 2008, impairment tests for UBM Technology and Commonwealth Business Media were also performed under the fair value less costs to sell methodology, as described above. The multiples ranged from 1.0 to 1.8 for revenue and 8.0 to 11.0 for EBITA. The calculation used actual sales and EBITA results for 2008 and forecast sales and EBITA for 2009, based upon financial budgets approved by management.

In the determination of fair value less costs to sell in 2008, the calculation of fair value is most sensitive to the precedent transaction multiples used. During the year ended 31 December 2008, the deterioration in the economic climate and fall in equity markets has resulted in lower sales and EBITA multiples across the group. Management conducted a sensitivity analysis in relation to multiples used in the impairment test. For UBM Technology, if there was a further reasonably possible decline in multiples of companies in the professional media sector of 20% to 25%, the sensitivity analysis shows that the recoverable amount would continue to exceed the carrying value of the CGU. The fair value for Commonwealth Business Media, which was acquired in 2006, exceeded its carrying value by approximately £15m. A reasonably possible decline in multiples could reduce the fair value less costs to sell of the Commonwealth Business Media CGU to a level comparable with its carrying value.

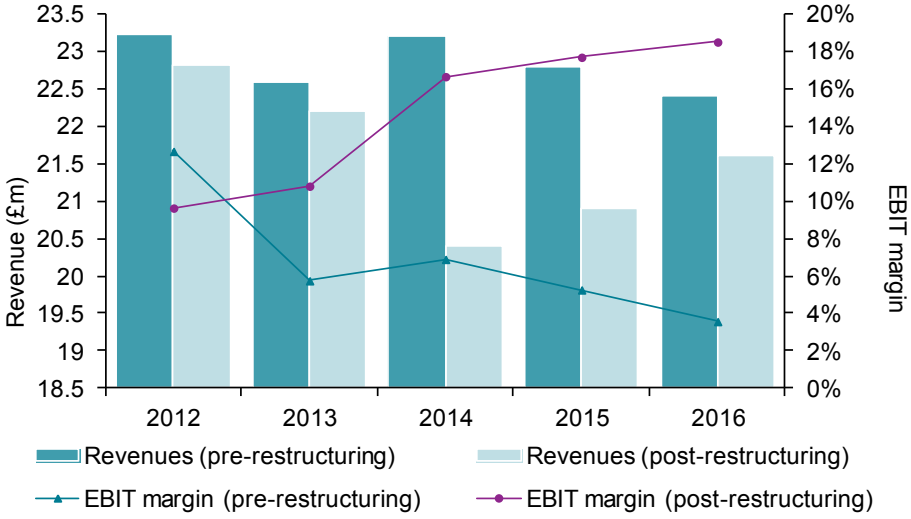
- Valuation approach taken for each CGU
- Description of key assumptions, including cash flows, discount rates, and growth rates (for VIU) and multiples (for FVLCTS)
- Basis for management's decisions regarding key assumptions
- Whether value assigned to cash flow assumptions is based on previous experience or, if appropriate, external sources
- Rationale for any impairment losses recognised

Disclosures should be consistent with the entity's other market communications

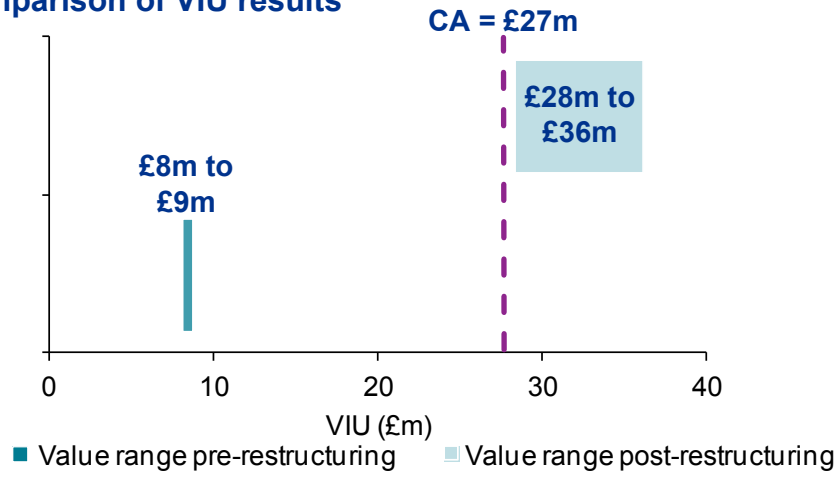
Case studies

Case study: planned restructuring

Comparison of forecasts



Comparison of VIU results



Overview and challenges

- Data provider to the aviation industry
- Facing a dramatic decline in demand for legacy print products, with delays in launches of new digital services
- Impairment testing date mid-way through financial year
- Detailed restructuring plan developed which management expected to result in improved margins and would imply no impairment – but did not meet IAS 37 criteria at impairment testing date due to internal delays in getting board approval

Our approach

- Management obtained auditor sign off to use restructuring forecasts – IAS 37 criteria was met shortly after impairment testing date and it was agreed that the delay in doing so was only due to waiting for board approval
- In performing VIU analysis, conducted a detailed review of restructuring plan to understand the key value drivers
- Applied an appropriate alpha factor to reflect additional risks associated with successful implementation of restructuring

Case study: large number of CGUs

CGUs as at the impairment testing date					
	Product line				
Division	Product A	Product B	Product C	Product D	Product E
Division 1	CGU 1	CGU 2	CGU 3	CGU 4	
Division 2	CGU 5	CGU 6	CGU 7	CGU 8	
Division 3		CGU 9			
Division 4	CGU 10		CGU11	CGU12	
Division 5	CGU13				
Division 6	CGU1 4	CGU 15	CGU 16	CGU 17	
Division 7	CGU 18				
Division 8			CGU 19	CGU 20	
Division 9	CGU 21	CGU 22	CGU 23	CGU 24	
Division 10	CGU 25	CGU 26			
Division 11		CGU 27		CGU 28	
Division 12		CGU 29	CGU 30		
Division 13					CGU 31

Overview and challenges

- Client reported 31 CGUs, with goodwill balances ranging from £0.5m to £350m
- Time and budget constraints made individual FVLCTS and VIU testing of each CGU impractical
- Greater number of CGUs = greater granularity in reporting goodwill = greater risk of impairment
- Need for a robust process that was both reliable and efficient

Our approach

- Ranked CGUs by goodwill balance, on basis that larger balance = area of greater risk
- Calculated implied multiples based on CA ÷ EBIT
- Calculated implied discount rate using iteration (to determine at what discount rate VIU = CA)
- Compared headroom from the above to market multiples / calculated WACC in order to identify “at risk” CGUs
- Performed detailed FVLCTS / VIU testing for CGUs identified as being “at risk”

Summary

Summary

Summary

- Impairment testing should be performed annually, unless there is an indication of impairment
- Goodwill impairment testing is performed at the CGU level
- Impairment loss occurs if CA is greater than RA
- RA is higher of FVLCTS or VIU
- FVLCTS – key consideration = market assessment of value less cost of disposal
- VIU – key consideration = value of the asset/CGU in its current condition
- VIU very prescriptive in terms of what cash flows should or should not be included
- IAS 36 states that foreign currency cash flows should be discounted using a discount rate appropriate for that country
- Discount rate –reflects market assessment of the risk of the CGU. Standard discount rate is calculated in post-tax terms. Therefore we recommend doing the impairment test in post-tax terms discounted using a post-tax discount rate. A goal seek can then be used to determine the pre-tax discount rate for statutory reporting purposes
- Consideration should be given to the appropriateness of the tax rates applied and whether any TAB should be included

Do the results make sense in light of performance, market conditions and other circumstances facing the business?

Thank you

Presentation by Doug McPhee

cutting through complexity™