KPMG

cutting through complexity

Impairment Assessment and Building Impairment Test Models

Agenda

- Purpose and background
- Impairment overview
- Building Impairment models
- Reasonableness tests

Purpose

To highlight the importance of impairment reviews

To provide insight into building impairment models

To highlight the level of judgment required

Background

- The need for impairment testing has increased given the volatility of economies within the Caribbean
- This volatility impacts key underlying variables such as:
  - The risk free rate; and
  - The cost of debt.
- Resulting in additional focus on impairment testing.

Background

IMF Article IV consultation

"crisis management plans should include detailed plans to deal with a crisis in the non-bank sector……"

"……The mandate and tools of the Financial Oversight Management Committee (FOMC) should be clarified and improved.."
"Maintaining Financial Stability Will need Close Monitoring, Stronger Supervision".

Source: International Monetary Fund, February, 2014
Article iv Consultation for Barbados

Impairment overview

Impairment overview

- An impairment loss is the amount by which the carrying amount of an asset or cash-generating unit exceeds its recoverable amount.

- The carrying amount is the amount at which an asset is recognised in the Balance Sheet/Statement Of Financial Position after deducting accumulated depreciation and accumulated impairment losses.

Impairment overview

- The fair value less costs of disposal is not easily determined as comparators are primarily North American entities.

- As a result, the recoverable amount of the asset or CGU will be based on its value in use.

Impairment as applied to financial instruments

- Accounting standards relevant to impairment

Relevant Standard	Application of Standard
IFRS 9 – Financial Instruments	Provides guidance on impairment assessments for financial instruments
IAS 36 – Impairment of Assets	Provides guidance on impairment of most other assets
IAS 39 – Recognition and Measurement	Provides guidance on impairment assessments for financial instruments

Impairment as applied to financial instruments

Requirements under the Standard

IAS 39:58 "An entity shall assess at the end of each reporting period whether there is any objective evidence that a financial asset or a group of financial assets is impaired."

Impairment and uncollectibility of financial assets measured at amortised cost

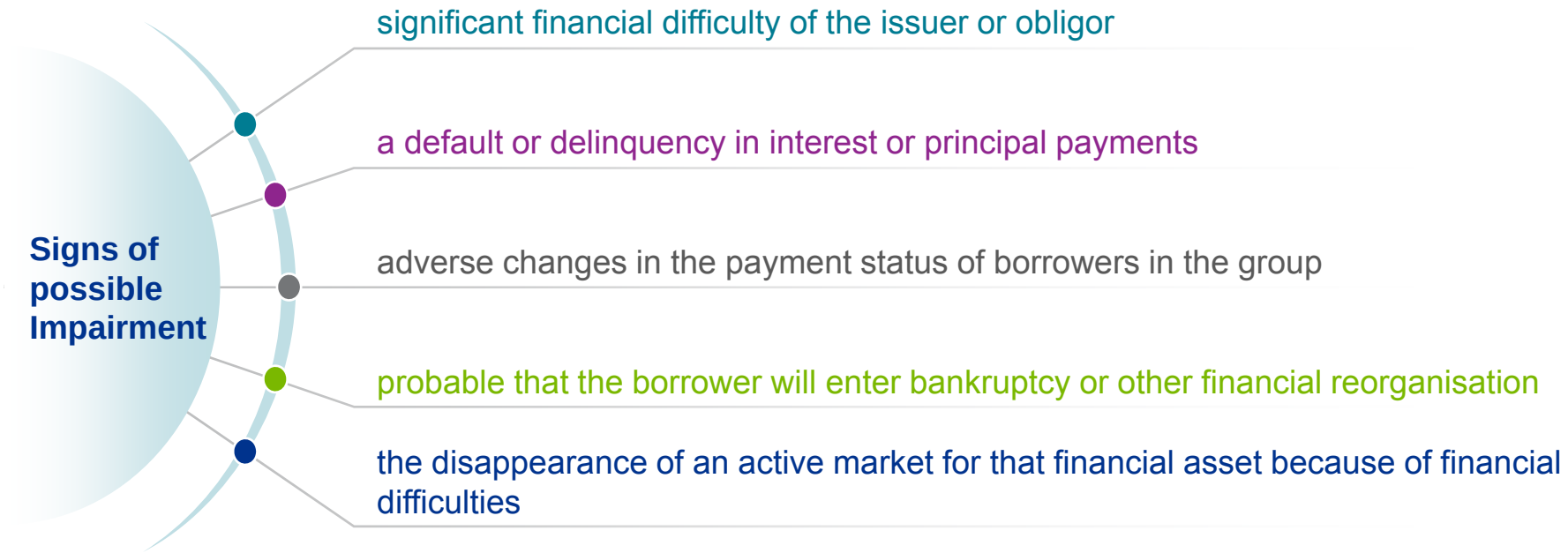
- The carrying amount of the asset shall be reduced either directly or through use of an allowance account. The amount of the loss shall be recognised in profit or loss.

Impairment and uncollectibility of available for sale financial assets

- The cumulative loss recognised in other comprehensive income shall be reclassified and the financial asset is derecognised

Impairment as applied to financial instruments

Objective evidence of possible impairment of financial assets:



Impairment assessment other assets

- An entity shall assess at the end of each reporting period whether there is any indication that an asset may be impaired.
- If any such indication exists, the entity shall estimate the recoverable amount of the asset.

- **Irrespective of whether there is any indication of impairment, an entity shall also:**
  - **Test goodwill acquired in a business combination for impairment annually**
  - **Test an intangible asset with an indefinite useful life or an intangible asset not yet available for use for impairment annually by comparing its carrying amount with its recoverable amount.**

Reducing subjectivity in impairment assessment

There is the perception that impairment is a reflection on the quality of management decisions

1. IFRS provides guidance on what to do in different scenarios
2. Historical performance and historical data are helpful in determining future performance
3. Prudence concept still applicable
4. Consider tax implications
5. Consider frequency of assessments

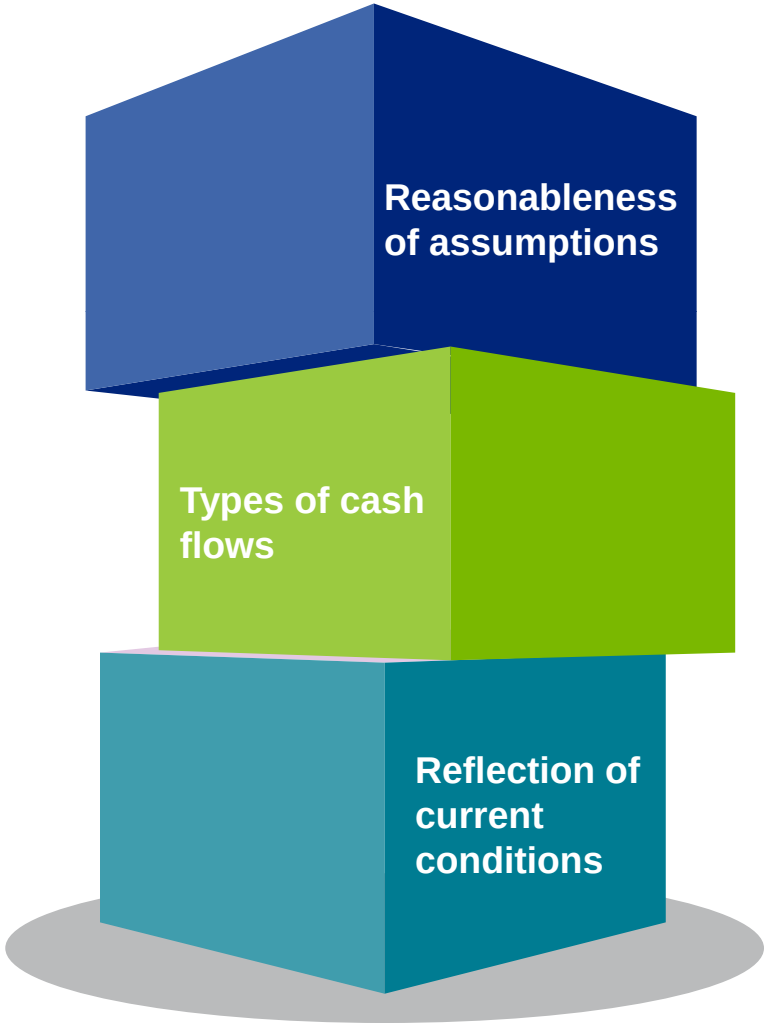
Building impairment test models

Building impairment test models

- Building an impairment test model involves a number of steps:

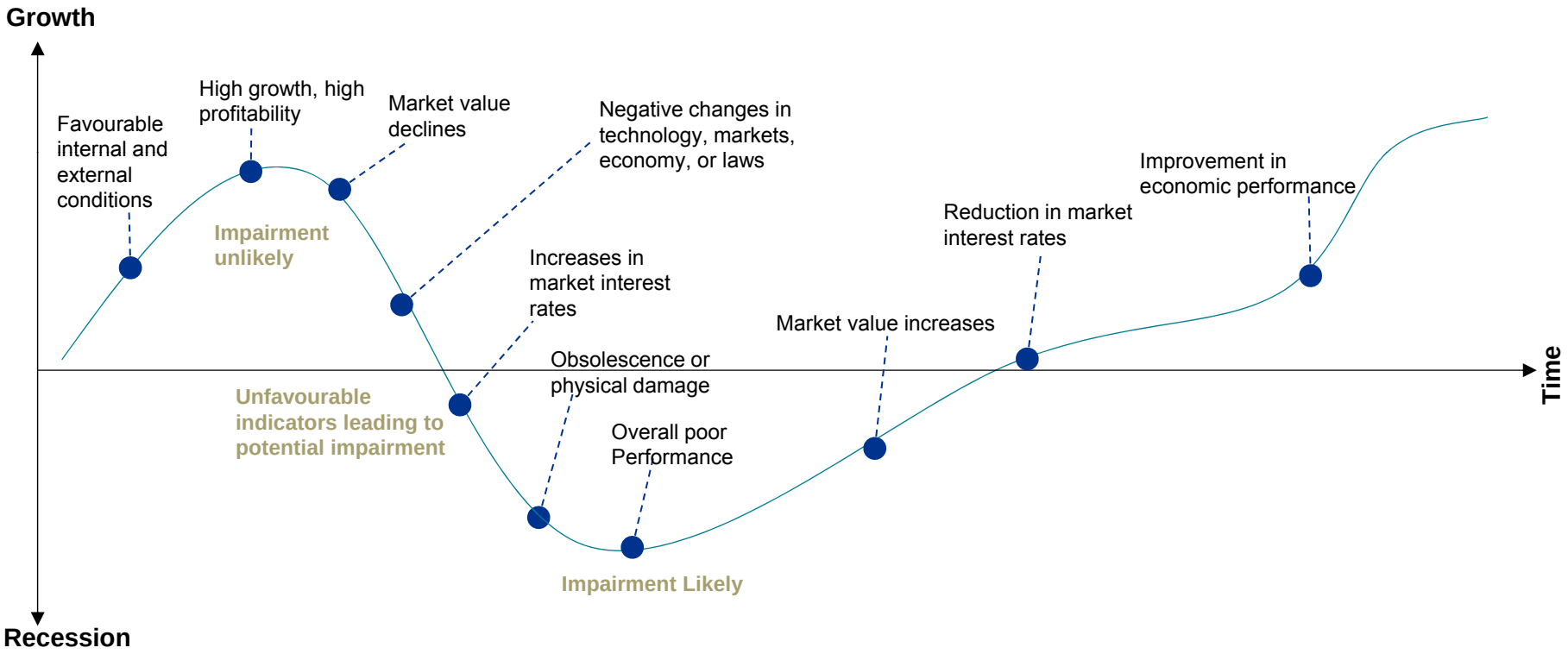
- **Developing appropriate cash flow forecasts**
- **Deriving an appropriate discount rate to apply to the cash flow forecasts**
- **Reviewing other key considerations such as Capex, cash taxes, working capital and net debt**
- **Comparing the present value of the cash flows with the carrying values of the asset as indicated on the balance sheet/ statement of financial position**

Cash flow forecasts – considerations



Other considerations – company life cycle

When reviewing an investment in a subsidiary, the stage in it's life cycle may be an indication of Impairment



Discount rate

- Key assumptions are then required to determine the applicable discount rate.

Key Assumption	Input	Source Information
Revenue Growth		
Inflation		
Gross profit margin		
EBITDA Margin		
Risk-free rate		
Equity risk premium		
Industry risk premium		
Size premium		
Company specific risk		
Pre-tax cost of debt		
Tax rate		
Debt to capital %		
Terminal growth rate		

Discount rate

- The discount rate that must be disclosed is a pre-tax discount rate
  - An impairment analysis is usually performed on a post-tax basis and solved for the pre-tax rate that results in the same value estimate.
  - A pre-tax rate cannot be calculated by grossing up the post-tax rate.

Discount rate

Using post-tax cash flows and a post-tax WACC

Inputs

Post tax WACC (WACC)	10%
Terminal growth rate (g)	2%
Marginal tax rate (t)	26%
Implied pre-tax WACC using simple gross up of post-tax WACC (WACC/(1-t))	13.5%

Step 3
Implied pre-tax WACC is compared to the pre-tax WACC determined by a simple gross up of the post tax WACC.

	1	2	3	4	5	Terminal Year
Pre-Tax Cash flows	100	120	140	150	153	156.1
Growth		20.0%	16.7%	7.1%	2.0%	2.0%
Tax	(26.0)	(31.2)	(36.4)	(39.0)	(39.8)	(40.6)
Tax rate	26%	26%	26%	26%	26%	26%
Post tax free cash flows	**74.0**	**88.8**	**103.6**	**111.0**	**113.2**	**115.5**
Discount rate (mid year)	0.953	0.867	0.788	0.716	0.651	
Discounted cash flow	70.6	77.0	81.6	79.5	73.7	
Terminal cash flow	115.5					
Capitalisation rate (WACC-g)	8%					
Terminal value	1443.6					
Present value of terminal value	940.1					
Sum of discrete cash flows	382.4					
Value in Use	**1,322.5**					

Step 1
Value in Use determined using post-tax cash flows and post-tax WACC.

Using pre-tax cash flows and a pre-tax WACC

Implied pre-tax WACC 12.8%

	1	2	3	4	5	Terminal Year
Pre-Tax Cash flows	100	120	140	150	153	156.1
Growth		20.0%	16.7%	7.1%	2.0%	2.0%
Post tax free cash flows	**100.0**	**120.0**	**140.0**	**150.0**	**153.0**	**156.1**
Discount rate (mid year)	0.941	0.834	0.740	0.655	0.581	
Discounted cash flow	94.1	100.1	103.5	98.3	88.9	
Terminal cash flow	156.1					
Capitalisation rate (WACC-g)	10.8%					
Terminal value	1441.5					
Present value of terminal value	837.5					
Sum of discrete cash flows	485.0					
Value in Use	**1,322.5**					

Step 2
Value in Use determined using pre-tax cash flows and a pre-tax WACC. Goal seek is used to determine the pre-tax WACC which gives an identical value to the post-tax approach.

Other key considerations

Capex

- Forecast expenditure required on capital assets

Cash taxes

- Actual taxes expected to be paid
- Based on calculation of the effective tax rate

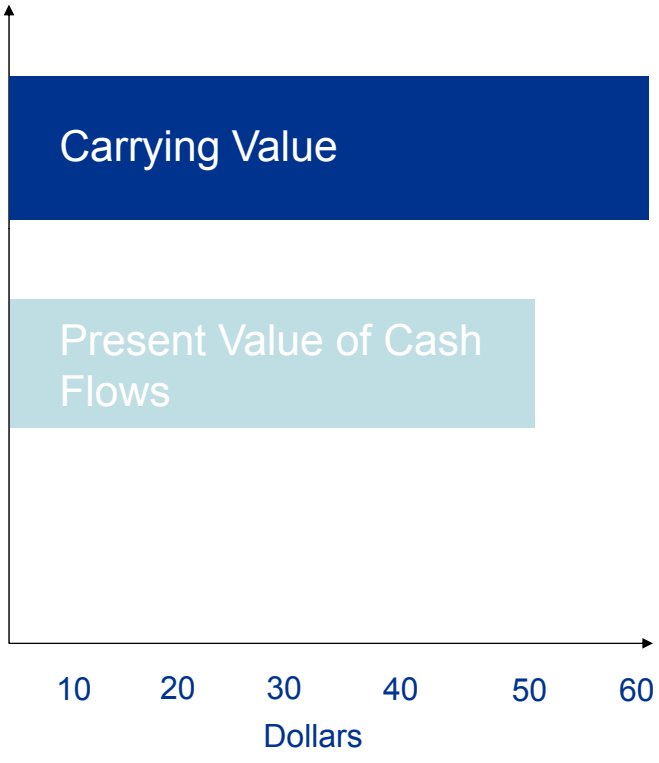
Working Capital

- Working capital included in carrying amount of the CGU, and investments in working capital required from forecast growth should be reflected in cash flows
- Working capital deficits and surpluses should be considered in valuation

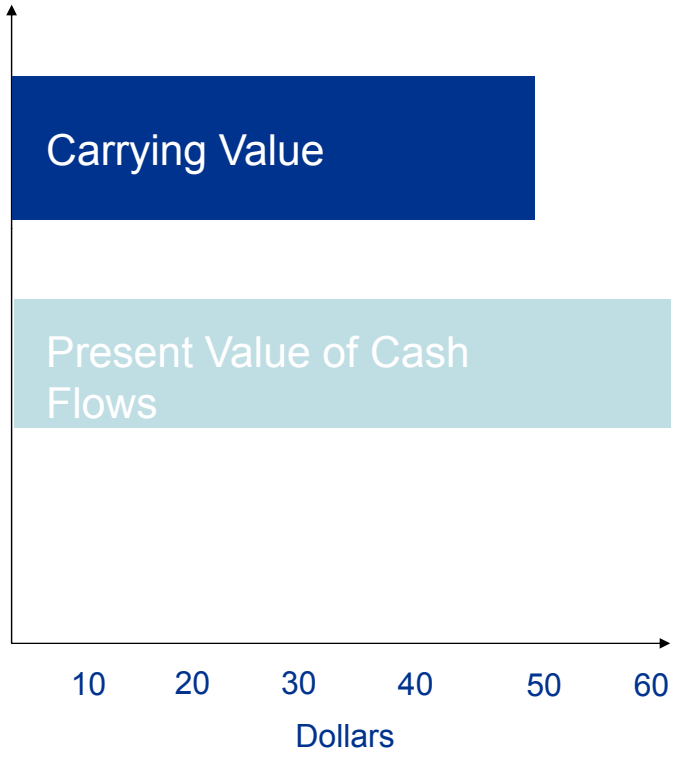
Net Debt

- A metric that shows a company's overall debt situation by netting the value of a company's liabilities and debts with its cash and other similar liquid assets

Comparing present value and carrying value



Impairment



No Impairment

Reasonableness test

Reasonableness test

- Sensitivity analysis of key assumptions
- Comparisons
  - Market capitalisation
  - Earnings multiples
  - Other sources
- Other considerations
  - Return on Assets
  - Return on Equity
  - Functional obsolescence
  - Economic obsolescence

Reasonableness test

Return (historic) on equity assessment Expressed in USD$'000	2013	2014
Equity	77,062	87,807
Earnings	5,577	3,609
Return on equity	**7.2%**	**4.1%**
KPMG Cost of equity	28.6%	28.6%
Differential	-21.3%	-24.5%
Client Cost of equity	24%	24%
Differential	-16.9%	-20.1%

Return (historic) on total assets assessment Expressed in USD$'000	2013	2014
Net Book Value (total assets)	207,229	213,979
Earnings	5,577	3,609
Return on Total Assets	**2.7%**	**1.7%**
KPMG Cost of capital	15.7%	15.7%
Differential	-13.1%	-14.1%
Client Cost of capital	11%	11%
Differential	-8.3%	-9.3%

Thought leadership

KPMG
cutting through complexity

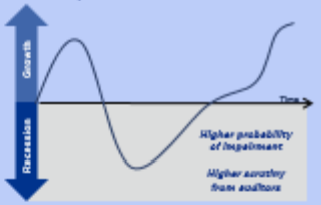
DRAFT

Impairment test modelling

Uncertain macroeconomic environment keeps impairment tests in focus

The volatile economy and capital markets as well as the decreasing interest rate levels create a relatively uncertain market environment for the companies in the short and medium term. The adequate incorporation of the current risks and uncertainties into the budget figures remains a challenge for corporate decision makers. Accordingly, a key recurring exercise of companies will be the annual impairment testing.

Economic cycle



What are the client issues?

- Top management plans to carry out an annual impairment test to examine if there were any triggering events (change in cost of capital, country risk, cross rates, market environment, sales and margin prospects) that could alter the valuation of their investments/CGUs and require creation/reversal of provisions
- Top management requires assistance to check if in-house impairment testing models are still compliant with the recent accounting rules
- Top management faces tighter scrutiny from auditors and supervisory bodies (eg. FAB) for example to revisit if the price paid for an earlier acquisition is still justified

How can KPMG help?

- KPMG has considerable experience in impairment test modelling. We understand the requirements and issues both from a commercial as well as from an auditor's perspective
- Our team has deep knowledge of the current key impairment testing issues and is well placed to determine how they would affect your business
- Our modeling offerings include:
  - Building proprietary and custom made value-in-use and fair value-less-cost-to-sell models
  - Calculation of carrying amount
  - Providing guidance on cost of capital and defining appropriate rate for CGUs
  - Reviewing in-house impairment tests

Why KPMG?

- Our team has extensive experience in performing impairment testing projects and conducting reviews of in-house impairment test
- We are better positioned to anticipate areas that are likely be challenged by your auditors
- Our deep sector understanding makes us an ideal partner for your impairment test modelling or review

KPMG's impairment testing credentials

CREDIT SUISSE, swissport, NYCOMED, Roche, KUEHNE+NAGEL, WINTERTHUR TECHNOLOGY GROUP, Lonza, TAMOIL, Julius Bär, helvetia, swisscom

KPMG
cutting through complexity

Case study

A Swiss industrial manufacturer of grinding technologies needed assistance with managing their impairment test procedures

KPMG's approach

We helped to develop an integrated financial model for the impairment testing process of the client with the following features:

- Determined recoverable and carrying amount for the four cash generating units (CGUs)
- Set up transparent protocol to determine WACC for each of the CGUs' region (Switzerland, Germany, Austria and Sweden)
- Conducted sensitivity analysis on cost of capital and terminal growth rate
- Performed reasonability check based on forward-looking trading multiples of peer companies

Client's benefit

KPMG set up a consistent impairment testing approach across all CGUs, which is compliant with IAS 36. We have also assisted to develop a repeatable process for impairment testing, which was also approved by the client's auditor

Our service – an overview

Key phases of the impairment testing process

- Population of impairment test with latest business plan
- Determine cost of capital and growth rate based on market participant concept
- Determine recoverable amount (i.e. choose the highest from fair value-less-cost-to-sell and value in use) and the carrying amount
- Calculation of any valuation headroom or impairment
- Reconciliation between pre- and post-tax calculation
- Preparation of sensitivity calculations
- Reasonability checks based on trading multiples and current market capitalisation of the company
- Drafting notes to the financial statements
- Preparation of communication towards shareholders/capital markets

Financial Modelling Services

Contact us

KPMG AG
Badenerstrasse 172
CH-8026 Zürich

kpmg.ch

Johannes Post
Valuation & Financial Modeling Services
Partner
Tel. + 41 58 249 36 92
jpost@kpmg.com

Rolf Langenegger
Valuation & Financial Modeling Services
Director
Tel. + 41 58 249 42 71
rlangenegger@kpmg.com

Olaf Kiel
Valuation & Financial Modeling Services
Senior Manager
Tel. + 41 58 249 41 69
okiel@kpmg.com

Questions

Presenter contact information

Stacy-Ann Golding
Partner, Audit

KPMG Trinidad and Tobago
P.O. Box 1328
69-71 Edward Street
Port of Spain
Trinidad and Tobago, W I

T: 1 868 623 1081
M: 1 868 759 1759
Email: sngolding@kpmg.co.tt

Christopher Brome
Partner, Advisory

KPMG Barbados
Hastings
Christ Church
Barbados W.I.

T: 1 246 434 3900
D: 1 246 434 3907
M: 1 246 243 8709
Email: cbrome@kpmg.bb