

# **Derivative & Embedded Derivative**Example

#### **Derivative**

Typical example:

- · Future and forward
- · Swap and options

Value change based on an underlying

Little or no initial net investment

Settled at a future date

Type of contract	Underlying variable		
Interest Rate Swap	Interest rates		
Currency Swap (Foreign Exchange Swap)	Currency rates		
Commodity Swap	Commodity prices		
Equity Swap	Equity prices (equity of another entity)		
Credit Swap	Credit rating, credit index or credit price		
Total Return Swap	Total fair value of the reference asset and interest rates		
Purchased or Written Treasury Bond Option	Interest rates		
Purchased or Written Currency Option	Currency rates		
Currency Futures/Forward	Currency rates		
Commodity Futures/Forward	Commodity prices		
Equity Forward	Equity prices		

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## **Derivative & Embedded Derivative**

#### **Derivative**

 What is the initial measurement and subsequent measurement on derivative?

### Initial measurement

- · Similar to other financial assets and liabilities
  - <u>Fair value</u> plus transaction cost, except for those classified at fair value through profit or loss
- But, a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument) is classified as fair value through profit or loss
  - Implies fair value only

#### Subsequent measurement

- As above, derivative, other than a financial guarantee contract or a designated and effective hedging instrument, is
  - classified and measured at fair value through profit or loss

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### **Derivative & Embedded Derivative**

### Ping An Insurance (Group) Co. of China, Ltd.



Accounting report 2006

Derivative financial instruments

- · Derivative financial instruments include
  - options embedded in convertible bonds purchased by the Group,
  - derivatives embedded in certain insurance contracts,
  - interest rate swaps and futures,
  - credit default swaps.
  - cross currency swaps,
  - forward currency contracts, and
  - options on interest rates, currencies and equities, etc.
- Derivative financial instruments are classified as held for trading
  - unless they are designated as effective hedging instruments.
- · All derivatives are carried
  - as assets when the fair values are positive and
  - as liabilities when the fair values are negative.

Dr Asset Cr Cash Dr Cash Cr Liabilities

### **Derivative & Embedded Derivative**

- · A holder of a hybrid (combined) instrument is required to evaluate whether the embedded derivative should be separately accounted for in accordance with HKAS 39.
- · A hybrid instrument includes
  - a non-derivative host contract and
  - an embedded derivative with the effect that some of the cash flows of the hybrid instrument vary in a way similar to a stand-alone derivative.
- · However, a derivative that is attached to a financial instrument but is contractually transferable independently of that instrument, or has a different counterparty from that instrument, is not an embedded derivative, but a separate financial instrument.

Hybrid (Combined) **Host Contract** Embedded Derivative

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### **Derivative & Embedded**

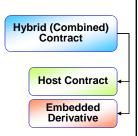
Implication of **HKFRS 9** 

- If a hybrid contract contains a host that is within the scope of HKFRS 9.
  - an entity shall apply the requirements in para. 4.1-4.5 (as discussed in Part 1) to the entire hybrid contract.
- If a hybrid contract contains a host that is <u>not within</u> the scope of HKFRS 9,
  - an entity shall apply the requirements in para. 11-13 and AG27-AG33B of HKAS 39 (as before) to determine whether it must separate the embedded derivative from the host.
- If the embedded derivative must be separated from the host, the entity shall:
  - a. classify the derivative in accordance with either
    - · para.4.1-4.4 for derivative assets or
    - · para. 9 of HKAS 39 for all other derivatives; and
  - b. account for the host in accordance with other HKFRSs.

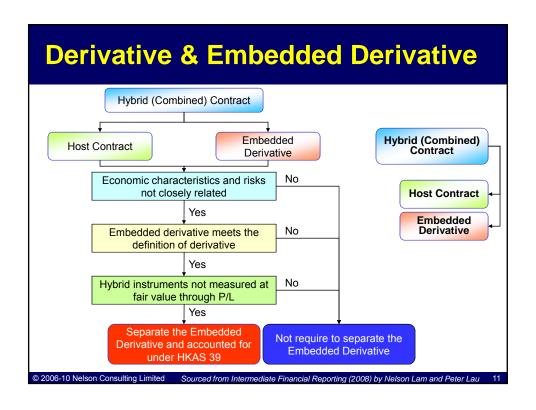
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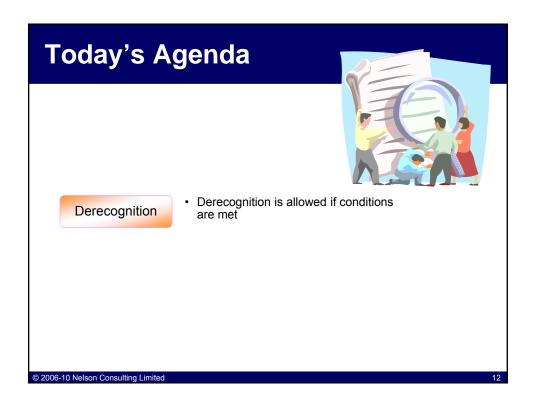
### **Derivative & Embedded Derivative**

- · HKAS 39 requires an entity to separate an embedded derivative from the host contract and account for such embedded derivative as a derivative if, and only if:
  - 1. the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract;
  - 2. a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
  - 3. the hybrid instrument is not measured at fair value with changes in fair value recognised in profit or loss (i.e. a derivative that is embedded in a financial asset or financial liability at fair value through profit or loss is not separated).



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### **Derecognition of Financial Asset**

- <u>Derecognition</u> is the removal of a previously recognised financial asset or financial liability from an entity's balance sheet.
  - Derecognition of an asset or a liability is originally a simple concept.
- Practically, it is <u>not that simple</u> for financial assets and financial liabilities.
  - Even a financial asset or a financial liability had been transferred, either or both the risk and reward and control of the financial asset or the obligation of the financial liability might have not been transferred
  - HKAS 39 sets out detailed derecognition criteria and requirements on financial assets and financial liabilities separately.



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## **Derecognition of Financial Asset**

- The general derecognition criteria in accordance with HKAS 39 require an entity to derecognise a financial asset when, and only when:
  - the <u>contractual rights to the cash flows from the financial</u> <u>asset expire</u>; or
  - the entity transfers the financial asset that meet the conditions set out in HKAS 39 (i.e. "asset transfer test") and

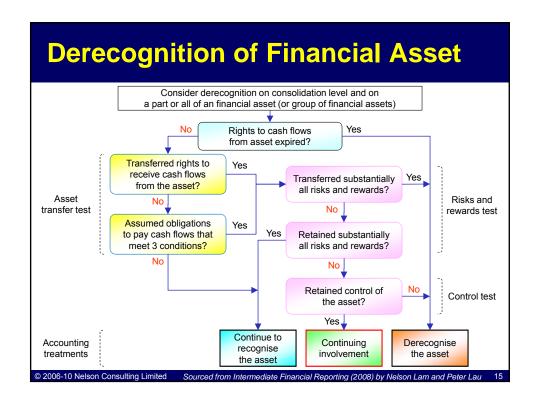
the transfer qualifies for derecognition in accordance with HKAS 39

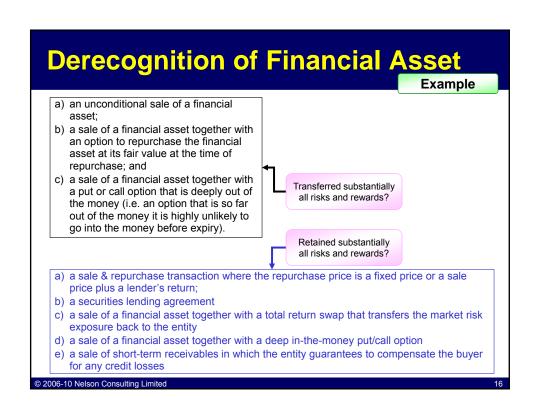
(i.e. the "risks and rewards test", and the "control test")

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### **Derecognition of Financial Asset**

 By applying the risks and rewards test together with the control test on a derecognition transaction:

Findings of risks & rewards test and control test	Corresponding accounting treatments		
Transfers substantially all the risks and rewards of ownership	Transfer qualified for derecognition		
	<ul> <li>To derecognise the financial asset</li> </ul>		
	• To recognise separately as assets/liabilities any rights & obligations created/retained in the transfer		
Retains substantially all the risks and rewards of ownership	Transfer not qualified for derecognition		
	<ul> <li>To continue to recognise the financial asset</li> </ul>		
<ol> <li>Neither transfers nor retains substantially all the risks and rewards of ownership and not retained control</li> </ol>	Transfer qualified for derecognition		
	<ul> <li>To derecognise the financial asset</li> </ul>		
	To recognise separately as assets/liabilities any rights & obligations created/retained in the transfer		
Neither transfers nor retains substantially all the risks and rewards of ownership but retained control	Continuing involvement		
	To continuously recognise the financial asset to the extent of its continuing involvement in the asset		
	<ul> <li>To recognise an associate liability</li> </ul>		

## **Derecognition of Financial Asset**

#### **Requirements for All Transfers**

- · If a transferred asset continues to be recognised,
  - the asset and the associated liability <u>cannot be</u> <u>offset</u>.
- Similarly, the entity is <u>not allowed to offset any</u> <u>income</u> arising from the transferred asset <u>with any</u> <u>expense</u> incurred on the associated liability.
- If a transferor provides non-cash collateral (such as debt or equity instruments) to the transferee,
  - the accounting for the collateral by the transferor and the transferee depends on whether the transferee has the right to sell or repledge the collateral and on whether the transferor has defaulted.

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## **Derecognition of Financial Liability**

- An entity is <u>required to remove a financial liability</u> (or a part of a financial liability) from its balance sheet (i.e. derecognise a financial liability) <u>when, and only when, it is extinguished</u>.
  - HKAS 39 explains that a financial liability is extinguished
    - when the obligation specified in the contract is <u>discharged or cancelled or expires</u>.
- A financial liability or part of it is <u>extinguished</u> when the debtor either:
  - 1. discharges the liability or part of it by paying the creditor, normally with cash, other financial assets, goods or services; or
  - 2. is legally released from primary responsibility for the liability (or part of it) either by process of law or by the creditor.



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## **Derecognition of Financial Liability**

- When there is <u>an exchange</u> between an existing borrower and lender of debt instruments with substantially different terms or a substantial modification of the terms of an existing financial liability or a part of it (whether or not attributable to the financial difficulty of the debtor),
  - such an exchange of debt instruments or substantial modification of terms is accounted for as:
    - · an extinguishment of the original financial liability and
    - the recognition of a new financial liability.



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## **Derecognition of Financial Liability**

- · The recognition of a new financial liability
  - implies that the new liability is <u>measured at fair value plus</u> <u>transaction costs at the date of extinguishment</u>.
- · The difference between
  - the <u>carrying amount</u> of a financial liability (or part of it) extinguished or transferred to another party and
  - the <u>consideration paid</u>, including any non-cash assets transferred or liabilities assumed,

is recognised in profit or loss.

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## Today's Agenda



Hedging

· Type of hedge and hedge accounting

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## **Hedging** – Introduction

A Hedge under HKAS 39 involves 2 components

Hedging Instrument

Hedged Item

- Strict conditions must be fulfilled before Hedge Accounting can be used.
- But even qualified, an entity can also choose not to use it, but .....

HKAS 39 sets out <u>Hedge Accounting</u> which recognises the offsetting effects on profit or loss of changes in the fair values of these 2 components.

<u>Hedge Accounting</u> seeks to match the 2 sides of a <u>Hedging Relationship</u>, so as

- · to ensure both sides are offset and
- · not to affect the income statements from one side only.



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## **Hedging – Introduction**

### Hedging Instrument

Hedged Item

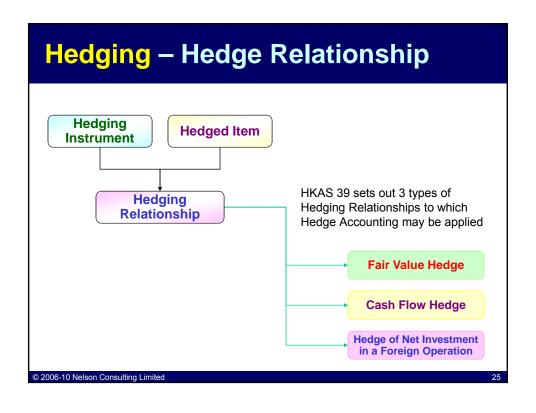


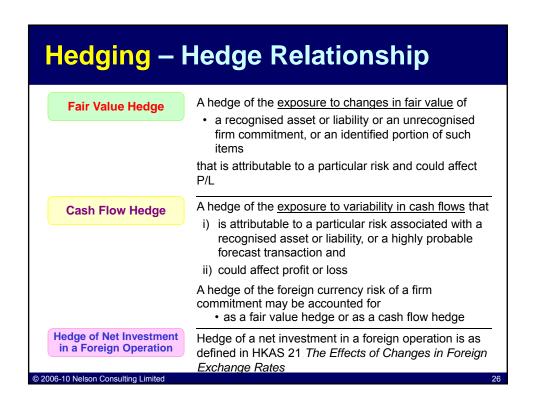
#### HKAS 39

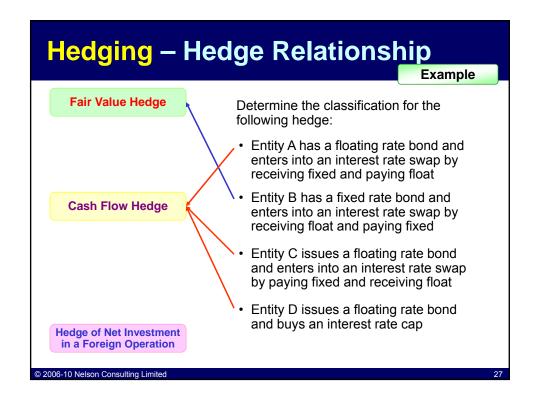
- defines and restricts the items qualified as
  - Hedging Instruments and
  - Hedged Items
- Sets out the types of <u>Hedge</u> <u>Relationship</u>
- Requires <u>Conditions for Hedging</u> <u>Accounting</u> must be fulfilled to qualify a hedge accounting
- · Sets out the Hedge Accounting

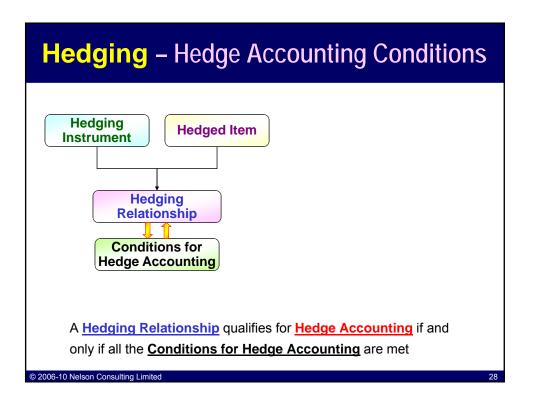
If there is a designated <u>Hedging Relationship</u>, accounting for gain or loss on the <u>Hedging Instruments</u> and <u>Hedged Item</u> shall follow <u>Hedge Accounting</u>.

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## **Hedging** – Hedge Accounting Conditions

#### All 5 Conditions for Hedge Accounting must be met:

Formal documentation at inception

Highly effective and consistent with originally documented risk

Forecasted transaction to be highly probable (for cash flow hedge)

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Conditions for Hedge Accounting

Hedge effectiveness can be reliably measured

Ongoing-assessed and actually highly effective

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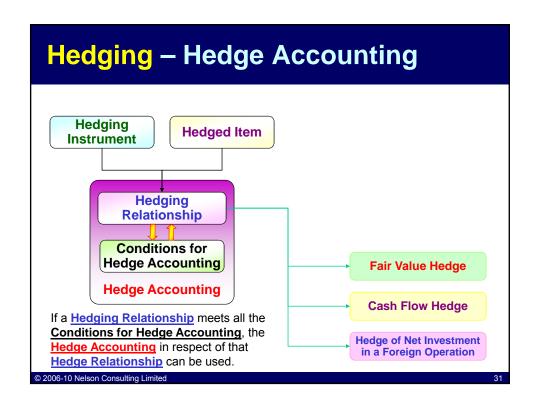
## **Hedging** – Hedge Accounting Conditions

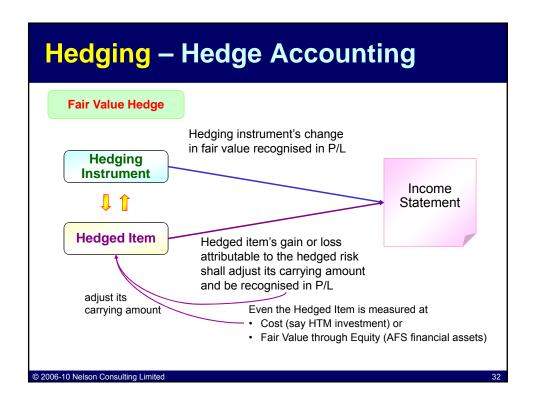
Formal documentation at inception

- At the <u>inception of the hedge</u>, there is <u>formal designation and</u> documentation of:
  - the hedging relationship and
  - the entity's <u>risk management objective</u> and <u>strategy</u> for undertaking the hedge.
- · That documentation shall include:
  - identification of the hedging instrument,
  - the hedged item or transaction,
  - the nature of the risk being hedged and
  - how the entity will assess
    - the hedging instrument's <u>effectiveness</u> in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk.

Hedge Effectiveness

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### **Hedging – Hedge Accounting**

**Example** 

#### Interest Rate Swap on A Fixed Rate Financial Asset

- · Company A purchases a bond that
  - has a principal amount of \$1 million at a fixed interest rate of 6% per year.
  - is classified as an available-for-sale financial asset.
  - has a fair value of \$1 million.
- The company enters into an interest rate swap.
  - It exchanges the fixed interest rate payments it receives on the bond for floating interest rate payments, in order to offset the risk of a decline in fair value
  - It designates and documents the swap as a hedging instrument.
  - The swap has a fair value of zero at the inception of hedge.
- Assuming
  - The market interest rates have increased to 7% and the fair value of the bond will have decreased to \$960,000.
  - The fair value of the swap has increased by \$40,000.

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## Hedging - Hedge Accounting

Example

- The instrument is classified as available-for-sale, therefore the decrease in fair value would normally be recorded directly in reserves.
- However, since the instrument is a Hedged Item in a Fair Value Hedge, this change in fair value of the instrument is recognised in profit or loss, as follows:

Dr Income statement \$40,000

Cr Available-for-sale financial asset \$40,000

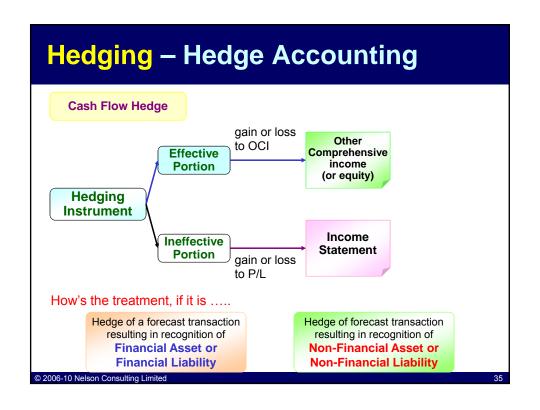
 While the swap is a derivative, it is measured at fair value with changes in fair value recognised in profit or loss.

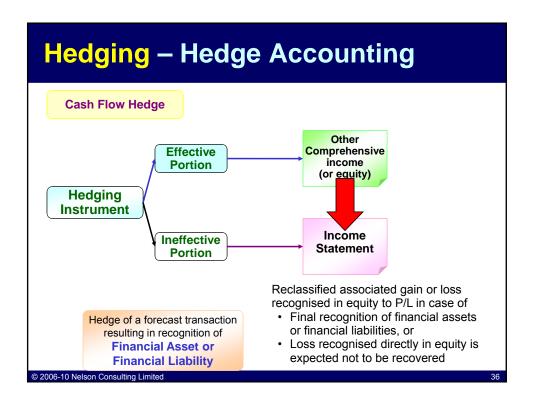
Dr Swap receivables \$40,000

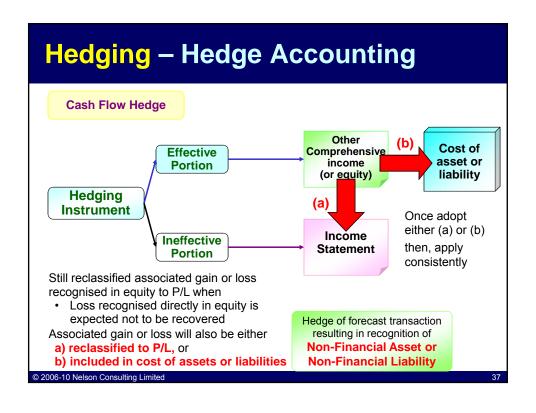
Cr Income statement \$40,000

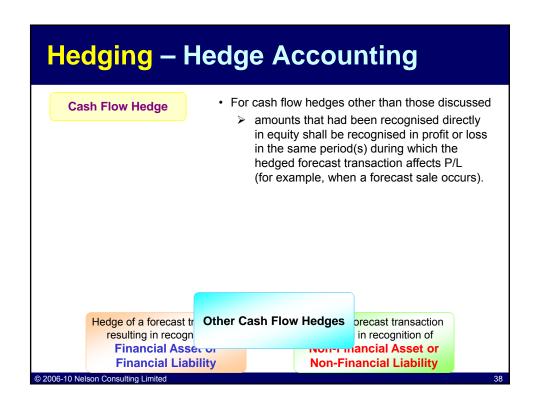
- The changes in fair value of the Hedged Item and the Hedging Instrument exactly offset each other:
  - the hedge is 100% effective and the net effect on profit or loss is zero.

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### **Hedging – Hedge Accounting**

Example

#### **Hedge of Forecast Transaction**

- · Entity A trades in UK mainly in UK Sterling.
  - It expects to purchase a machine for 1 million Euros in one year from 1 May
  - In order to offset the risk of increases in the Euro rate, Entity A enters into a forward contract to purchase 1 million Euros in 1 year for a fixed amount
  - The forward contract is designated as a Cash Flow Hedge.
  - At inception, the forward contract has a fair value of zero.
- At the year-end of 31 October 2006
  - the Euro has appreciated and the value of 1 million Euros is £660.000.
  - The fair value of the forward contract rises to £10,000.
  - The machine will still cost 1 million Euros so the company concludes that the hedge is 100% effective.

## Hedging - Hedge Accounting

**Example** 

- The entire change in the fair value of the hedging instrument is recognised directly in reserves.
  - Dr Forward contract £10.000

Cr Other comprehensive income £10.000 How to treat this amount finally?

- The forward contract is settled with no further change in the exchange rate:
  - Dr Cash £10,000

Cr Forward contract

£10,000

- The company purchases the machine for 1 million euros and makes the following journal entry:
  - £660.000 Dr Machine

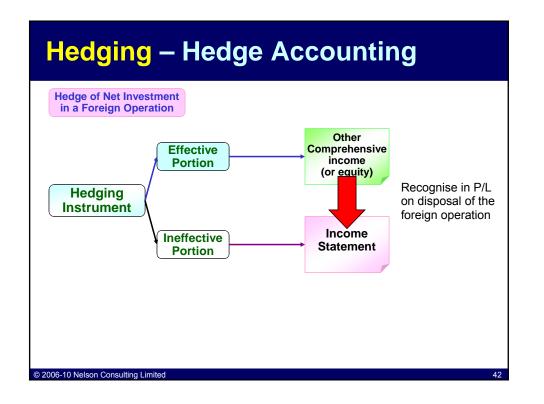
Cr Accounts Payable

£660,000

- The gain of £10,000 recognised in reserve (equity) should either
  - be reclassified from equity into P/L, or
  - be reclassified from equity and included in the initial carrying amount of the machine (for non-financial assets or liabilities only)
  - once this policy is chosen, it must be used consistently

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### **Hedging – Hedge Accounting** Including a hedge of a monetary item that is **Hedge of Net Investment** in a Foreign Operation accounted for as part of the net investment, shall be accounted for similarly to Cash Flow Hedges: **Effective** a) the portion of the gain or loss on the **Portion Hedging Instrument** that is determined to be an effective hedge shall be recognised Hedging directly in equity through the statement of Instrument changes in equity; and Ineffective b) the ineffective portion shall be recognised in profit or loss. **Portion** The gain or loss on the hedging instrument relating to the effective portion of the hedge that has been recognised directly in equity shall be recognised in profit or loss on disposal of the foreign operation.



### **Hedge** – Cease Hedge Accounting

An entity shall discontinue prospectively the **Hedge Accounting** if:

- a) the hedging instrument expires or is sold, terminated or exercised;
- b) the hedge no longer meets the **Conditions for Hedge Accounting**;
- c) the entity revokes the designation; or
- d) in case of a **Cash Flow Hedge**, the forecast transaction that is hedged is no longer expected to occur.

When the **Hedge Accounting** is discontinued (for **Cash Flow Hedge**), the cumulative gain or loss on the **Hedging Instrument** that remains recognised directly in equity shall:

- a) remain separately recognised in equity until the forecast transaction occurs; or
- b) be recognised in profit or loss if the forecast transaction is no longer expected to occur.

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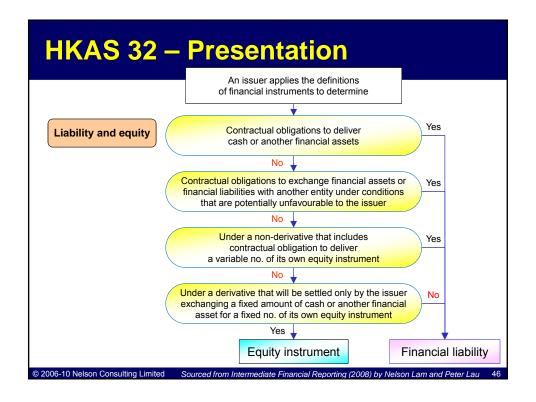
## Today's Agenda



Presentation (HKAS 32)  Presentation of financial instruments, incl. to separate financial liabilities from equity

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### **HKAS 32 – Presentation** Presentation from the perspective of the issuer on · The issuer of a financial instrument shall classify the Liability and equity instrument, or its component parts, on initial recognition as · a financial liability, Compound financial · a financial asset or instruments · an equity instrument in accordance with Treasury shares · the substance of the contractual arrangement and · the definitions of a financial liability, a financial asset Interests, dividends, and an equity instrument. (assess the substance) losses and gains Offsetting



### **HKAS 32 – Presentation**

#### Presentation from the perspective of the issuer on

Compound financial instruments

<u>Compound financial instrument</u> is an instrument containing both a liability and an equity component

- HKAS 32
  - applies only to <u>issuers</u> of non-derivative compound financial instruments and
  - does <u>not deal with</u> compound financial instruments from <u>the perspective of holders</u>.
- HKAS 39
  - deals with the separation of embedded derivatives from the perspective of holders of compound financial instruments that contain debt and equity features.

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### **HKAS 32 - Presentation**

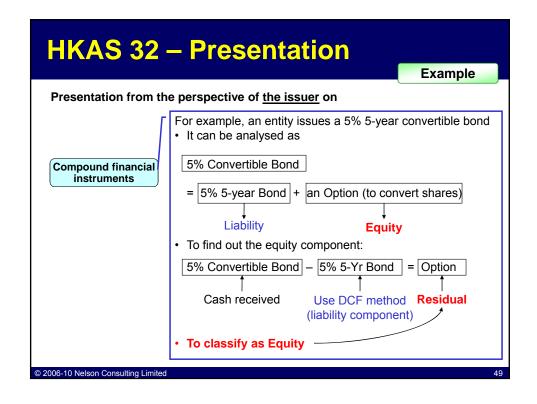
### Presentation from the perspective of the issuer on

Compound financial instruments

#### **Evaluation and Initial Classification**

- The issuer of a non-derivative financial instrument shall evaluate the terms of the financial instruments
  - to determine whether it <u>contains</u> both a <u>liability</u> and an <u>equity</u> component.
- Such components shall be <u>classified separately</u> as financial liabilities, financial assets or equity instrument in accordance with
  - the substance of the contractual arrangement and
  - the <u>definitions</u> of a financial liability, financial asset and an equity instrument.
- An entity <u>recognises separately</u> the components of a financial instrument that
  - a) creates a financial liability of the entity, and
  - b) grants an option to the holder of the instrument to convert it into an equity instrument of the entity.

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### **HKAS 32 - Presentation** Presentation from the perspective of the issuer on Treasury shares (an entity's own equity instruments reacquired by itself or its subsidiaries) · Those instruments shall be deducted from equity · Cannot be classified as an asset • No gain or loss shall be recognised in profit or loss on the purchase, sale, issue or cancellation of an entity's Treasury shares own equity instruments. · Such treasury shares may be acquired and held by the entity or by other members of the consolidated group. Consideration paid or received shall be recognised directly in equity. · The amount of treasury shares held is disclosed separately either on the face of the balance sheet or in the notes. © 2006-10 Nelson Consulting Limited

### **HKAS 32 - Presentation**

#### Presentation from the perspective of the issuer on

- Interest, dividends, losses and gains relating to a financial instrument or a component that is a financial liability
  - shall be recognised as <u>income or expense in profit or</u> loss.
- Distributions to holders of an equity instrument
  - shall be <u>debited by the entity directly to equity</u>, net of any related income tax benefit.
- <u>Transaction costs of an equity transaction</u>, other than costs of issuing an equity instrument that are directly attributable to the acquisition of a business,
  - <u>shall be accounted for as a deduction from equity</u>, net of any related income tax benefit.

Interests, dividends, losses and gains

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### **HKAS 32 – Presentation**

Case



Annual report of 2005 sets out that:

- Preference shares, which
  - · carry a mandatory coupon,
  - or are redeemable on a specific date
  - · or at the option of the shareholder,

are <u>classified</u> as <u>financial liabilities</u> and <u>are presented</u> <u>in other borrowed funds</u>.

- The dividends on these preference shares
  - are recognised in the income statement <u>as interest</u> <u>expense</u> on an amortised cost basis using the effective interest method.

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### **HKAS 32 - Presentation**

#### Presentation from the perspective of the issuer on

- Financial asset and a financial liability are offset and the net amount presented in the balance sheet when, and only when, an entity:
  - currently has <u>a legally enforceable right to set off</u> the recognised amounts; and
  - 2. intends either
    - · to settle on a net basis, or
    - <u>to realise the asset and settle the liability</u> simultaneously.
- In accounting for a transfer of a financial asset that does not qualify for derecognition,
  - the entity is not allowed to offset the transferred asset and the associated liability

Offsetting

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## Today's Agenda



Disclosure (HKFRS 7)  Disclosure of the significance and nature of risks arising from financial instruments

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### **HKFRS 7 – Introduction**

- The objective of HKFRS 7 is to require entities to provide disclosures in their financial statements that enable users to evaluate:
  - 1) the <u>significance of financial instruments</u> for the entity's
    - · financial position and
    - · financial performance; and
  - the <u>nature and extent of risks</u> arising from financial instruments to which the entity is <u>exposed</u>
    - · during the period and
    - · at the reporting date, and

how the entity manages those risks.

Significance

- Balance sheet
- · Income statement
- · Other disclosures

Nature and Extent

- Qualitative disclosures
- Quantitative disclosures

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## 1. Significance of Financial Instruments

- An entity shall <u>disclose information</u> that enables users of its financial statements to evaluate
  - the significance of financial instruments for its financial position and performance.

Significance

**Balance Sheet** 

Income Statement and Equity

Other Disclosures



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## 1. Significance of Financial Instruments

#### **Balance Sheet**

The <u>carrying amounts</u> of each of the following categories, as defined in HKAS 39, shall be disclosed either on the face of the balance sheet or in the notes:

- a) financial assets at fair value through P/L, showing separately
  - i) those designated as such upon initial recognition and
  - ii) those classified as held for trading in accordance with HKAS 39;
- b) held-to-maturity investments;
- c) loans and receivables;
- d) available-for-sale financial assets;
- e) financial liabilities at fair value through P/L, showing separately
  - i) those designated as such upon initial recognition and
  - ii) those classified as held for trading in accordance with HKAS 39; and
- f) financial liabilities measured at amortized cost.

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#### 1. Significance of Financial Instruments Financial assets at fair Availablevalue through profit or loss for-sale held for financial trading receivables RMB'000 RMB'000 RMB'000 RMB'000 Financial assets included in other assets (note 18) 80,000 80,000 Interests in associates (notes 22) 10,000 10,000 Interests in jointly-controlled entities (note 23) 19,128 19,128 Available-for-sale investments 462,178 462,178 Financial assets included in prepayments, deposits 321.664 321.664 and other receivables Trade receivables 293,870 293,870 Bills receivables 52,346 52,346 Equity investments at fair 102.439 102.439 value through profit or loss Derivative financial instruments 4.440 4.440 52.088 52.088 Pledged deposits Cash and cash equivalents 2,184,510 2,184,510 106,879 3,013,606 462,178 3,582,663 2006-10 Nelson Consulting Limited

## 1. Significance of Financial Instruments

- In March 2009, HKFRS 7 was amended to require the disclosure of the fair value hierarchy, which shall have the following levels:
  - a. <u>quoted prices (unadjusted)</u> in active markets for identical assets or liabilities (Level 1);
  - inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and
  - c. <u>inputs</u> for the asset or liability that are <u>not based on observable market data</u> (<u>unobservable inputs</u>) (Level 3).



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## 1. Significance of Financial Instruments

Case



	Va			
At 31 December 2008 (US\$m)	Quoted market price	Using observable inputs	With significant unobservable inputs	Total
<u>Assets</u>				
Trading assets	234,399	185,369	7,561	427,329
Financial assets designated at FV	14,590	13,483	460	28,533
Derivatives	8,495	476,498	9,883	494,876
Financial instruments: AFS	103,949	173,157	9,116	286,222
<u>Liabilities</u>				
Trading liabilities	105,584	135,559	6,509	247,652
Financial liabilities designated at FV	23,311	51,276	-	74,587
Derivatives	9,896	473,359	3,805	487,060

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## 1. Significance of Financial Instruments

- For fair value measurements recognised in the statement of financial position an entity shall disclose for each class of financial instruments:
  - 1. the level in the fair value hierarchy
  - 2. any significant transfers between Level 1 and Level 2 of the fair value hierarchy (with other details)
  - 3. Further details for Level 3.
- An entity shall present the quantitative disclosures as required above in tabular format unless another format is more appropriate.



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## 1. Significance of Financial Instruments

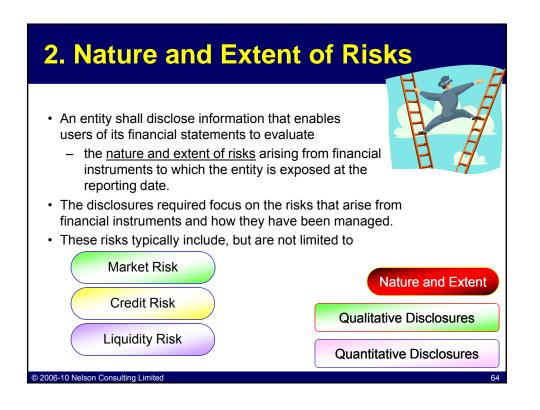
- Further details for Level 3:
  - total gains or losses for the period recognised in profit or loss, and a
    description of where they are presented in the statement of
    comprehensive income or the separate income statement (if presented)
  - 2. <u>total gains or losses</u> <u>recognised in other comprehensive income</u>
  - <u>purchases, sales, issues and settlements</u> (each type of movement disclosed separately)
  - transfers into or out of Level 3

     (e.g. transfers attributable to changes in the observability of market data) and the reasons for those transfers. (If significant, separate transfers into and out of Level 3)
  - the fact and the effect of changes (for the inputs to assumptions if their changes affect fair value significantly)



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### 2. Nature and Extent of Risks

- · The disclosures required focus on
  - the risks that arise from financial instruments and
  - how they have been managed.
- These risks typically include, but are not limited to, credit risk, liquidity risk and market risk.
- It implies that the disclosures requirements are required
  - not only on credit risk, liquidity risk and market risk
  - but also on other risks that may be identified by the entity for its financial instruments.

**Qualitative Disclosures** 

**Quantitative Disclosures** 

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### 2. Nature and Extent of Risks

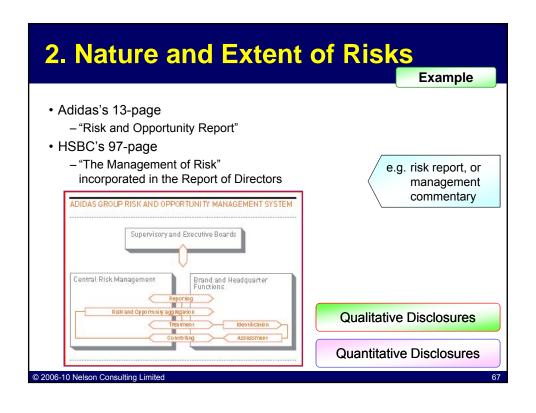
- The disclosures in respect of the nature and extent of risks arising from financial instruments can be either
  - 1. given in the financial statements or
  - incorporated <u>by cross-reference</u> from the financial statements <u>to some other statement</u>, that is available to users of the financial statements
- e.g. risk report, or management commentary
- · on the same terms as the financial statements and
- · at the same time.

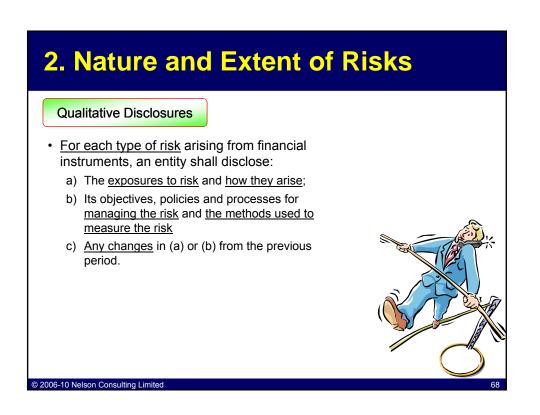
Without the information incorporated by cross-reference, the financial statements are incomplete. (HKFRS 7.BC46)

**Qualitative Disclosures** 

**Quantitative Disclosures** 

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### 2. Nature and Extent of Risks

#### **Quantitative Disclosures**

- For each type of risk arising from financial instruments, an entity shall disclose:
  - a. Summary quantitative data about its exposure to that risk at the reporting date.
    - The level of detail of such disclosure is based on the information provided internally to key management personnel of the entity (as defined in HKAS 24 Related Party Disclosures), for example the entity's board of directors or chief executive officer.
  - b. the disclosures required in quantitative disclosures, to the extent not provided in (a), unless the risk is not material (see HKAS 1.29-31).
  - c. concentrations of risk if not apparent from (a) and (b)



## 2. Nature and Extent of Risks

**Example** 

- Can an entity avoid disclosure of nature and extent of risk by
  - Unwinding a position of large exposure in a particular currency, or
  - Disposal of its large portfolio in equity instruments?
  - If the quantitative data disclosed as at the reporting date are unrepresentative of an entity's exposure to risk during the period, an entity is still required to provide further information that is representative.
  - When an entity typically has a large exposure to a particular currency or an equity investments, but at year-end unwinds the position,
    - the entity might disclose a graph that shows the exposure at various times during the period, or disclose the highest, lowest and average exposures during the period. (HKFRS 7.IG20)

### 2. Nature and Extent – Credit Risk

**Quantitative Disclosures** 

#### **Credit risk**

- An entity shall disclose by class of financial instrument:
  - a) the amount that best represents its <u>maximum exposure to</u> <u>credit risk</u> at the reporting date <u>without taking account of</u> <u>any collateral held</u> or other credit enhancements (e.g. netting agreements that do not qualify for offset in accordance with HKAS 32);
  - b) in respect of the amount disclosed in (a), a <u>description of collateral held</u> as security and other credit enhancements;
  - c) information about the <u>credit quality of financial assets</u> that are <u>neither past due nor impaired</u>; and
  - d) the <u>carrying amount of financial assets</u> that would otherwise be <u>past due or impaired whose terms have</u> been renegotiated.



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### 2. Nature and Extent - Past Due

**Quantitative Disclosures** 

#### Financial assets that are either past due or impaired

- · An entity shall disclose by class of financial asset:
  - a) an <u>analysis of the age</u> of financial assets that are <u>past</u> due as at the reporting date but not impaired;
  - an analysis of financial assets that are individually determined to be impaired as at the reporting date, including the factors the entity considered in determining that they are impaired; and
  - c) for the amounts disclosed in (a) and (b), <u>a description of collateral held by</u> the entity as security and other credit enhancements and, unless impracticable, an estimate of their fair value.



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### 2. Nature and Extent – Past Due

Case

Early adopted HKFRS 7 in 2005 and its annual report 2006 states that (extract only):



(iv) Financial assets that were past due but not impaired

As at 31 December, the age analysis of the trade receivables of the Group that were past due but not determined to be impaired according to the period past due was as follows:

	Grou	Group		
	2006 \$'000	2005 \$'000		
Up to 6 months Over 6 months to 1 year Over 1 year to 3 years *	186,359 - -	141,277 - 8,521		
Over 3 years *	8,651	142		
Total	195,010	149,940		

No provision for impairment losses has been made against trade receivables amounting to \$8,510,000 (2005: \$8,521,000) as the balances can be recovered from the Clearing House Funds.

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### 2. Nature and Extent - Collateral

**Quantitative Disclosures** 

#### Collateral and other credit enhancements obtained

- When an entity obtains financial or non-financial assets during the period by taking possession of collateral it holds as security or calling on other credit enhancements (eg guarantees), and such assets meet the recognition criteria in other Standards, an entity shall disclose:
  - a) the <u>nature and carrying amount of the assets</u> <u>obtained</u>; and
  - b) when the assets are not readily convertible into cash, its policies for disposing of such assets or for using them in its operations.

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## 2. Nature and Extent – Liquidity Risk

**Quantitative Disclosures** 

### **Liquidity risk**

- Before HKFRS 7, contractual maturity analysis together with effective interest rate analysis was required by HKAS 32 for interest rate risk disclosure.
- HKFRS 7 now requires, for liquidity risk disclosure, an entity to disclose:
  - a) a <u>maturity analysis for financial liabilities</u> that shows the remaining <u>contractual maturities</u>; and
  - b) a description of <u>how it manages</u> the liquidity risk inherent in (a).



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# 2. Nature and Extent – Liquidity Risk

Case

Early adopted HKFRS 7 in 2005 and its annual report 2006 states that (extract only):



 The financial liabilities of the Group and HKEx as at 31 Dec. 2006 are analysed into relevant maturity buckets based on their contractual maturity dates in the table below:

ic table below.	2006					
	Up to	>l month	>3 months	>l year	Not	
	1 month	to 3 months		,	determinable	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Current liabilities Margin deposits from Clearing Participants on derivatives						
contracts	21,666,474	-	-	-	-	21,666,474
Accounts payable, accruals and other liabilities Participants' admission fees	11,042,527	45,937	234	363	18,139	11,107,200
received	700	50	600	-	350	1,700
	32,709,701	45,987	834	363	18,489	32,775,374

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### 2. Nature and Extent - Market Risk

Quantitative Disclosures

#### **Market risk**

- HKFRS 7 requires the disclosures of sensitivity analysis.
- The disclosures of sensitivity analysis can be achieved by 2 approaches:
  - 1. Simple sensitivity analysis:
    - · sensitivity analysis for each type of market risk
  - 2. Interdependency sensitivity analysis:
    - Sensitivity analysis that reflects interdependencies between risks variables



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Sourced from Intermediate Financial Reporting (2008) by Nelson Lam and Peter Lau

## 2. Nature and Extent - Market Risk

**Quantitative Disclosures** 

#### **Market risk**

- is the risk that the <u>fair value</u> or <u>future cash flows</u> of a <u>financial instrument</u> will fluctuate because of <u>changes in market prices</u>
- comprises three types of risk:
  - currency risk,
  - interest rate risk and
  - other price risk.



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**Quantitative Disclosures** 

#### Market risk - Simple sensitivity analysis

- · An entity shall disclose:
  - a) a <u>sensitivity analysis for each type of market</u> <u>risk</u> to which the entity is exposed at the reporting date, showing:
    - how <u>profit or loss</u> and <u>equity</u> would have been <u>affected by changes in the</u> <u>relevant risk variable</u> that were <u>reasonably possible at that date</u>;
  - b) the <u>methods</u> and <u>assumptions</u> used in preparing the sensitivity analysis; and
  - c) changes from the previous period in the methods and assumptions used, and the reasons for such changes.

Assuming that a reasonably possible change in the relevant risk variable had occurred at the balance sheet date and had been applied to the risk exposures in existence at that date.



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## 2. Nature and Extent - Sensitivity

In order to disclose the simple sensitivity analysis, an entity should:

- 1. Decide how much detail it provides, how much emphasis it places and how it aggregates information to display
- 2. Identify <u>each type of market risk</u> to which the entity is exposed and <u>the relevant risk variable</u> at the reporting date
- 3. Judge the <u>reasonably possible changes</u> in the relevant risk variables at the reporting date
- 4. Calculate and show how profit or loss and equity would be affected at the reporting date

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In order to disclose the simple sensitivity analysis, an entity should:

 Decide how much detail it provides, how much emphasis it places and how it aggregates information to display

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## 2. Nature and Extent - Sensitivity

**Quantitative Disclosures** 

#### Market risk - Simple sensitivity analysis

- · For each type of market risk, an entity decides:
  - how it aggregates information to display the overall picture without combining information with different characteristics about exposures to risks from significantly different economic environments.
- · For example, an entity that trades financial instruments might disclose
  - Sensitivity analysis for each type of market risk separately for
    - · financial instruments held for trading and
    - · those not held for trading.
- If an entity has exposure to <u>only one type of market risk</u> in <u>only one economic environment</u>,
  - it would not show disaggregated information.

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In order to disclose the simple sensitivity analysis, an entity should:

- Decide how much detail it provides, how much emphasis it places and how it aggregates information to display
- 2. Identify <u>each type of market risk</u> to which the entity is exposed and <u>the relevant risk variable</u> at the reporting date

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# 2. Nature and Extent – Sensitivity

Market Risk

Interest Rate Risk

- Interest rate risk arises
  - on <u>interest-bearing</u> financial instruments recognised in the balance sheet (e.g. loans and receivables and debt instruments issued) and
  - on some financial instruments not recognised in the balance sheet (e.g. some loan commitments).

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Market Risk

Currency Risk

- Currency risk (or foreign exchange risk) arises on financial instruments that are denominated in a foreign currency, i.e. in a currency other than the functional currency in which they are measured.
  - For the purpose of HKFRS 7, currency risk does not arise from financial instruments that are nonmonetary items or from financial instruments denominated in the functional currency.
  - A sensitivity analysis is disclosed for each currency to which an entity has significant exposure.

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# 2. Nature and Extent - Sensitivity

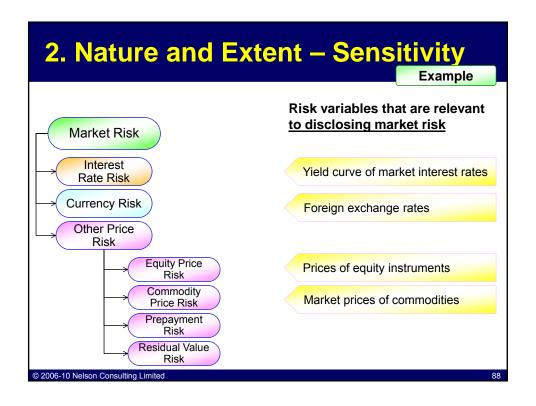
Market Risk

Other Price Risk

- Other price risk arises on financial instruments because of changes in, for example:
  - commodity prices or
  - equity prices.
- To comply with HKFRS 7, an entity might disclose the effect of a decrease in a specified variable, including:
  - stock market index,
  - commodity price, or
  - other risk variable.
- · For example,
  - if an entity gives residual value guarantees that are financial instruments, the entity discloses an increase or decrease in the value of the assets to which the guarantee applies.

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### 2. Nature and Extent – Sensitivity Example Examples of financial instruments that give rise to Market Risk equity price risk are a) a holding of equities in another entity and b) an investment in a trust that in turn holds investments in equity instruments. Other examples include - forward contracts and options to buy or sell Other Price specified quantities of an equity instrument and Risk swaps that are indexed to equity prices. • The fair values of such financial instruments are affected by changes in the market price of the underlying equity instruments.



In order to disclose the simple sensitivity analysis, an entity should:

- 1. Decide how much detail it provides, how much emphasis it places and how it aggregates information to display
- 2. Identify each type of market risk to which the entity is exposed and the relevant risk variable at the reporting date
- 3. Judge the <u>reasonably possible changes</u> in the relevant risk variables at the reporting date

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## 2. Nature and Extent - Sensitivity

**Quantitative Disclosures** 

### Market risk - Simple sensitivity analysis

- In determining what <u>a</u>
   reasonably possible change in the relevant risk variable is, an entity should consider:
  - a. the <u>economic environments</u> in which it operates.
  - b. the <u>time frame</u> over which it is making the assessment.
- A reasonably possible change should not include remote or "worst case" scenarios or "stress tests".
- Moreover, if the rate of change in the underlying risk variable is stable, the entity need not alter the chosen reasonably possible change in the risk variable.
- The sensitivity analysis shall show the effects of changes that are considered to be reasonably possible over the period until the entity will next present these disclosures, which is usually its next annual reporting period.

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Case

How can it be reasonably possible change?

Observed assessments by certain companies:

Entity name	<u>Currency</u>	Interest rate	Other price
BASF	10% (drop only)	1%	10%
BP plc	VaR	VaR	10%
CLP Holdings Ltd.	1%	0.5%	15% (2006: 5%)
DBS Group	10%	0.25%	10%
Deutsche Telecom	10%	1%	N/M
France Telecom	10%	1%	N/M
Jardine Matheson L	td. 10%	1%	25% (AFS)
Recruit	7 – 12%	N/M	N/M
Zijin Mining	10%	1%	N/M

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# 2. Nature and Extent – Sensitivity

In order to disclose the simple sensitivity analysis, an entity should:

- 1. Decide how much detail it provides, how much emphasis if places and how it aggregates information to display
- 2. Identify each type of market risk to which the entity is exposed and the relevant risk variable at the reporting date
- Judge the reasonably possible changes in the relevant risk variables at the reporting date
- 4. Calculate and show how profit or loss and equity would be affected at the reporting date

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- HKFRS 7 requires the sensitivity analysis to show the effect on profit or loss and equity of reasonably possible changes in the relevant risk variable. For this purpose:
  - 1. Entities are not required to determine what the profit or loss for the period would have been if relevant risk variables had been different.
    - Instead, entities <u>disclose the effect on profit or loss and equity at the balance sheet date</u> assuming that a reasonably possible change in the relevant risk variable had occurred at the balance sheet date and had been applied to the risk exposures in existence at that date.
  - Entities are not required to disclose the effect on profit or loss and equity for each change within a range of reasonably possible changes of the relevant risk variable.
    - Disclosure of the effects of the changes <u>at the limits (i.e. the upper and lower limits)</u> of the reasonably possible range would be sufficient.

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## 2. Nature and Extent - Sensitivity

Example

Market Risk

- HKFRS 7 requires separate disclosure on
  - the sensitivity of profit or loss
     (that arises, for example, from instruments classified as at fair value through profit or loss and impairments of available-for-sale financial assets) is disclosed separately from
  - the sensitivity of equity
     (that arises, for example, from instruments classified as available for sale).
- Financial instruments that an entity classifies as equity instruments are not remeasured.
  - Neither profit or loss nor equity will be affected by the equity price risk of those instruments.
  - Accordingly, no sensitivity analysis is required.

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Example

# Example of financial assets and liabilities

Risk variables that are relevant to disclosing market risk

 Investment in bonds, bank deposits, interest-bearing borrowings, bank loans

Yield curve of market interest rates

- For interest rate risk, the sensitivity analysis might <u>show separately</u> the effect of a change in market interest rates on:
  - a) interest income and expense;
  - b) other line items of profit or loss (such as trading gains and losses); and
  - c) when applicable, equity.
- An entity might disclose a sensitivity analysis for interest rate risk for each currency in which the entity has material exposures to interest rate risk.

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## 2. Nature and Extent – Sensitivity

**Quantitative Disclosures** 

#### Market risk - Interdependency Sensitivity Analysis

- An entity can alternatively prepare and disclose <u>a sensitivity analysis</u>, such as <u>Value-at-Risk (VaR)</u>, that <u>reflects interdependencies between risk variables</u> (e.g. interest rates and exchange rates) <u>so long as it uses such sensitivity analysis to manage financial risks</u>.
- · The entity shall also disclose:
  - a) an <u>explanation of the method</u> used in preparing such a sensitivity analysis, and of the <u>main parameters and assumptions</u> underlying the data provided; and
  - b) an <u>explanation of the objective of the method used</u> and <u>of limitations</u> that may result in the information not fully reflecting the fair value of the assets and liabilities involved.

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**Quantitative Disclosures** 

### Market risk - Interdependency Sensitivity Analysis

- An entity might comply the VaR methodology by disclosing
  - the <u>type of VaR model used</u> (eg whether the model relies on Monte Carlo simulations),
  - an explanation about how the model works and
  - the main assumptions (eg the holding period and confidence level).
- Entities might also disclose
  - the <u>historical observation period</u> and <u>weightings</u> applied to observations within that period,
  - an explanation of how options are dealt with in the calculations, and
  - which <u>volatilities and correlations</u> (or, alternatively, Monte Carlo probability distribution simulations) are used.

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## 2. Nature and Extent – Sensitivity

Case



#### Royal Dutch Shell plc for 2007

- Shell uses risk management systems for recording and valuing instruments.
- There is regular review of mandated trading limits by senior management, daily
  monitoring of market risk exposure using <u>value-at-risk (VAR) techniques</u> (see below),
  daily monitoring of trading positions against limits and marking-to-market of trading
  exposures with a department independent of traders reviewing the market values
  applied to trading exposures.
- Shell's exposure to substantial trading losses is therefore considered limited.
- Shell utilises VAR techniques based on <u>variance/covariance</u> or <u>Monte Carlo simulation</u> models and make a statistical assessment of the market risk arising from possible future changes in market values <u>over a 24-hour period</u> and <u>within a 95% confidence level</u>.
- The calculation of the range of potential changes in fair value takes into account positions, the history of price movements and the correlation of these price movements.
- Each of the models is regularly back tested against actual fair value movements to ensure model integrity is maintained.

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