

HKAS 32 & 39 and HKFRS 7 – Part Two

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Today's Agenda

*Anyone who says they understand IAS 39
has not read it*

Professor Sir David Tweedie
Chairman of IASB

Derivatives

Derecognition

Hedging

FI: Presentation

FI: Disclosure

Part Two

- Derivatives and Embedded Derivatives (HKAS 39)
- Derecognition (HKAS 39)
- Hedging (HKAS 39)
- Financial Instruments: Presentation (HKAS 32)
- Financial Instruments: Disclosure (HKFRS 7)

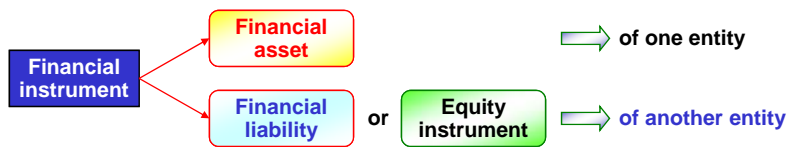
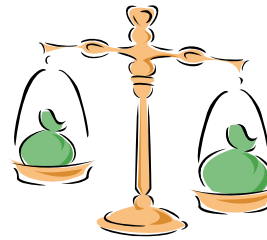
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Today's Agenda

Derivatives

Part Two



Derivatives

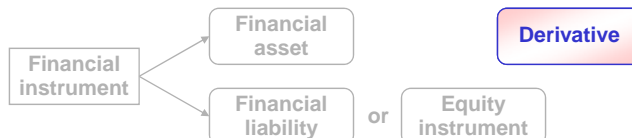
Derivative ⇒ is a financial instrument or other contract within the scope of HKAS 39 with all 3 of the following characteristics:

Value change based on an underlying

Little or no initial net investment

Settled at a future date

- its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable (sometimes called the 'underlying');
- it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- it is settled at a future date.



Derivatives

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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Derivatives

Example

2 Non-Derivative Transactions

- Entity A makes a 5-year fixed rate loan to Entity B
- Entity B at the same time makes a 5-year variable rate loan for the same amount to Entity A.
- There are no transfers of principal at inception of the 2 loans, since A and B have a netting agreement
- Is this a derivative under HKAS 39?

Value change based on an underlying ✓

Little or no initial net investment ✓

Settled at a future date ✓

Yes, it meets the definition of a derivative.

- The contractual effect of the loans is the equivalent of an interest rate swap arrangement with no initial net investment.

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Derivatives

Example

Value change based on an underlying

Little or no initial net investment

Settled at a future date

- Non-derivative transactions are aggregated and treated as a derivative when the transactions result, in substance, in a derivative.
- Indicators of this would include:
 - They are entered into at the same time and in contemplation of one another
 - They have the same counterparty
 - They relate to the same risk
 - There is no apparent economic need or substantive business purpose for structuring the transactions separately that could not also have been accomplished in a single transaction
- The same answer would apply if Entity A and Entity B did not have a netting agreement, because the definition of a derivative instrument in HKAS 39 does not require net settlement

Derivatives

Example

Value change based on an underlying ✓

Little or no initial net investment ✗

Settled at a future date ✓

Prepaid forward

- An entity enters into a forward contract to purchase shares of stock in 1 year at the forward price.
- It prepays at inception based on the current price of the shares.
- Is the forward contract a derivative?

No.

- The forward contract fails the “little or no initial net investment” test for a derivative.

Derivatives – Measurement

Derivative

- What is the initial measurement and subsequent measurement on derivative?

Initial measurement

- Similar to other financial assets and liabilities
 - **Fair value** 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

Derivatives – Measurement

Case

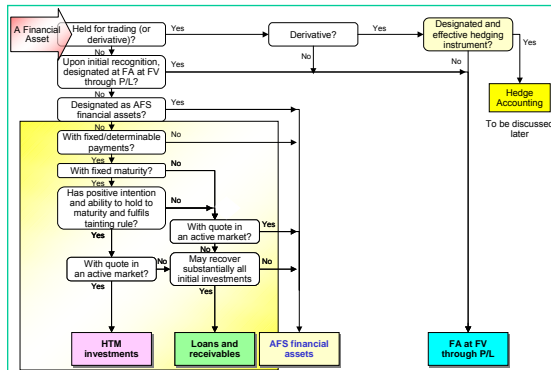
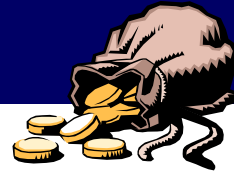
Derivative financial instruments (2006 Annual Report)



- Derivative financial instruments (“derivatives”) are initially recognised at fair value and carried
 - as assets when the fair value is positive and
 - as liabilities when the fair value is negative.
- In the normal course of business, the fair value of a derivative on initial recognition is considered to be the transaction price (i.e. the fair value of the consideration given or received).
- However, in certain circumstances the fair value of an instrument will be
 - evidenced by comparison with other observable current market transactions in the same instrument (i.e. without modification or repackaging) or
 - based on a valuation technique whose variables include only data from observable markets, including interest rate yield curves, option volatilities and currency rates.

Dr	Asset
Cr	Cash
Dr	Cash
Cr	Liabilities

Embedded Derivatives

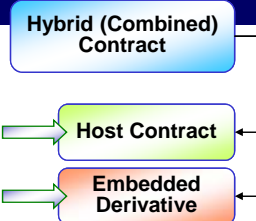


Will derivative elements in the financial assets affect the classification?

Embedded Derivatives

HKAS 39 introduce **Embedded Derivative**

- it is a component of a hybrid (combined) instrument that also include a non-derivative host contract
 - with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative



- An **embedded derivative** causes some or all of the cash flows that otherwise would be required by the contract
 - to be modified according to a variable,
 - say specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable.

- A **derivative** that **Remember what derivative is?**
 - 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.

Embedded Derivatives

Example

- Investments in convertible bonds (with equity conversion feature)
- Equity-indexed interest or principal payments embedded in a host debt instrument (equity-linked interest or principal payments)
- An option or automatic provision to extend the remaining term to maturity of a debt instrument
- A call, put, surrender or prepayment option embedded in a host debt instrument
- Equity kicker
- Equity-linked notes
- Equity call and put options
- Inflation-indexed lease payments
- Contingent rentals
- More **but so?**

Host Contract

Embedded Derivative

Embedded Derivatives

HKAS 39 requires an embedded derivative

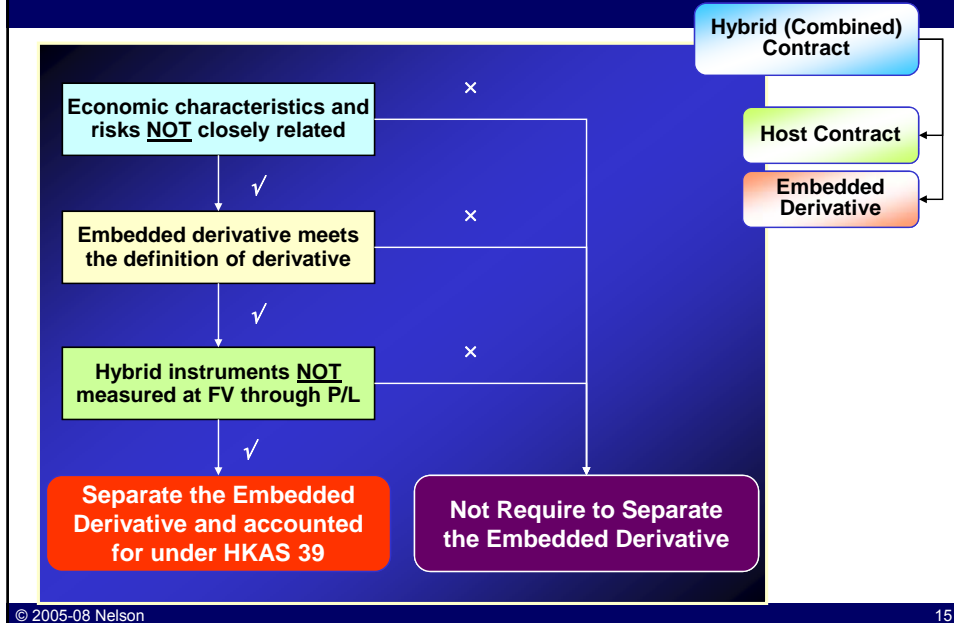
- shall be separated from the host contract and
- accounted for as a derivative under HKAS 39 if, and only if:
 - a. the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract
 - b. a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
 - c. the hybrid (combined) instrument is not measured at fair value with changes in fair value recognised in profit or loss

Hybrid (Combined) Contract

Host Contract

Embedded Derivative

Embedded Derivatives



Embedded Derivatives

Economic characteristics and risks NOT closely related

To assess economic characteristics and risks

- Guarantee Fund?
- Alternatively, should we name it as bond with index-linked interest?

- If a host contract
 - has no stated or predetermined maturity and
 - represents a residual interest in the net assets of an entity
 - then its economic characteristics and risks are those of an equity instrument, and
 - an embedded derivative would need to possess equity characteristics related to the same entity to be regarded as closely related.
- If the host contract
 - is not an equity instrument and
 - meets the definition of a financial instrument
 - then its economic characteristics and risks are those of a debt instrument.

Embedded Derivatives

If separation is required and can be measured

- ⇒ Host Contract shall be accounted for under applicable HKFRS
- ⇒ Embedded Derivative shall be accounted under HKAS 39 as a derivative

If separation is required but cannot be measured

- ⇒ Entire Hybrid (Combined) Contract is classified as financial instrument that is held for trading

If separation is not required

- ⇒ Hybrid (combined) contract shall be accounted for under applicable HKFRS

Separate the Embedded Derivative and accounted for under HKAS 39

Not Require to Separate the Embedded Derivative

Embedded Derivatives

Example

Index-linked Principal

- Entity A purchases a 5-year equity-index-linked note with an original issue price of \$10 at a market price of \$12 at the time of purchase.
- The note requires no interest payments before maturity.
- At maturity, the note requires
 - Payment of the original issue price of \$10
 - Plus a supplemental redemption amount that depends on whether
 - a specified share price index > a predetermined level at the maturity date.
 - If the share index < or = the predetermined level
 - the supplemental redemption amount is zero
 - If the share index > the predetermined level
 - the supplemental redemption amount equal a factor of level of the share index at maturity
- Entity A has the positive intention and ability to hold the note to maturity.
- Can Entity A classify the note as a held-to-maturity investment?

Embedded Derivatives

Example

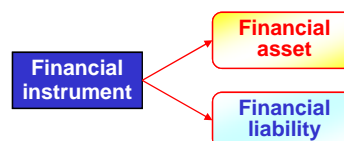
Index-linked Principal

Yes, subject to the separation of embedded derivative.

- The note can be classified as a HTM investment because
 - it has a fixed payment of \$10 and fixed maturity and
 - Entity A has the positive intention and ability to hold it to maturity.
- However, the equity index feature is a call option not closely related to the debt host, which must be separated as an embedded derivative.
- The purchase price of \$12 is allocated between
 - the host debt instrument and
 - the embedded derivative
- For example
 - if the fair value of the embedded option at acquisition is \$4
 - the host debt instrument is measured at \$8 on initial recognition
 - Then, the discount of \$2 that is implicit in the host bond (principal of \$10 minus the original carrying amount of \$8) is amortised to profit or loss over the term to maturity of the note using the effective interest method.

Today's Agenda

Derecognition



Derecognition of Financial Assets

An entity shall derecognise a **financial asset** when, and only when:

- a) the contractual rights to the cash flows from the financial asset expire; or
- b) it transfers the financial asset, and the transfer qualifies for derecognition



Direct derecognition

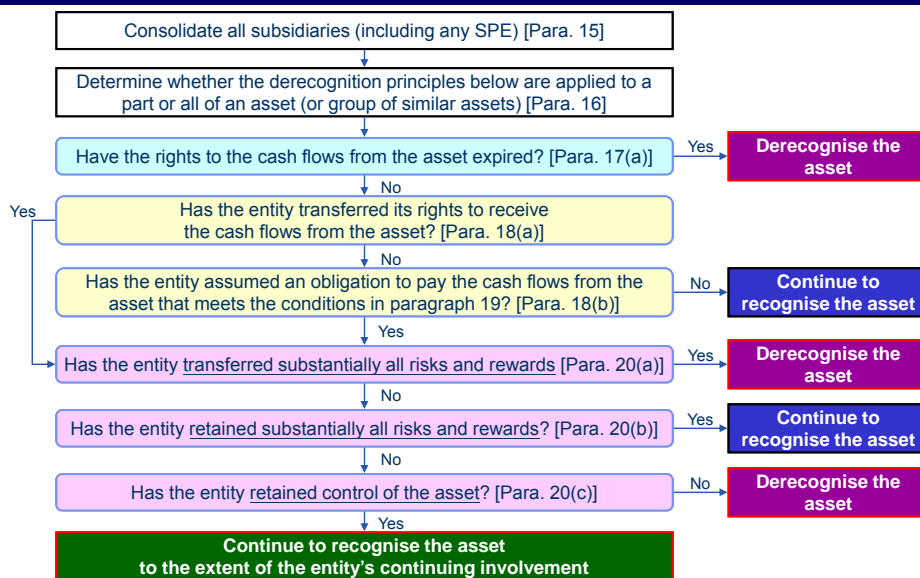
Further Test 1:
Asset Transfer Test

Further Test 2:
Risk and Reward Test

General principles

- If passing both Further Tests ⇒ derecognise the asset
- If not passing Asset Transfer Test ⇒ not derecognise the asset
- If passing the Asset Transfer Test, but not passing Risk and Reward test ⇒ consider the entity's control over the asset, and extent of continuing involvement

Derecognition of Financial Assets



Derecognition of Financial Assets

Example

- a) an unconditional sale of a financial asset;
- b) a sale of a financial asset together with an option to repurchase the financial asset at its fair value at the time of repurchase; and
- c) a sale of a financial asset together with a put or call option that is deeply out of the money (i.e. an option that is so far out of the money it is highly unlikely to go into the money before expiry).

- a) a sale & repurchase transaction where the repurchase price is a fixed price or a sale price plus a lender's return;
- b) a securities lending agreement
- c) a sale of a financial asset together with a total return swap that transfers the market risk exposure back to the entity
- d) a sale of a financial asset together with a deep in-the-money put/call option
- e) a sale of short-term receivables in which the entity guarantees to compensate the buyer for any credit losses

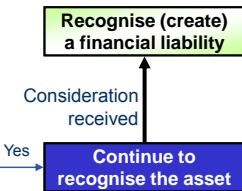
Has the entity transferred substantially all risks and rewards [Para. 20(a)]

Has the entity retained substantially all risks and rewards? [Para. 20(b)]

Derecognition of Financial Assets

- If a transfer does not result in derecognition because the entity has retained substantially all the risks and rewards of ownership of the transferred asset, the entity shall
 - continue to recognise the transferred asset in its entirety
 - recognise a financial liability for the consideration received
 - in subsequent periods, recognise
 - any income on the transferred asset and
 - any expense incurred on the financial liability.

Has the entity retained substantially all risks and rewards? [Para. 20(b)]

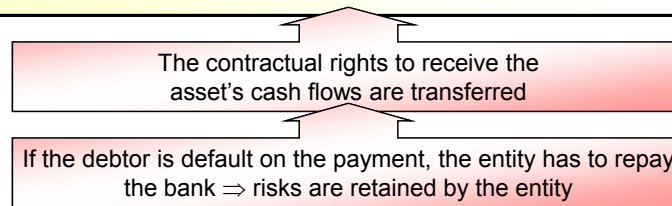


Derecognition of Financial Assets

Example

For SMEs/SMPs ⇒ say Discounted Bills, Factored Trade Receivables
 For larger entities ⇒ say Strip and Total return swap

Let's analyse a bill discounted to bank
 ⇒ At present, most entities derecognise bill receivable discounted to bank and disclose it as contingent liability
 ⇒ Is it appropriate under new derecognition criteria?



Continue to recognise the bill receivables, and recognise a financial liability

Derecognition of Financial Assets

Case

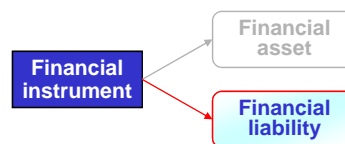


- In its 2005 Interim Report, full set of HKFRS was adopted and the report set out that:
 - the Group's discounted bills with recourse,
 - which were previously treated as contingent liabilities,
 - have been accounted for as collateralized bank advances prospectively on or after 1 January 2005,
 - as the financial asset derecognition conditions as stipulated in HKAS 39 have not been fulfilled.

Total advances recognised:	HK\$ 822M
Current liabilities of that date:	7,578M
Net current assets of that date:	1,229M

Derecognition of Financial Liability

- An entity shall derecognise a financial liability (or part of a financial liability) when, and only when, it is extinguished i.e. obligation discharged or cancelled or expires
- An exchange between an existing borrower and lender of debt instruments with substantially different terms shall be accounted for as
 - an extinguishment of the original financial liability and
 - the recognition of a **NEW** financial liability.
- Similar accounting treatment is adopted for a substantial modification of the terms of an existing financial liability or a part of it
- The difference between
 - the carrying amount of a financial liability extinguished or transferred to another party and
 - the consideration paid, including any non-cash assets transferred or liabilities assumedshall be recognised in profit or loss.



Today's Agenda

Part Two

Hedging



Hedging – Introduction

A Hedge under HKAS 39 involves 2 components

Hedging Instrument

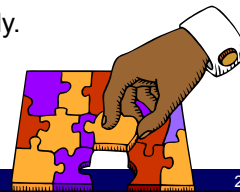
Hedged Item

- 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 **Hedge Accounting** which recognises the offsetting effects on profit or loss of changes in the fair values of these 2 components.

Hedge Accounting seeks to match the 2 sides of a **Hedging Relationship**, so as

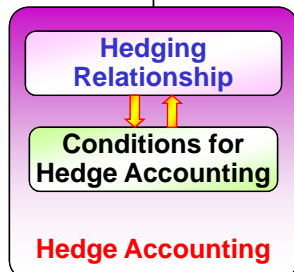
- to ensure both sides are offset and
- not to affect the income statements from one side only.



Hedging – Introduction

Hedging Instrument

Hedged Item

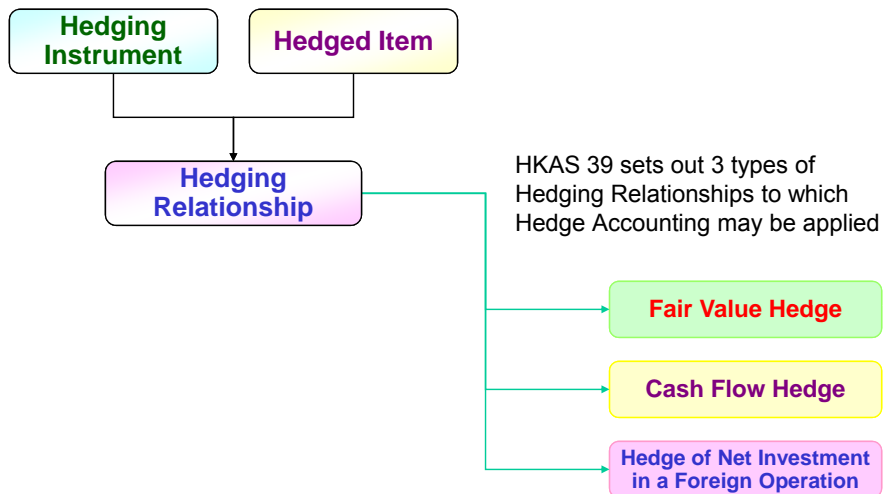


HKAS 39

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

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

Hedging – Hedge Relationship



Hedging – Hedge Relationship

Fair Value Hedge

A hedge of the exposure to changes in fair value of

- a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such items

that is attributable to a particular risk and could affect P/L

Cash Flow Hedge

A hedge of the exposure to variability in cash flows that

- is attributable to a particular risk associated with a recognised asset or liability, or a highly probable forecast transaction and
- could affect profit or loss

A hedge of the foreign currency risk of a firm commitment may be accounted for

- as a fair value hedge or as a cash flow hedge

Hedge of Net Investment in a Foreign Operation

Hedge of a net investment in a foreign operation is as defined in HKAS 21 *The Effects of Changes in Foreign Exchange Rates*

Hedging – Hedge Relationship

Example

Fair Value Hedge

Cash Flow Hedge

Hedge of Net Investment in a Foreign Operation

Determine the classification for the following hedge:

- Entity A has a floating rate bond and enters into an interest rate swap by receiving fixed and paying float
- Entity B has a fixed rate bond and enters into an interest rate swap by receiving float and paying fixed
- Entity C issues a floating rate bond and enters into an interest rate swap by paying fixed and receiving float
- Entity D issues a floating rate bond and buys an interest rate cap

Hedging – Hedge Relationship

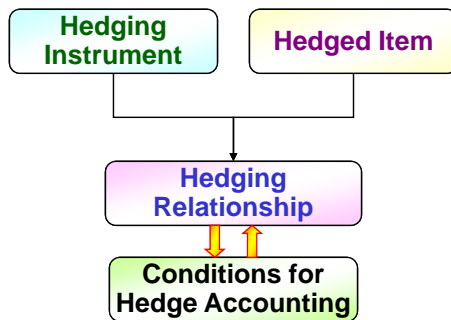
Case



Derivatives and Hedging (Annual Report 2006)

- When derivatives are designated as hedges, HSBC classifies them as either:
 - i) hedges of the change in fair value of recognised assets or liabilities or firm commitments ('fair value hedges');
 - ii) hedges of the variability in highly probable future cash flows attributable to a recognised asset or liability, or a forecast transaction ('cash flow hedges'); or
 - iii) hedges of net investments in a foreign operation ('net investment hedges').
- Hedge accounting is applied to derivatives designated as hedging instruments in a fair value, cash flow or net investment hedge provided certain criteria are met.

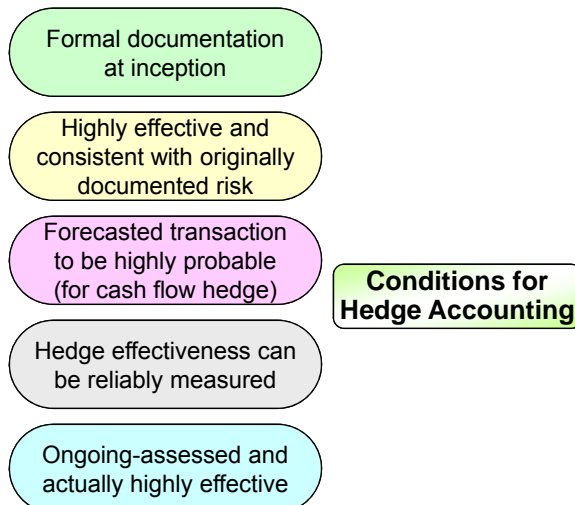
Hedging – Hedge Accounting Conditions



A **Hedging Relationship** qualifies for **Hedge Accounting** if and only if all the **Conditions for Hedge Accounting** are met

Hedging – Hedge Accounting Conditions

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



Hedging – Hedge Accounting Conditions

Formal documentation at inception

- At the inception of the hedge, there is formal designation and documentation of:
 - the hedging relationship and
 - the entity's risk management objective and strategy 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 effectiveness 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 Conditions

Measurable and highly effective hedge from the beginning to the end

Highly effective and consistent with originally documented risk

The hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, consistently with the originally documented risk management strategy for that particular hedging relationship.

Hedge effectiveness can be reliably measured

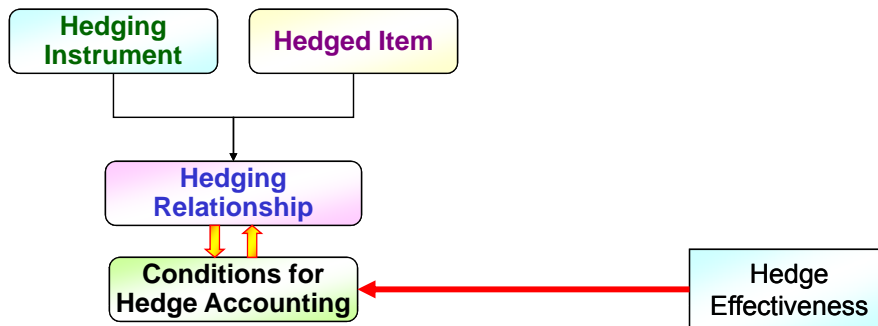
The effectiveness of the hedge can be reliably measured, i.e. the fair value or cash flows of the hedged item that are attributable to the hedged risk and the fair value of the hedging instrument can be reliably measured.

Ongoing-assessed and actually highly effective

The hedge is assessed on an ongoing basis and determined actually to have been highly effective throughout the financial reporting periods for which the hedge was designated.

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Hedging – Assess Hedge Effectiveness



- **Hedge effectiveness** is the degree to which
 - changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk
 - are offset by changes in the fair value or cash flows of the hedging instrument.

Hedging – Assess Hedge Effectiveness

A hedge is regarded as **highly effective** only if both of the following conditions are met:

- Inception and Ongoing**
Prospective testing
- a) At the inception of the hedge and in subsequent periods
- the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated.
- Actual results**
Retrospective testing
- b) The actual results of the hedge are within a range of 80% – 125%.
- Effectiveness is assessed, at a minimum, at the time an entity prepares its
- annual financial statements or
 - interim financial statements.

Hedging – Assess Hedge Effectiveness

- The actual hedge effectiveness measurement may be based on either:
 - A period by period basis, or
 - A cumulative basis
- Such basis should be established in the hedge documentation and properly followed afterward.
- If a cumulative basis is used, hedge accounting will not be ceased even the hedge is not effective for a particular period.

Actual results

b) The actual results of the hedge are within a range of 80% – 125%.

Retrospective testing

Hedging Instrument

→ Gain is \$125

Hedged Item

→ Loss is \$100

- The degree of offset can be measured by either
 - $\$125 \div \100 , which is 125%, or
 - $\$100 \div \125 , which is 80%

within 80% to 125% range

Hedging – Assess Hedge Effectiveness

Case

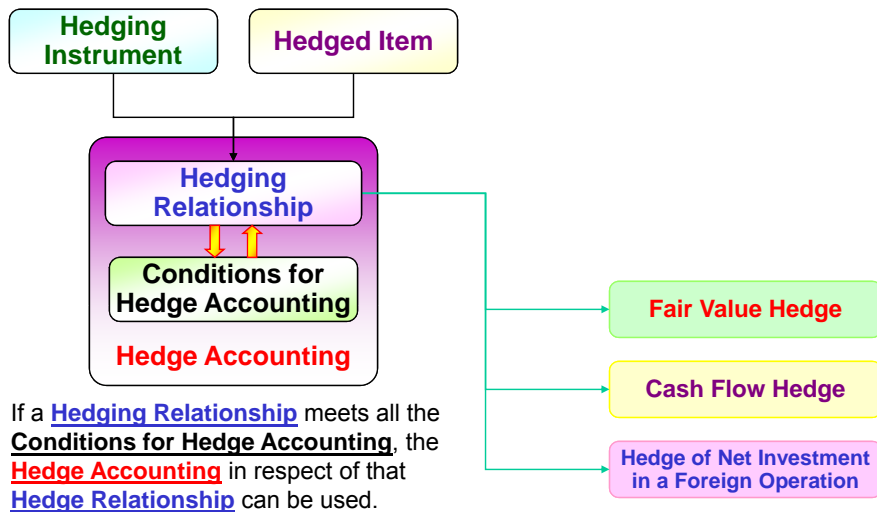
HSBC 

Hedge Accounting (Annual Report 2006)

- At the inception of a hedging relationship, HSBC documents
 - the relationship between the hedging instruments and the hedged items,
 - its risk management objective and
 - its strategy for undertaking the hedge.
- HSBC also requires a documented assessment, both
 - at hedge inception and
 - on an ongoing basis,

of whether or not the hedging instruments, primarily derivatives, that are used in hedging transactions are highly effective in offsetting the changes attributable to the hedged risks in the fair values or cash flows of the hedged items.
- Interest on designated qualifying hedges is included in 'Net interest income'.

Hedging – Hedge Accounting



Hedging – Hedge Accounting

Fair Value Hedge

⇒ Meets the **Condition for Hedging Accounting**, then:

Hedging Instrument

Hedged Item

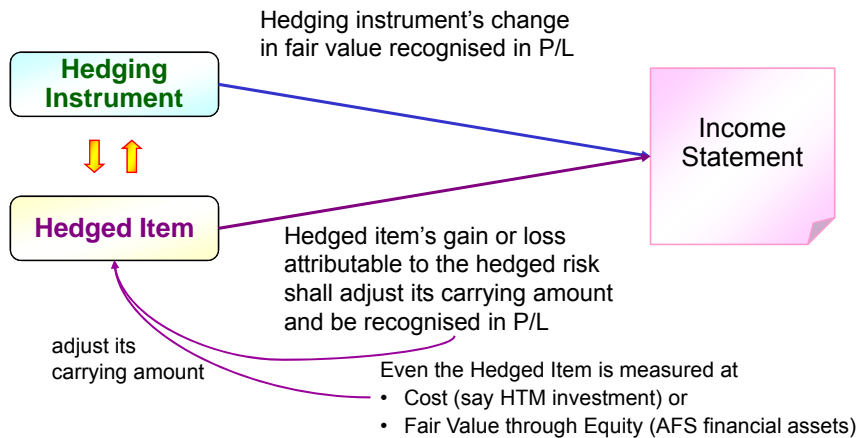
- a) the gain or loss from re-measuring the **Hedging Instrument** at fair value (for a derivative hedging instrument) or the foreign currency component of its carrying amount measured in accordance with HKAS 21 (for a non-derivative hedging instrument)
 - shall be recognised in profit or loss
- b) the gain or loss on the **Hedged Item** attributable to the hedged risk
 - shall adjust the carrying amount of the **Hedged Item** and be recognised in profit or loss.

This applies if the hedged item is otherwise measured at cost.

Recognition of the gain or loss attributable to the hedged risk in P/L applies if the hedged item is an available-for-sale financial asset.

Hedging – Hedge Accounting

Fair Value Hedge



Hedging – Hedge Accounting

Example

Hedge of Inventory

- Can Entity A designate its inventories, say copper, as the hedged item in a Fair Value Hedge of the exposure to changes in the copper price?
 - However, inventories are measured at the lower of cost and net realisable value under HKAS 2 *Inventories*.

Yes.

- The inventories may be hedged for changes in fair value due to changes in the copper price.
- Because the change in fair value of inventories will affect profit or loss when the inventories are sold or their carrying amount is written down.
- The adjusted carrying amount becomes the cost basis for the purpose of applying the lower of cost and net realisable value test under HKAS 2.
- The Hedging Instrument used in a Fair Value Hedge of inventories may alternatively qualify as a Cash Flow Hedge of the future sale of the inventory.

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.

Hedging – Hedge Accounting

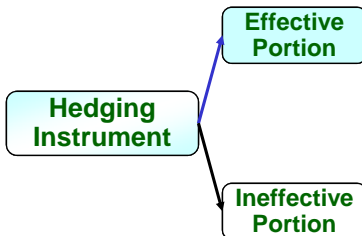
Example

- 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.

Hedging – Hedge Accounting

Cash Flow Hedge

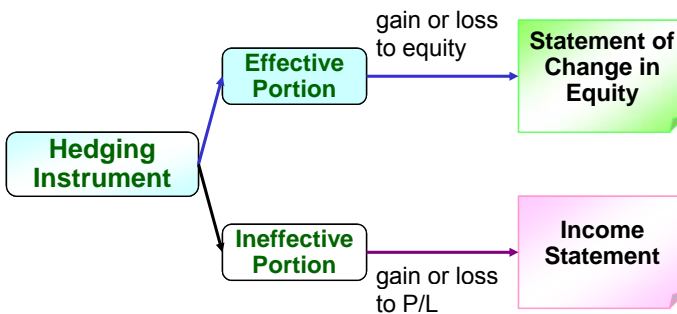
⇒ Meets the **Condition for Hedging Accounting**, then:



- a) the portion of the gain or loss on the **Hedging Instrument** that is determined to be an **effective hedge** shall be **recognised directly in equity** through the statement of changes in equity; and
- b) the **ineffective portion** of the gain or loss on the **Hedging Instrument** shall be **recognised in profit or loss**.

Hedging – Hedge Accounting

Cash Flow Hedge



How's the treatment, if it is

Hedge of a forecast transaction resulting in recognition of **Financial Asset or Financial Liability**

Hedge of forecast transaction resulting in recognition of **Non-Financial Asset or Non-Financial Liability**

Hedging – Hedge Accounting

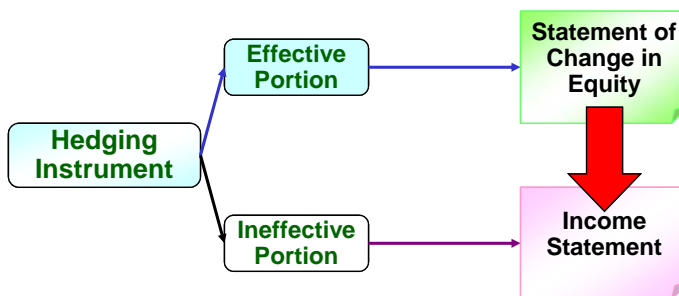
Cash Flow Hedge

- If a **Hedge of a Forecast Transaction** subsequently results in the recognition of **a financial asset or a financial liability**
 - the associated gains or losses that were recognised directly in equity shall be reclassified into profit or loss in the same period(s) during which the asset acquired or liability assumed affects profit or loss (such as in the periods that interest income or interest expense is recognised)
- If any loss recognised directly in equity is expected not to be recovered in one or more future periods
 - it shall reclassify such loss into profit or loss.

Hedge of a forecast transaction resulting in recognition of **Financial Asset or Financial Liability**

Hedging – Hedge Accounting

Cash Flow Hedge



Hedge of a forecast transaction resulting in recognition of **Financial Asset or Financial Liability**

- Reclassified associated gain or loss recognised in equity to P/L in case of
- Final recognition of financial assets or financial liabilities, or
 - Loss recognised directly in equity is expected not to be recovered

Hedging – Hedge Accounting

Cash Flow Hedge

- If a **Hedge of a Forecast Transaction** subsequently results in
 - the recognition of a non-financial asset or a non-financial liability, or
 - a forecast transaction for such non-financial item becomes a firm commitment for which fair value hedge accounting is applied
- Then an entity shall adopt (a) or (b) below:

a) Reclassifies the associated gains and losses recognised in equity into P/L in the same period(s) during which the asset acquired or liability assumed affects P/L (such as in the periods that depreciation expense or cost of sales is recognised).
If any loss recognised directly in equity is expected not to be recovered in one or more future periods, it shall reclassify into P/L such loss.

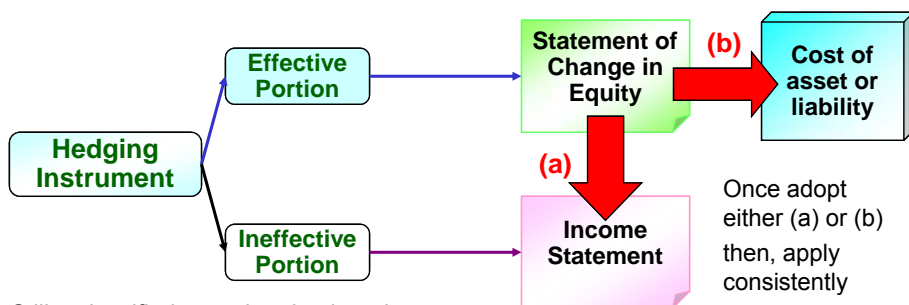
b) Removes the associated gains and losses recognised directly in equity, and includes them in the initial cost or other carrying amount of the asset or liability.

Once adopt either (a) or (b), apply consistently

Hedge of forecast transaction resulting in recognition of **Non-Financial Asset or Non-Financial Liability**

Hedging – Hedge Accounting

Cash Flow Hedge



Still reclassified associated gain or loss recognised in equity to P/L when

- Loss recognised directly in equity is expected not to be recovered

Associated gain or loss will also be either

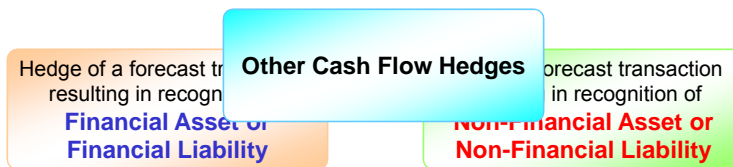
a) reclassified to P/L, or
b) included in cost of assets or liabilities

Hedge of forecast transaction resulting in recognition of **Non-Financial Asset or Non-Financial Liability**

Hedging – Hedge Accounting

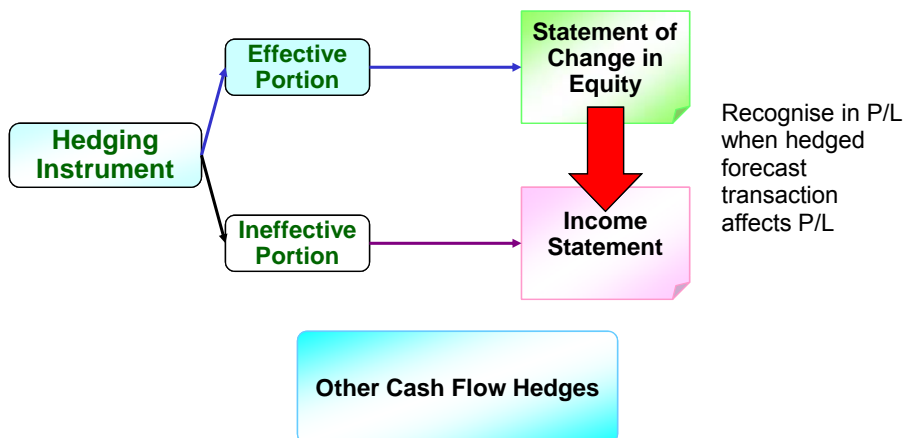
Cash Flow Hedge

- For cash flow hedges other than those discussed
 - amounts that had been recognised directly in equity shall be recognised in profit or loss in the same period(s) during which the hedged forecast transaction affects P/L (for example, when a forecast sale occurs).



Hedging – Hedge Accounting

Cash Flow Hedge



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 2006.
 - 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 (£650,000).
 - 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 Reserves		£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:

Dr Machine	£660,000
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

Hedging – Hedge Accounting

Case

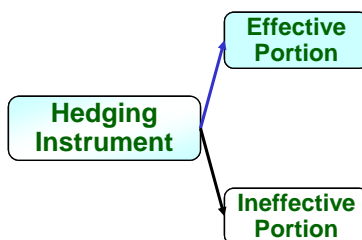


Cash Flow Hedges (2006 Annual Report)

- The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges are recognised in equity.
- Any gain or loss relating to an ineffective portion is recognised immediately in the income statement within “Trading income”.
- For cash flow hedges of a recognised asset or liability, the associated cumulative gain or loss is recycled from equity and recognised in the income statement in the same periods during which the hedged cash flow affect profit and loss.
- When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity until the forecast transaction is ultimately recognised in the income statement.
- When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

Hedging – Hedge Accounting

Hedge of Net Investment in a Foreign Operation



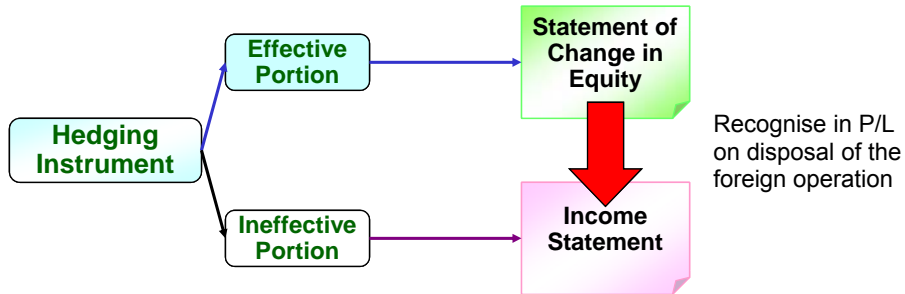
Including a hedge of a monetary item that is accounted for as part of the net investment, shall be accounted for similarly to **Cash Flow Hedges**:

- a) the portion of the gain or loss on the **Hedging Instrument** that is determined to be an **effective hedge** shall be **recognised directly in equity** through the statement of changes in equity; and
- b) the **ineffective portion** shall be **recognised in profit or loss**.

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.

Hedging – Hedge Accounting

Hedge of Net Investment
in a Foreign Operation



Hedging – Cease Hedge Accounting

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

- the hedging instrument expires or is sold, terminated or exercised;
- the hedge no longer meets the **Conditions for Hedge Accounting**;
- the entity revokes the designation; or
- 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:

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

Today's Agenda

Part Two

FI: Presentation



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Presentation and Disclosure

HKAS 32 *Financial Instruments: Disclosure and Presentation*

- Aims at enhancing financial statement users' understanding of
 - the significance of financial instruments to an entity's financial position, performance and cash flows.
- Contains requirements for the presentation of financial instruments and identifies the information that should be disclosed about them.

From
1.1.2007

HKAS 32 Financial Instruments: Presentation

- Aims at establishing principles
 - for presenting financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities.

HKFRS 7 Financial Instruments: Disclosures

- Aims at providing disclosures to evaluate the significance of financial instruments and the nature and extent of risks arising from financial instruments

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HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

Treasury shares

Interests, dividends, losses and gains

- The issuer of a financial instrument shall classify the instrument, or its component parts, on initial recognition as
 - a financial liability,
 - a financial asset or
 - an equity instrumentin accordance with
 - the substance of the contractual arrangement and
 - the definitions of a financial liability, a financial asset and an equity instrument. (*assess the substance*)

HKAS 32 – Presentation

Case



Annual report of 2005 sets out that it has probably had the following shares:

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

How do you classify and present the above items?

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Contractual obligation, including one arising from a derivative, that will or may result in the future receipt or delivery of the issuer's own equity instruments, but does not meet conditions (a) and (b) above, is not an equity instrument.

- An instrument can be an equity instrument if, and only if, both conditions (a) and (b) below are met.
 - a) The instrument includes no contractual obligation:
 - i) to deliver cash or another financial asset; or
 - ii) to exchange financial instrument under conditions that are potentially unfavourable to the issuer.
 - b) If the instrument will or may be settled in the issuer's own equity instruments, it is:
 - i) a non-derivative that includes no contractual obligation to deliver a variable no. of its own equity instruments; or
 - ii) a derivative that will be settled only by the issuer exchanging a fixed amount of cash or another financial asset for a fixed number of its own equity instruments.

HKAS 32 – Presentation

Example

Presentation from the perspective of the issuer on

Liability and equity

- Are the following financial liabilities or equity instruments?

- A contract to deliver as many of the entity's own equity instruments as are equal in value to \$10,000. ➤ **Financial liability**
- A contract to deliver as many of the entity's own equity instruments as are equal in value to the value of 100 ounces of gold. ➤ **Financial liability**

- Such a contract is a financial liability of the entity even though the entity must or can settle it by delivering its own equity instruments.
- It is not an equity instrument because the entity uses a variable number of its own equity instruments as a means to settle the contract.

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

Compound financial instrument is an instrument containing both a liability and an equity component

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

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

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 contains both a liability and an equity component.
- Such components shall be classified separately as financial liabilities, financial assets or equity instrument in accordance with
 - the substance of the contractual arrangement and
 - the definitions of a financial liability, financial asset and an equity instrument.
- An entity recognises separately 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.



HKAS 32 – Presentation

Example

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments



- For example, a convertible bond allows the bondholder to convert it into a fixed no. of ordinary shares of the entity
 - is a compound financial instrument.
- From the perspective of the entity, such an instrument comprises two components:
 - 1) **a financial liability** – a contractual arrangement to deliver cash or another financial asset), and
 - 2) **an equity instrument** – a call option granting the holder the right, for a specified period of time, to convert it into a fixed no. of ordinary shares of the entity.
- The economic effect of issuing such an instrument is substantially the same as issuing a debt instrument with detachable share purchase warrants.
- In all cases, the entity presents the liability and equity components separately on its balance sheet.

HKAS 32 – Presentation

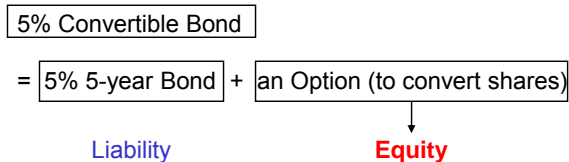
Example

Presentation from the perspective of the issuer on

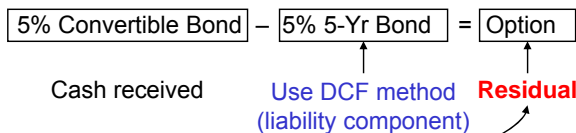
Liability and equity

Compound financial instruments

- For example, an entity issues a 5% 5-year convertible bond
- It can be analysed as



- To find out the equity component:



- **To classify as Equity**

HKAS 32 – Presentation

Example

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

- An entity issues 2,000 convertible bonds at the start of year 1.
- The bonds have a 3-year term, and are issued at par with a face value of \$1,000 per bond, giving total proceeds of \$2,000,000.
- Interest is payable annually in arrears at a nominal annual interest rate of 6%.
- Each bond is convertible at any time up to maturity into 250 ordinary shares.
- When the bonds are issued, the prevailing market interest rate for similar debt without conversion options is 9%.
- Discuss and calculate in accordance with HKAS 32.

HKAS 32 – Presentation

Example

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

- The liability component is measured first, and the difference between the proceeds of the bond issue and the fair value of the liability is assigned to the equity component.
- The present value of the liability component is calculated using a discount rate of 9%, the market interest rate for similar bonds having no conversion rights.

Present value of the principal	
\$2,000,000 payable at the end of three years	\$ 1,544,367
Present value of the interest	
\$120,000 payable annually in arrears for three years	<u>303,755</u>
Total liability component	\$ 1,848,122
Equity component (by deduction)	<u>151,878</u>
Proceeds of the bond issue	\$ 2,000,000

HKAS 32 – Presentation

Example

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

How does an issuer recognise a callable convertible bond?

- Assume that the proceeds received on the issue of a callable convertible bond are \$60.
- The value of a similar bond without a call or equity conversion option is \$57.
- Based on an option pricing model, it is determined that the value to the entity of the embedded call feature in a similar bond without an equity conversion option is \$2.

- In this case, the value allocated to the liability component is \$55 (\$57 – \$2).
- Then, the value allocated to the equity component is \$5 (\$60 – \$55).
- The journal entry is as follows:

Dr	Cash	60	
Cr	Liabilities		55
	Equity		5

2 components:

- Liability component, plus
- Derivative feature embedded other than the equity component (i.e. the call feature)

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

Treasury shares

- 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 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.

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

Treasury shares

Interests, dividends, losses and gains

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

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 classified as financial liabilities and are presented in other borrowed funds.
- The dividends on these preference shares
 - are recognised in the income statement as interest expense on an amortised cost basis using the effective interest method.

HKAS 32 – Presentation

Presentation from the perspective of the issuer on

Liability and equity

Compound financial instruments

Treasury shares

Interests, dividends, losses and gains

Offsetting

Financial assets and financial liabilities are offset when and only when

- 1) there is a legally enforceable right to set off, and
- 2) the entity intends to settle on a net basis

Today's Agenda

Part Two



FI: Disclosure

Disclosure Amended by HKFRS 7

- The objective of HKFRS 7 is to require entities to provide disclosures in their financial statements that enable users to evaluate:

1) the significance of financial instruments for the entity's

- financial position and
- financial performance; and

Significance

- Balance sheet
- Income statement
- Other disclosures

2) the nature and extent of risks arising from financial instruments to which the entity is exposed

- during the period and
- at the reporting date, and

how the entity manages those risks.

Nature and Extent

- Qualitative disclosures
- Quantitative disclosures

Disclosure Amended by HKFRS 7

- HKFRS 7 supersedes (from 1 Jan. 2007)
 - Full HKAS 30
 - Para. 51 to 95 of HKAS 32

- As compared with HKAS 30 and 32, HKFRS 7 has the following attributes:

1. Apply to all entities while HKAS 30 applies to financial institution only
2. Is more correlation with the categories of financial instruments as defined in HKAS 39
3. Aim at simplifying the disclosure requirements of HKAS 32 on risks but introduced some new disclosures
4. HKAS 32 has exemption for comparative on first year of adoption but HKFRS 7 only provides exemption on the nature and extent of risks.

Significance

Nature and Extent

1. Significance of Financial Instruments

Significance

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

Balance Sheet

Income Statement

Other Disclosures

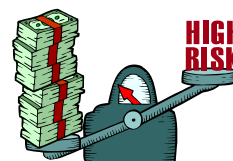


2. Nature and Extent of Risks

Nature and Extent

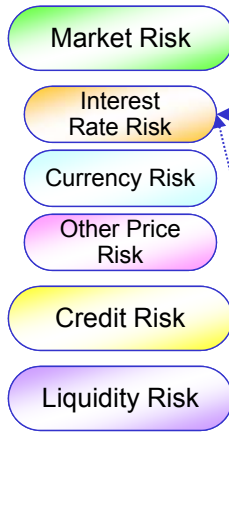
- An entity shall disclose information that enables users of its financial statements to evaluate
 - the nature and extent of risks arising from financial instruments to which the entity is exposed at the reporting date.
- The disclosures required focus on the risks that arise from financial instruments and how they have been managed.
- These risks typically include, but are not limited to
 - credit risk,
 - liquidity risk and
 - market risk.

Currency risk, interest rate risk and other price risk

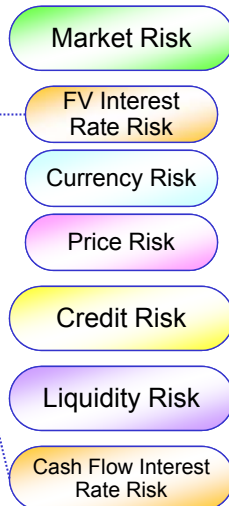


2. Nature and Extent of Risks

In HKFRS 7



In HKAS 32



Qualitative Disclosures

Quantitative Disclosures

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2. Nature and Extent of Risks

Qualitative Disclosures

- For each type of risk arising from financial instruments, an entity shall disclose:
 - a) The exposures to risk and how they arise;
 - b) Its objectives, policies and processes for managing the risk and the methods used to measure the risk
 - c) Any changes in (a) or (b) from the previous period.



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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)



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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 maximum exposure to credit risk at the reporting date without taking account of any collateral held 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 description of collateral held as security and other credit enhancements;
 - c) information about the credit quality of financial assets that are neither past due nor impaired; and
 - d) the carrying amount of financial assets that would otherwise be past due or impaired whose terms have been renegotiated.



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2. Nature and Extent – Credit Risk

Case

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



- Exposure to credit risk - as at 31 Dec., the financial assets and financial liabilities of the Group and HKEx that were exposed to credit risk and their maximum exposure were as follows:

	Group		Group	
	2006	2006	2005 (As restated)	2005 (As restated)
	Carrying amount in balance sheet \$'000	Maximum exposure to credit risk \$'000	Carrying amount in balance sheet \$'000	Maximum exposure to credit risk \$'000
Financial assets				
Clearing House Funds:				
Available-for-sale financial assets	317,212	317,212	224,137	224,137
Time deposits with original maturities over three months	-	-	30,290	30,290
Cash and cash equivalents	1,957,229	1,957,229	1,091,233	1,091,233
Compensation Fund Reserve Account:				
Available-for-sale financial assets	42,990	42,990	18,488	18,488
Cash and cash equivalents	8,653	8,653	30,240	30,240
Time deposit with maturity over one year	38,886	38,886	38,768	38,768
Other financial assets	18,583	18,583	17,162	17,162

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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 analysis of the age of financial assets that are past due as at the reporting date but not impaired;
 - b) 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), a description of collateral held by 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:

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

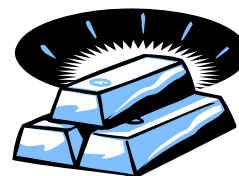
* No provision for impairment losses has been made against trade receivables amounting to \$8,510,000 (2005: \$8,521,000) as the balances can be recovered from the Clearing House Funds.

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 nature and carrying amount of the assets obtained; 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.



2. Nature and Extent – Liquidity Risk

Quantitative Disclosures

Liquidity risk

- An entity shall disclose:
 - a maturity analysis for financial liabilities that shows the remaining contractual maturities; and
 - a description of how it manages the liquidity risk inherent in (a).



- The amounts disclosed in the maturity analysis are the contractual undiscounted cash flows, say gross finance lease obligation
- Such undiscounted cash flows differ from the amount included in the balance sheet because the balance sheet amount is based on discounted cash flows.

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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:

	Group					Total
	2006					
	Up to 1 month \$'000	>1 month to 3 months \$'000	>3 months to 1 year \$'000	>1 year to 5 years \$'000	Not determinable \$'000	
Current liabilities						
Margin deposits from Clearing Participants on derivatives contracts	21,666,474	-	-	-	-	21,666,474
Accounts payable, accruals and other liabilities	11,042,527	45,937	234	363	18,139	11,107,200
Participants' admission fees 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

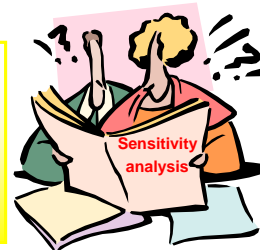
Quantitative Disclosures

Market risk

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

Market risk

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



2. Nature and Extent – Sensitivity

Quantitative Disclosures

Market risk – Sensitivity Analysis for Each Type of Market Risk

- An entity shall disclose:
 - a) a sensitivity analysis for each type of market risk to which the entity is exposed at the reporting date, showing:
 - how profit or loss and equity would have been affected by changes in the relevant risk variable that were reasonably possible at that date;
 - b) the methods and assumptions 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.



2. Nature and Extent – Sensitivity

Quantitative Disclosures

Market risk – Sensitivity Analysis for Each Type of Market Risk

- In determining what a reasonably possible change in the relevant risk variable is, an entity should consider:
 - a. the economic environments in which it operates.
 - b. the time frame 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.

2. Nature and Extent – Sensitivity

Example



2. Nature and Extent – Sensitivity

Example

Example of financial assets and liabilities

- Investment in bonds, bank deposits, interest-bearing borrowings, bank loans
- Trade receivables and payables in foreign currency, foreign loans
- Investments in equity securities and equity funds, equity-linked investments
- Investments in commodity funds and commodity-linked investments

Risk variables that are relevant to disclosing market risk

Yield curve of market interest rates

Foreign exchange rates

Prices of equity instruments

Market prices of commodities

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2. Nature and Extent – Sensitivity

Example

Example of financial assets and liabilities

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

Risk variables that are relevant to disclosing market risk

Yield curve of market interest rates

- For interest rate risk, the sensitivity analysis might show separately 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

Example

Identify

- the items that sensitivity analysis is required and
- the relevant risk variables?

<u>Sample Inc.</u>	<u>2007</u>	<u>2006</u>
Fixed assets – PPE	\$ 15,000	\$ 12,000
Investments in 5% bond	5,000	4,500
Investments in equity securities	5,000	4,000
Trade and other receivables	10,000	9,000
Fixed deposits	1,000	800
Cash at bank	1,800	2,200
Trade and other payables	(3,000)	(2,500)
Bank loans and overdrafts	<u>(4,800)</u>	<u>(3,000)</u>
	<u>30,000</u>	<u>27,000</u>
Issued equity	\$ 10,000	\$ 10,000
Retained earnings	<u>20,000</u>	<u>17,000</u>
	<u>30,000</u>	<u>27,000</u>

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2. Nature and Extent – Sensitivity

Example

Interest rate risk

- At 31 Dec. 20X2, if interest rates at that date had been 10 basis points lower with all other variables held constant,
 - post-tax profit for the year would have been \$1.7 million (20X1: \$2.4 million) higher, arising mainly as a result of lower interest expense on variable borrowings, and
 - other components of equity would have been \$2.8 million (20X1: \$3.2 million) higher, arising mainly as a result of an increase in the fair value of fixed rate financial assets classified as available for sale.
- If interest rates had been 10 basis points higher, with all other variables held constant,
 - post-tax profit would have been \$1.5 million (20X1: \$2.1 million) lower, arising mainly as a result of higher interest expense on variable borrowings, and
 - other components of equity would have been \$3.0 million (20X1: \$3.4 million) lower, arising mainly as a result of a decrease in the fair value of fixed rate financial assets classified as available for sale.

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2. Nature and Extent – Sensitivity

Quantitative Disclosures

Market risk – Sensitivity Analysis That Reflects Interdependencies Between Risks Variables

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

2. Nature and Extent – Sensitivity

Quantitative Disclosures

- Common approaches in estimating **Value at Risk (VaR)**
 - Variance-covariance approach
 - Same theoretical basis as portfolio theory and more straightforward
 - Weaknesses: not good at returns with non-linear or non-normal elements, say options
 - Historical simulation
 - Uses historical data to re-produce the distribution of return and no normality assumption
 - Weaknesses: depending on actual data observed
 - Monte Carlo simulation
 - Estimated from a simulated distribution, powerful and be able to handle any type of position
 - Weaknesses: difficult to implement and time-consuming



2. Nature and Extent – Sensitivity

Case

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



- Risk management techniques, such as Value-at-Risk (“VaR”) based on historical simulation and portfolio stress testing, are used to identify, measure and control foreign exchange risk, equity price risk and interest rate risks of the Group’s investments.
- VaR measures
 - the expected maximum loss
 - over a given time interval (a holding period of 10 trading days is used by the Group)
 - at a given confidence level (95 per cent confidence interval is adopted by the Group)
 - based on historical data (one year is used by the Group).
- The Board sets a limit on total VaR of the Group and VaR is monitored on a weekly basis

How would you determine them?

2. Nature and Extent – Sensitivity

Case

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



- VaR is a statistical measure of risks and has limitations associated with the assumptions employed.
- Historical simulation assumes that actual observed historical changes in market indices, such as interest rates, foreign exchange rates and equity prices, reflect possible future changes.
- This implies that the approach is vulnerable to sudden changes in market behaviour.
- The use of a 10-day holding period assumes that the positions can be unwound in 10 trading days and the holding period may be insufficient at times of severe illiquidity.
- Also, VaR does not necessarily reflect all aspects of risks that affect the price of financial instruments and may underestimate real market risk exposure.
- In addition, VaR does not factor in the possibility of catastrophic risk but the use of stress testing for abnormal market conditions can mitigate this limitation.

2. Nature and Extent – Sensitivity

Case

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



- The VaR for each risk factor and the total VaR of the investments of the Group and HKEx during the year were as follows:

	Group					
	2006			2005		
	Average \$'000	Highest \$'000	Lowest \$'000	Average \$'000	Highest \$'000	Lowest \$'000
Foreign exchange risk	5,957	7,422	4,907	5,017	6,185	3,591
Equity price risk	11,207	13,032	8,991	8,495	11,209	6,567
Interest rate risk	11,884	13,862	9,040	20,515	24,043	14,367
Total VaR	18,751	21,005	15,939	23,451	26,869	20,383

	HKEx					
	2006			2005		
	Average \$'000	Highest \$'000	Lowest \$'000	Average \$'000	Highest \$'000	Lowest \$'000
Foreign exchange risk	794	1,245	273	222	709	-
Equity price risk	-	-	-	-	-	-
Interest rate risk	14	35	2	7	22	-
Total VaR	793	1,249	277	228	717	-

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2. Nature and Extent – Sensitivity

Case

Reference to the time horizon and confidence level of some entities used in VaR analysis

Entity name	Time horizon	Confidence level
• HSBC	• 1 day	• 99%
• BoC-HK	• 1 day	• 99%
• Standard Chartered	• 1 day	• 97.5%
• HKMA	• 1 month	• 95%
• HKEx	• 10 days	• 95%



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2. Nature and Extent – Sensitivity

Example

Variance-Covariance Approach in VaR

- Assume you have a financial asset with the following details:
 - \$ 10 million in HSBC shares
 - Volatility is 2% per day and 32% per year
- Find 10-day VaR at 99% confidence level

- The standard deviation of daily changes in the value of the asset is:
 2% of \$ 10 million = \$ 200,000
- Assuming the changes on successive days are independent, the standard deviation over 10-day period to be
 $\$ 200,000 \times \sqrt{10} = \$ 632,456$
- 99% confidence level implies $N(-2.33) = 0.01$
- Thus, 10-day 99% VaR for that \$10 million portfolio is:
 $\$ 632,456 \times 2.33 = \$ 1,473,621$

Modified from *Options, Futures, & Other Derivatives*,
by John C. Hull, 4th Edition, Prentice Hall, 2000

2. Nature and Extent – Other

Quantitative Disclosures

Other market risk disclosures

- When the sensitivity analyses disclosed (by the 2 approaches) are unrepresentative of a risk inherent in a financial instrument
 - the entity shall disclose
 - that fact and
 - the reason it believes the sensitivity analyses are unrepresentative.



HKAS 32 & 39 and HKFRS 7 – Part Two

11 March 2008

Full set of slides in PDF may be found in
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