

Fair Value Measurement & Disclosures

25 February 2008



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The Relevance of Fair Value



- For financial reporting, fair value is used or mentioned in most HKFRSs and HKASs
- For audit, an auditor has responsibility
 - To obtain sufficient appropriate audit evidence that fair value measurements and disclosures are in accordance with the entity's applicable financial reporting framework (HKSA 545.3 and 17)

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Definition of Fair Value in HKFRSs

- **Fair value** is defined as:

- the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction

Knowledgeable,
Willing Parties

Arm's length
transactions

- The same definition is used in different HKFRSs,
 - The application to different assets and liabilities may not be the same, for example:
 - HKAS 16 *Property, plant and equipment*
 - HKAS 18 *Revenue*
 - HKAS 39 *Financial instruments: recognition and measurement*
 - HKAS 40 *Investment property*
 - HKFRS 2 *Share-based payment*

Characteristics of Fair Value



Knowledgeable,
Willing Parties

Arm's length
transactions

- Under HKFRSs, there are the following characteristics embedded in fair value:
 - Normally transaction price, unless consideration is for something other than the assets/liabilities involved
 - Between knowledgeable, willing parties
 - In arm's length transactions
 - No deduction for transaction costs, which may be incurred on sale or other disposal
 - Time-specific as of a given date

Characteristics of Fair Value



- The best evidence for fair value is the current bid price in an active market
- If no such price in an active market, the information from a variety of sources can be considered, for example:
 - a) prices of most recent transactions
 - b) current prices in a less active market
 - c) value derived from valuation techniques, including
 - using recent arm's length market transactions between knowledgeable, willing parties
 - discounted cash flow analysis
 - option pricing models
 - other valuation techniques commonly used in the market

Initial vs. Subsequent Measurement

Example

- Fair value can be applied to
 - initial measurement,
 - subsequent measurement, or
 - both

Applied to both initial and subsequent measurement:

- Inventories (HKAS 2)
- Financial assets and liabilities at fair value through P/L (HKAS 39)
- Available for sale financial assets (HKAS 39)
- Agriculture (HKAS 41)

Applied to initial measurement but not subsequent measurement:

- Held-to-maturity (HKAS 39)
- Loans and receivables (HKAS 39)
- Business combination (HKFRS 3)

Not applied to initial measurement but applied to subsequent measurement (incl. selective):

- Property, plant and equipment (HKAS 16)
- Intangible assets (HKAS 38)
- Investment property (HKAS 40)

Fair Value vs. Revaluation Model

Fair value model (HKAS 40)

- Refers to fair value
- Changes in fair value recognised in income statement
- Revalued each balance sheet date
- N/A

• Revaluation model (HKAS 16)

- Refers to fair value
- Changes in fair value recognised in equity (or reserve)
- Not clearly defined, only require sufficient regular that no material different from fair value
- Deficit about fair value below depreciated cost is recognised in income statement

Today's Agenda

Financial Instruments: Disclosures
(HKFRS 7)

Property, Plant and Equipment
(HKAS 16)

Investment Property
(HKAS 40)

Financial Instruments
(HKAS 39)



Today's Agenda

Financial Instruments: Disclosures (HKFRS 7)



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Introduction

- 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
- 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, andhow the entity manages those risks.

Significance

- Balance sheet
- Income statement
- Other disclosures

Nature and Extent

- Qualitative disclosures
- Quantitative disclosures

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Nature and Extent of Risks



- 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.

Nature and Extent

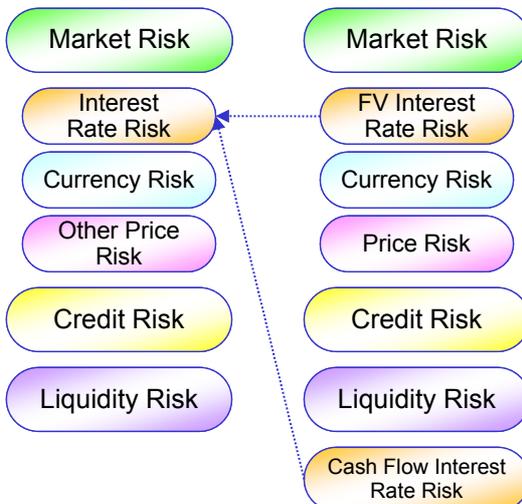
Qualitative Disclosures

Quantitative Disclosures

Nature and Extent of Risks

In HKFRS 7

In HKAS 32



Nature and Extent

Qualitative Disclosures

Quantitative Disclosures

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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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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Nature and Extent – Market Risk

Quantitative Disclosures

Credit risk and liquidity risk

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.



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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.

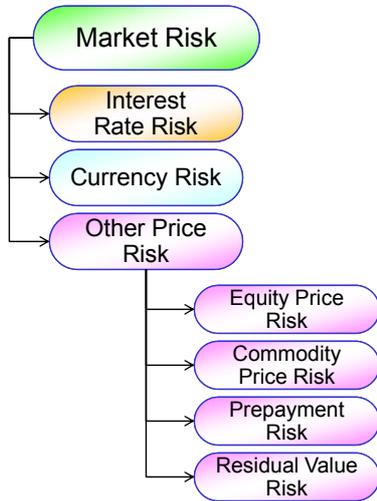


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Nature and Extent – Sensitivity

Example



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

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

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:
 - interest income and expense;
 - other line items of profit or loss (such as trading gains and losses); and
 - 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.

Nature and Extent – Sensitivity

Example

Identify

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

Sample Inc.	2007	2006
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>

Nature and Extent – Sensitivity

Example

Interest rate risk

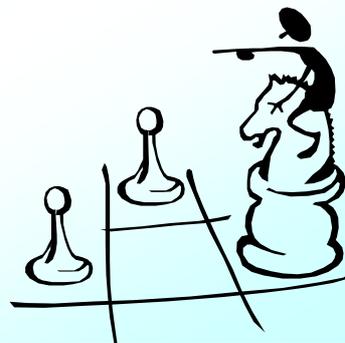
- At 31 Dec. 20X2, if interest rates at that date had been 10 basis points lower with all other variables held constant,
 - post-tax profit for the year would have been \$1.7 million (20X1: \$2.4 million) higher, arising mainly as a result of lower interest expense on variable borrowings, and
 - other 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.

Nature and Extent – Sensitivity

Example

Interest rate risk

- Profit is more sensitive to interest rate decreases than increases because of borrowings with capped interest rates.
- The sensitivity is lower in 20X2 than in 20X1 because of a reduction in outstanding borrowings that has occurred as the entity's debt has matured (see note X).



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.

Nature and Extent – Sensitivity

Quantitative Disclosures

Market risk – Sensitivity Analysis That Reflects Interdependencies Between Risks Variables

- An entity might comply the VaR methodology by disclosing
 - the type of VaR model used (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 historical observation period and weightings applied to observations within that period,
 - an explanation of how options are dealt with in the calculations, and
 - which volatilities and correlations (or, alternatively, Monte Carlo probability distribution simulations) are used.

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



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?

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.

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	6,135	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	-

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.



Today's Agenda

Property, Plant and Equipment
(HKAS 16)



Measurement after Recognition

- An entity shall choose either:

Cost Model

Revaluation Model

- as its accounting policy and
- the entity shall apply that policy to an entire class of PPE.



Measurement after Recognition

Cost Model

After recognition as an asset, an item of PPE shall be carried at

- its cost
- less
 - any accumulated depreciation and
 - any accumulated impairment losses

Revaluation Model

After recognition as an asset, an item of PPE shall be carried at

- a revalued amount, being its fair value at the date of the revaluation,
- Less
 - any subsequent accumulated depreciation and
 - subsequent accumulated impairment losses.

Measurement after Recognition

Revaluation Model

What is fair value?

- **Fair value** is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.
All HKFRS/HKAS have same definition on fair value now.
- The fair value of
 - land and buildings ⇒ is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers.
 - items of PPE ⇒ is usually their market value determined by appraisal.
- If there is no market-based evidence of fair value because of the specialised nature of the item of PPE and the item is rarely sold, ⇒ an entity may need to estimate fair value using
 - an income or
 - a depreciated replacement cost approach.

Measurement after Recognition

Revaluation Model

Revaluations shall be made with sufficient regularity

- to ensure that the carrying amount does not differ materially from the fair value at the balance sheet date.

- The frequency of revaluations depends upon the changes in fair values of the items of PPE being revalued.
 - a) When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is required.
 - b) Some items of PPE experience significant and volatile changes in fair value, thus necessitating annual revaluation.
 - c) Such frequent revaluations are unnecessary for items of PPE with only insignificant changes in fair value. Instead, it may be necessary to revalue the item only every 3 or 5 years.

Measurement after Recognition

Revaluation Model

- Class →
- If an item of property, plant and equipment is revalued,
 - the entire class of PPE to which that asset belongs shall be revalued
 - If an asset's carrying amount is increased as a result of a revaluation, the increase shall be credited directly to equity under the heading of revaluation surplus.
 - However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.
 - If an asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognised in profit or loss.
 - However, the decrease shall be debited directly to equity under the heading of revaluation surplus to the extent of any credit balance existing in the revaluation surplus in respect of that asset.

Entire class

To Equity directly

Negative to P/L

Measurement after Recognition

Revaluation Model

- Class →
- A class of PPE is a grouping of assets of a similar nature and use in an entity's operations and examples of classes include:
 - Land;
 - Land and buildings;
 - Machinery;
 - Ships;
 - Aircraft;
 - Motor vehicles;
 - Furniture and fixtures; and
 - Office equipment
 - The items within a class of PPE are revalued simultaneously to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates.

Measurement after Recognition

Example

Revaluation Model

- In 2005, an entity buys a PPE at \$1,000 and adopts revaluation model.

Dr	PPE	1,000
Cr	Cash	1,000

- At year end of 2005,
 - PPE's fair value rises to \$1,500.

Dr	PPE (1,500 – 1,000)	500
Cr	Revaluation reserves	500

- At year end of 2006,
 - PPE's fair value falls to \$800.

Dr	Revaluation reserves	500
	Profit and loss	200
Cr	PPE (1,500 – 800)	700

- Ignore the depreciation, prepare journal for each situation above.

Measurement after Recognition

Revaluation Model

- The revaluation surplus included in equity in respect of an item of PPE may be transferred directly to retained earnings when the asset is derecognised.
- However, some of the surplus may be transferred as the asset is used by an entity.
 - In such a case, the amount of the surplus transferred would be the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost.

Dr	Revaluation surplus (depreciation based on the revalued carrying amount less depreciation based on the asset's historical cost)
Cr	Retained earnings

- Transfers from revaluation surplus to retained earnings are not made through profit or loss.

Measurement after Recognition

Example

Revaluation Model

- CJS Limited bought a car with a cost of \$50,000 on 1 Jan. 2005 and adopted the revaluation model.
- The estimated useful life of the car is 5 years.
- On 1 Jan. 2006, the car was revalued with a fair value of \$48,000 at that date.
- Prepare the journal entries for the year ended 31 December 2005 and 31 December 2006.

Year ended 31.12.2005

Dr PPE	50,000	
Cr Cash		50,000

Dr P/L (\$50K ÷ 5 years)	10,000	
Cr Accumulated depreciation		10,000

Dr Accumulated depreciation (48K – (50K – 10K))	8,000	
Cr Revaluation reserves		8,000

Year ended 31.12.2006

Dr P/L (\$48K ÷ 4 years)	12,000	
Cr Accumulated depreciation		12,000
Dr Revaluation reserves	2,000	
Cr Retained earnings		2,000

Measurement after Recognition

Cost Model

Depreciation

Revaluation Model

- **Depreciation** is the systematic allocation of the **depreciable amount** of an asset over its **useful life**.
- **Depreciable amount** is the **cost** of an asset, or **other amount** substituted for cost, less its **residual value**.
- **Useful life** is:
 - a) the period over which an asset is expected to be available for use by an entity; or
 - b) the number of production or similar units expected to be obtained from the asset by an entity.
- The **residual value** of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Today's Agenda

Investment Property
(HKAS 40)



Measurement after Recognition

Introduce [Cost Model](#) and choose either
and

Fair Value Model

Cost Model

- ♦ HKAS 40 implicitly implies that the choice can only be elected on the first-time adoption of HKAS 40
- ♦ The model chosen should be applied to all investment properties, except for
 1. Property held under operating lease classified as investment properties  No choice, only fair value model
 2. Investment property backing liabilities that pay a return linked directly to the fair value of, or returns from specific assets including that investment property  Choose a model for all such properties
 3. Investment property with a fair value that cannot be reliably determinable on a continuing basis (*i.e. inability to determine fair value reliably*)  No choice, only cost model

Measurement after Recognition

Introduce [Cost Model](#) and choose either

Fair Value Model

and

Cost Model

- However, even [Cost Model](#) is adopted, HKAS 40 still requires all entities to determine the fair value of investment property
- [For disclosure purpose](#), the fair value of the investment property has to be disclosed in notes to the financial statement!
- In determining the fair value of investment property for both cost model and fair value model
 - ⇒ an entity is only [encouraged, but not required, to](#) rely on a professional valuer's valuation

Measurement after Recognition

After initial recognition, an entity that chooses →

Fair Value Model

- shall [measure all of its investment property at fair value](#), except in the cases that
 1. the fair value cannot be determined reliably, or
 2. the cost model is chosen for the investment property backing liabilities that pay a return linked directly to the fair value of, or returns from specific assets including that investment property
- When a property interest held by a lessee [under an operating lease](#) is classified as an investment property
 - ⇒ the [fair value model](#) must be applied [for all investment properties](#)
- A [gain or loss](#) arising from a [change in the fair value](#) of investment property shall be [recognised in profit or loss](#) for the period in which it arises



Measurement after Recognition

HKAS 40

Fair Value Model

- Uses fair value, instead of open market value
 - but in substance, they are similar
 - not the same as SSAP 13, HKAS 40 only encourages, but not requires, a profession valuation on a fair value
- Fair value is defined as the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction
 - Same definition used in other HKFRSs and HKASs
 - But HKAS 40 provides more explanations unique for a fair value of a property
- The fair value of investment property shall reflect market conditions at the balance sheet date
 - No depreciation required in HKAS 40



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Measurement after Recognition

Fair Value Model

Under HKAS 40

Fair value has the following attributes:

- No deduction for transaction costs it may incur on sale or other disposal
- Time-specific as of a given date
- Reflects rental income from current leases and from future leases in light of current conditions (with reasonable and supportable assumption)
- Refers to knowledgeable, willing parties
- Refers to an arm's length transaction



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What are the differences between fair value and value in use?

Measurement after Recognition

Fair Value Model

- Value in use consists of the following attributes which are not found in fair value:
 - a) additional value derived from creation of a portfolio of properties;
 - b) synergies between investment property and other assets;
 - c) legal rights or restrictions that are specific only to the current owner; and
 - d) tax benefits or tax burdens that are specific to the current owner.



What are the differences between fair value and value in use?

Measurement after Recognition

Fair Value Model

- The best evidence of fair value is given by current prices in an active market
 - For similar property in the same location and condition and
 - Subject to similar lease and other contracts.
- An entity takes care to identify any differences
 - in the nature, location or condition of the property, or
 - in the contractual terms of the leases and other contracts relating to the property

Measurement after Recognition

Fair Value Model

- If **NO** current prices in an active market, an entity considers the information from a variety of sources, including
 - a) current prices in an active market for properties of different nature, condition or location (or subject to different lease or other contracts), adjusted to reflect those differences;
 - b) recent prices of similar properties on less active markets, with adjustments to reflect any changes in economic conditions since the date of the transactions that occurred at those prices; and
 - c) discounted cash flow projections (based on reliable estimates of future cash flows, and using discount rate with appropriate adjustments and assumptions)
- Considers difference conclusions to arrive reliable estimate of fair value within a range of reasonable fair value estimates

Measurement after Recognition

Fair Value Model

- There is a rebuttable presumption that an entity can reliably determine the fair value of an investment property on a continuing basis.
- However, in exceptional cases and in initial recognition of investment property, there is clear evidence that the fair value of the investment property is not reliably determinable on a continuing basis.
 - This arises when, and only when,
 - comparable market transactions are infrequent and
 - alternative reliable estimates of fair value (for example, based on discounted cash flow projections) are not available.
- In such cases, an entity shall measure that investment property (alone) using the cost model in HKAS 16
 - residual value shall be assumed to be zero
 - apply HKAS 16 until disposal of the investment property
 - shall continue to account for other investment properties using the fair value model

Measurement after Recognition

Fair Value Model

- If an entity has previously measured an investment property at fair value
 - it shall continue to measure the property at fair value until disposal or cessation to be investment property, even if
 - comparable market transactions become less frequent or
 - market prices become less readily available.

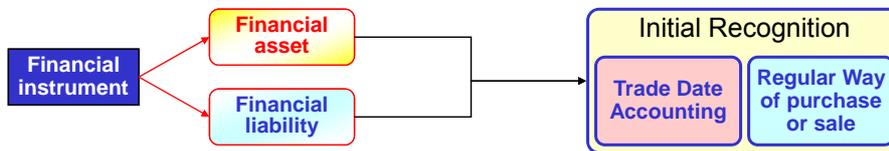
Once you chose **Fair Value Model**, you cannot fall back to **Cost Model**

Today's Agenda

Financial Instruments
(HKAS 39)



Initial Recognition & Measurement



- An entity shall recognise financial instruments on its balance sheet when and only when the entity becomes a party to the contractual provisions of the instruments
 - Implies **trade date accounting** for all cases, except for a **regular way purchase or sale** (e.g. purchase of derivatives)
- When a financial asset or financial liability is recognised initially, an entity shall measure the **financial asset** or a **financial liability**
 - at its **fair value**
 - plus transaction costs (except for those classified *at fair value through profit or loss*)

Fair Value under HKAS 39

Example

Fair value at Initial Recognition – Low Interest Loan

- Entity A grants a 3-year loan of HK\$50,000 to a related party, B, on 1 Jan. 2005 as one kind of financial assistance to support B's operation.
 - A charges B at a interest rate of 2% as A expects the return on B's future operation would be higher.
 - A charges another related party at a current market lending rate of 6%
- Discuss the implication of the loan.

Fair value at Initial Recognition – No Interest Deposit

- Entity X is required to deposit HK\$50,000 to a customer in order to guarantee that it would complete the service contract in 5 years' time.
- When the contract completes (say after 5 years), the deposit would be refunded in full without any interest.

Fair Value under HKAS 39

Initial Measurement (HKAS 39.AG64)

- The fair value of a financial instrument on **initial recognition is normally the transaction price** (i.e. the fair value of the consideration given or received).
- However, if part of the consideration given or received is for something other than the financial instrument, the fair value of the financial instrument is estimated, using a valuation technique.
 - For example, the fair value of a long-term loan or receivable that carries no interest can be estimated as
 - the present value of all future cash receipts discounted using the prevailing market rate(s) of interest for a similar instrument (similar as to currency, term, type of interest rate and other factors) with a similar credit rating.
 - Any additional amount lent is an expense or a reduction of income
 - unless it qualifies for recognition as some other type of asset.

Fair Value under HKAS 39

Example

Fair value at Initial Recognition

- Entity A grants a loan of HK\$50,000 to a related party, B, on 1 Jan. 2005 as one kind of financial assistance to support B's operation.
 - A expects the return on B's future operation would be higher.
 - However, A has not specified the interest rate and repayment terms with Entity B.
 - A charges another related party at a current market lending rate of 6%
- Discuss the implication of the loan.



Fair Value under HKAS 39

No Active Market: Valuation Technique (HKAS 39.AG79)

- Short-term receivables and payables with no stated interest rate may be measured
 - at the original invoice amount if the effect of discounting is immaterial.



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Fair Value under HKAS 39

- **Fair value** is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Active market exists

- A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange and similar entities.
- The existence of published price quotations in an active market is the best evidence of fair value and when they exist they should be used to measure the financial asset (or financial liability)
 - For an asset held (or liability to be issued) → **Current bid price**
 - For an asset to be acquired (liability held) → **Current ask price**
 - If the current bid and asking prices not available → **Price of most recent transaction**

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Fair Value under HKAS 39

- **Fair value** is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

No active market

- An entity establishes fair value by using a valuation technique
 - To establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations
 - Valuation techniques include
 - Using recent arm's length market transactions between knowledgeable, willing parties
 - Discounted cash flow analysis
 - Option pricing models
- Can NAV of an unlisted entity be considered as fair value?
 - It is much like a finance question yes & no

Fair Value under HKAS 39

Case



Determination of Fair Value (Annual Report 2006)

- Subsequent to initial recognition, the fair values of financial instruments measured at fair value that are quoted in active markets are based on
 - bid prices for assets held and
 - offer prices for liabilities issued.
- When independent prices are not available, fair values are determined by using valuation techniques which refer to observable market data.
- These include
 - comparison with similar instruments where market observable prices exist,
 - discounted cash flow analysis,
 - option pricing models and
 - other valuation techniques commonly used by market participants.

Fair Value under HKAS 39

Case



Determination of Fair Value (Annual Report 2006)

- For certain derivatives, fair values may be determined in whole or in part using valuation techniques based on assumptions that are not supported by prices from current market transactions or observable market data.
- A number of factors such as bid-offer spread, credit profile and model uncertainty are taken into account, as appropriate, when fair values are calculated using valuation techniques.
- If the fair value of a financial asset measured at fair value becomes negative, it is recorded as a financial liability until its fair value becomes positive, at which time it is recorded as a financial asset, or it is extinguished.

Fair Value under HKAS 39

Case

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



Accounting report 2006

Fair value of financial instruments

- The fair value of floating rate and overnight deposits with credit institutions is their carrying value. The carrying value is the cost of the deposit and accrued interest.
- The fair value of fixed interest bearing deposits is estimated using discounted cash flow techniques. Expected cash flows are discounted at current market rates for similar instruments at the balance sheet date.
- If the fair value cannot be measured reliably,
 - these financial instruments are measured at cost, being the fair value of the consideration paid for the acquisition of the investment or the amount received on issuing the financial liability.
 - All transaction costs directly attributable to the acquisition are also included in the cost of the investment.

Fair Value under HKAS 39

Case

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



- Accounting report 2006

Fair value of financial instruments

- For financial instruments where there is not an active market, the fair value is determined by using valuation techniques. Such techniques include
 - using recent arm's length transactions,
 - reference to the current market value of another instrument which is substantially the same,
 - discounted cash flow analysis and/or
 - option pricing models
- The use of different pricing models and assumptions could produce materially different estimates of fair values.

Fair Value under HKAS 39

Case



- How did HKEx calculate the fair value of the financial guarantee?

Its annual report (2005) stated that:

- The fair values are based on the fees charged by financial institutions for granting such guarantees discounted using a ten-year Hong Kong Government bond rate to perpetuity.

Its financial statements (2006) issued 8 Mar. 2007 had the above explanation and further stated that:

- The discount rate was 3.73 per cent as at 31 December 2006 (2005: 4.18 per cent).

Fair Value under HKAS 39

Case



Goldbond Group Holdings Ltd. – Interim Report 2006/07:

Note 16: Financial guarantee contracts

- In July 2004, the Group granted a guarantee of US\$3,750,000, equivalent to approximately HK\$29,250,000 in respect of banking facilities granted to a jointly controlled entity.
- In May 2005, the Group entered into funding, allocation and distribution agreements in respect of a bank loan of RMB148,977,000, equivalent to approximately HK\$146,056,000 borrowed by a jointly controlled entity. Pursuant to such agreements, the Group has taken on the funding undertaking and buy-back undertakings, details of which were set out in the Company's circular dated 14 June 2005.
- At the respective date of grant, the fair value of the financial guarantee contracts was assessed by external valuers, Vigers Appraisal & Consulting Limited amounted to US\$137,000 (equivalent to approximately HK\$1,069,000) and RMB762,000 (equivalent to approximately HK\$733,000) respectively.

Fair Value under HKAS 39

Case



Note 51 "Contingent Liabilities" of 2006 Annual Report states that :

- a) Guarantees given and indemnities provided by the Group and the Company in respect of credit facilities granted to
 - Other than the guarantee provided by the Company as mentioned in item (a), the directors considered that the fair values of these financial guarantee contracts at their initial recognition are insignificant on the basis of short maturity periods and low applicable default rates.
 - The financial guarantee contracts of the Company have been recognised in the Company's financial statements.

Fair Value under HKAS 39

Case

KPMG

The Illustrative Financial Statements for 2006

Note 37(c) states that:

- As at the balance sheet date, the directors do not consider it probable that a claim will be made against the company under any of the guarantees
- Deferred income in respect of the single guarantees issued is disclosed in note 26.
- The company has not recognised any deferred income in respect of the cross guarantee as its fair value cannot be reliably measured and its transaction price was \$Nil.

Today's Agenda

Financial Instruments: Disclosures
(HKFRS 7)

Property, Plant and Equipment
(HKAS 16)

Investment Property
(HKAS 40)

Financial Instruments
(HKAS 39)



Fair Value Measurement & Disclosures

25 February 2008

Full set of slides in PDF can be found in
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Fair Value Measurement & Disclosures

25 February 2008

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