

# Construction Industry – Part 1

21 June 2008



**Nelson Lam 林智遠**

MBA MSc BBA ACA ACIS CFA CPA(Aust)  
CPA(US) FCCA FCPA(Practising) MSCA

© 2005-08 Nelson

1

## Today's Agenda

Construction Contracts (IAS 11)

Property, Plant and Equipment (IAS 16)

Simple but  
Comprehensive

Contentious and  
key issues

Real Life Cases  
and Examples

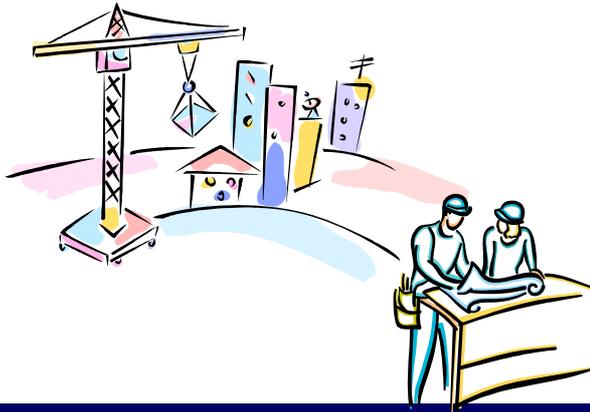


© 2005-08 Nelson

2

# Construction Contract (IAS 11)

## Construction Contracts (IAS 11)



© 2005-08 Nelson

3

## 1. Objective and Scope

- The objective of IAS 11 is to prescribe the accounting treatment of revenue and costs associated with construction contracts.
  - The primary issue in accounting for construction contracts is the allocation of contract revenue and contract costs to the accounting periods in which construction work is performed.
- IAS 11 shall be applied in accounting for construction contracts in the financial statements of contractors.



© 2005-08 Nelson

4

## 2. What is Construction Contract?

A construction contract

- is a contract specifically negotiated for the construction of an asset or a combination of assets
  - that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use.



© 2005-08 Nelson

5

## 2. What is Construction Contract?

- There are usually 2 kinds of contracts:

Fixed Price Contract

- **A fixed price contract**

- is a construction contract in which the contractor agrees to a fixed contract price, or a fixed rate per unit of output, which in some cases is subject to cost escalation clauses.

Cost Plus Contract

- **A cost plus contract**

- is a construction contract in which the contractor is reimbursed for allowable or otherwise defined costs,
  - plus a percentage of these costs or a fixed fee.



© 2005-08 Nelson

6

## 2. What is Construction Contract?

- For the purposes of IAS 11, construction contracts include:
  - a) contracts for the rendering of services
    - which are directly related to the construction of the asset, for example, those for the services of project managers and architects; and
  - b) contracts for the destruction or restoration of assets, and the restoration of the environment following the demolition of assets.

Rendering of Services

Destruction

Restoration



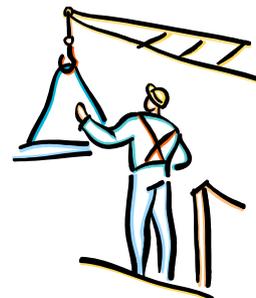
© 2005-08 Nelson

7

## 3. Combining or Segmenting?

### Example

- In 2005, Entity A signed a construction contract of \$50 million with Entity B to build an estate in Macao
- Entity A finished the foundation work and received the down payments of \$10 million
- Entity B requires Entity A to transfer the finished properties of the whole estate to it by 3 phases.
- Discuss the implication to Entity A.



© 2005-08 Nelson

8

### 3. Combining or Segmenting?

- The requirements of IAS 11 are usually applied separately to each construction contract.
- However, in certain circumstances, it is necessary to apply IAS 11
  - to the separately identifiable components of a single contract, or
  - to a group of contracts togetherin order to reflect the substance of a contract or a group of contracts.

Each part of a single contract

2 or more contracts together

### 3. Combining or Segmenting?

- When a contract covers a number of assets, the construction of each asset shall be treated as a separate construction contract when:
  - a) separate proposals have been submitted for each asset;
  - b) each asset has been subject to separate negotiation and the contractor and customer have been able to accept or reject that part of the contract relating to each asset; and
  - c) the costs and revenues of each asset can be identified.

Each part of a single contract



### 3. Combining or Segmenting?

- A group of contracts, whether with a single customer or with several customers, shall be treated as a single construction contract when:
  - a) the group of contracts is negotiated as a single package;
  - b) the contracts are so closely interrelated that they are, in effect, part of a single project with an overall profit margin; and
  - c) the contracts are performed concurrently or in a continuous sequence.

2 or more contracts together



### 3. Combining or Segmenting?

#### Case



Annual Report 2005

- When a contract covers a number of assets, the construction of each asset is treated as a separate contract
  - when separate proposals have been submitted for each asset, each asset has been separately negotiated and the costs and revenue of each asset can be separately identified.
- A group of contracts, performed concurrently or in a continuous sequence, is treated as a single construction contract
  - when the contracts were negotiated as a single package and they are so closely inter-related that they constitute a single project with an overall profit margin.

Each part of a single contract

2 or more contracts together

### 3. Combining or Segmenting?

- A contract may provide for the construction of an additional asset at the option of the customer or may be amended to include the construction of an additional asset.
- The construction of the additional asset shall be treated as a separate construction contract when:
  - a) the asset differs significantly in design, technology or function from the asset or assets covered by the original contract; or
  - b) the price of the asset is negotiated without regard to the original contract price.



### 4. Contract Revenue and Contract Cost

#### Example

- In 2005, Entity A signed a construction contract of \$50 million with Entity B to build an estate in Macao
- Entity A finished the foundation work and received the down payments of \$10 million
- In 2006, Entity B could not source sufficient funds to continue the project and abolished the project.
- Entity A received \$5 million compensation from Entity B on 30 June 2006.
- Discuss the implication



## 4. Contract Revenue and Contract Cost

- Contract revenue shall comprise:
  - a) The initial amount of revenue agreed in the contract; and
  - b) Variations in contract work, claims and incentive payments:
    - i) to the extent that it is probable that they will result in revenue; and
    - ii) they are capable of being reliably measured.



## 4. Contract Revenue and Contract Cost

- Contract costs shall comprise:
  - a) costs that relate directly to the specific contract;
  - b) costs that are attributable to contract activity in general and can be allocated to the contract; and
  - c) such other costs as are specifically chargeable to the customer under the terms of the contract.



## 4. Contract Revenue and Contract Cost

### Case



Annual Report 2005

- Contract revenue comprises
  - the agreed contract amount and
  - appropriate amounts from variation orders, claims and incentive payments.
- Contract costs incurred comprise
  - direct materials,
  - the costs of subcontracting,
  - direct labour and
  - an appropriate proportion of variable and fixed construction overheads.

## 5. Recognition of Contract Revenue & Cost

Estimated  
Reliably

Stage of  
Completion

- When the outcome of a construction contract can be estimated reliably,
  - contract revenue and contract costs associated with the construction contract shall be recognised as revenue and expenses respectively by reference to the stage of completion of the contract activity at the balance sheet date.
- An expected loss on the construction contract
  - shall be recognised as an expense immediately in accordance with IAS 11.



## 5. Recognition of Contract Revenue & Cost

### Example

Estimated Reliably

Fixed Price Contract

Cost Plus Contract

- How can we fulfil “estimated reliably”?
- Assuming Entity A enters into a construction contract with Entity X
  - Entity X would pay all the contract revenue at the inception of the contract
  - Entity A would incur the cost and finish it as soon as possible.
  - At year end, 80% of the contract has been completed
  - Can Entity A recognize 80% of the contract revenue and cost?
- Any differences between
  - Fixed price contract, and
  - Cost plus contract
    - For example, if Entity A can recharge any additional cost to Entity X

## 5. Recognition of Contract Revenue & Cost

Estimated Reliably

Fixed Price Contract



- In the case of a fixed price contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:
  - a) total contract revenue can be measured reliably;
  - b) it is probable that the economic benefits associated with the contract will flow to the entity;
  - c) both the contract costs to complete the contract and the stage of contract completion at the balance sheet date can be measured reliably; and
  - d) the contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.

## 5. Recognition of Contract Revenue & Cost

Estimated Reliably

Cost Plus Contract

- In the case of a cost plus contract, the outcome of a construction contract can be estimated reliably when all the following conditions are satisfied:
  - a) it is probable that the economic benefits associated with the contract will flow to the entity; and
  - b) the contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably.



## 5. Recognition of Contract Revenue & Cost

Estimated Reliably

Fixed Price Contract

Cost Plus Contract

- The outcome of a construction contract can only be estimated reliably
  - when it is probable that the economic benefits associated with the contract will flow to the entity.
- However, when an uncertainty arises about the collectibility of an amount already included in contract revenue, and already recognised in the income statement,
  - the uncollectable amount or the amount in respect of which recovery has ceased to be probable is
    - recognised as an expense
    - rather than as an adjustment of the amount of contract revenue.

## 5. Recognition of Contract Revenue & Cost

### Case

Estimated  
Reliably

Fixed Price  
Contract

### Century City International Holdings Limited

Annual Report 2006

- Accounting policy on construction contracts
  - Revenue from long term fixed price construction contracts is recognised
    - when the relevant contract has completed not less than 50%
    - based on the percentage of completion method,
    - measured by reference to the work certified by architects for the relevant contract.

## 5. Recognition of Contract Revenue & Cost

Estimated  
Reliably

Stage of  
Completion

- The recognition of revenue and expenses by reference to the stage of completion of a contract is often referred to as
  - the percentage of completion method.



## 5. Recognition of Contract Revenue & Cost

- The stage of completion of a contract may be determined in a variety of ways.
- The entity uses the method that measures reliably the work performed.
- Depending on the nature of the contract, the methods may include:
  - a) the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs;
  - b) surveys of work performed; or
  - c) completion of a physical proportion of the contract work.

Cost Incurred To Date

Survey of Work

Physical Proportion



## 5. Recognition of Contract Revenue & Cost

### Example

- On 1 Jan. 2006, Vision Corp. signed a construction contract with a customer for 3 years with an agreed contract consideration of \$200 million.
- The cost of the contract was estimated at \$150 million.
- During the year to 31 Dec. 2006, Vision Corp. incurred contract cost of \$70 million.
- The surveyor certified that 40% of the contract work had been completed on 31 Dec. 2006.
- On 31 Dec. 2006, Vision Corp. received a progress payment of \$100 million.
- Which basis can be used as stage of completion of the contract?

$\$70 / \$150$   
= 46.7%

Surveys of work = 40%

?

Progress payments and advances received from customers often do not reflect the work performed.

## 5. Recognition of Contract Revenue & Cost

### Case



SUN HUNG KAI PROPERTIES LTD.

Annual Report 2006/07

- Accounting policy on construction
  - Revenue in respect of building construction job is recognized on the percentage of completion method measured by reference to the proportion that
    - costs incurred to date bear to
    - estimated total costs for the contract.

Cost Incurred  
To Date

## 5. Recognition of Contract Revenue & Cost

### Case



BEIJING ENTERPRISES HOLDINGS LIMITED

Annual Report 2005

- Revenue from fixed price construction contracts is recognised on the percentage of completion method,
  - measured by reference to the proportion of costs incurred to date to the estimated total cost of the relevant contract.
- Revenue from cost plus construction contracts is recognised on the percentage of completion method,
  - by reference to the recoverable costs incurred during the period plus the related fee earned, measured by the proportion of costs incurred to date to the estimate total cost of the relevant contract.

Cost Incurred  
To Date

## 5. Recognition of Contract Revenue & Cost

### Case



Annual Report 2005

Accounting policy on construction revenue

- Revenue from a fixed price contract is recognized using the percentage of completion method,
  - measured by reference to the percentage of estimated value of work performed to date to total contract revenue.

Physical Proportion

## 5. Recognition of Contract Revenue & Cost



- When the outcome of a construction contract cannot be estimated reliably:
  - a) revenue shall be recognised only to the extent of contract costs incurred that it is probable will be recoverable; and
  - b) contract costs shall be recognised as an expense in the period in which they are incurred.
- An expected loss on the construction contract shall be recognised as an expense immediately in accordance with IAS 11.
- When the uncertainties that prevented the outcome of the contract being estimated reliably no longer exist,
  - revenue and expenses associated with the construction contract shall be recognised in as usual rather than as above.

## 5. Recognition of Contract Revenue & Cost

### Example

- As set out before, on 1 Jan. 2006, Vision Corp. signed a construction contract with a customer for 3 years with an agreed contract consideration of \$200 million.
- The cost of the contract was estimated at \$150 million.
- During the year to 31 Dec. 2006, Vision Corp. incurred contract cost of \$70 million.
- The surveyor certified that 40% of the contract work had been completed on 31 Dec. 2006.
- On 31 Dec. 2006, Vision Corp. received a progress payment of \$100 million.
- Prepare the journal entries and extract of financial statements of Vision Corp. for the year ended 31 Dec. 2006.
- Assumed that the percentage of completion of the contract is based on the work certified by an independent surveyor appointed by the customer.

Cost to date  
= \$70 M

Received  
= \$100 M

Surveys of  
work = 40%

## 5. Recognition of Contract Revenue & Cost

### Example

	Dr \$'M	Cr \$'M
Cost incurred to date	70	
Cash		70
<i>To account for cost incurred to 31.12.2006</i>		
Cash	100	
Progress payments		100
<i>To recognise progress payments received</i>		
Contract cost (40% x \$150 million)	60	
Recognised profit	20	
Contract revenue (40% x \$200 million)		80
<i>To recognise profit on the contract</i>		

## 6. Recognition of Expected Losses

- When it is probable that total contract costs will exceed total contract revenue,
  - the expected loss shall be recognised as an expense immediately.
- The amount of such a loss is determined irrespective of:
  - a) whether work has commenced on the contract;
  - b) the stage of completion of contract activity; or
  - c) the amount of profits expected to arise on other contracts which are not treated as a single construction contract in accordance with IAS 11.



© 2005-08 Nelson

33

## 6. Recognition of Expected Losses

### Case



#### Annual Report 2005

- Provision is made for foreseeable losses as soon as they are anticipated by management.
- Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings,
  - the surplus is treated as an amount due from customer for contract work.
- Where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses,
  - the surplus is treated as an amount due to customer for contract work.

© 2005-08 Nelson

34

## 7. Changes in Estimates

- The percentage of completion method is applied on a cumulative basis in each accounting period to the current estimates on contract revenue and contract costs.
  - Therefore, the effect of a change in the estimate of contract revenue or contract costs, or the effect of a change in the estimate on the outcome of a contract, is accounted for as a change in accounting estimate (see IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*).
- The changed estimates are used in the determination of the amount of revenue and expenses recognised in the income statement
  - in the period in which the change is made and
  - in subsequent periods.



© 2005-08 Nelson

35

## 8. Disclosure

- An entity shall disclose:
  - a) the amount of contract revenue recognised as revenue in the period;
  - b) the methods used to determine the contract revenue recognised in the period; and
  - c) the methods used to determine the stage of completion of contracts in progress.
- An entity shall disclose each of the following for contracts in progress at the balance sheet date:
  - a) the aggregate amount of costs incurred and recognised profits (less recognised losses) to date;
  - b) the amount of advances received; and
  - c) the amount of retentions.
- An entity shall present:
  - a) the gross amount due from customers for contract work as an asset; and
  - b) the gross amount due to customers for contract work as a liability.



© 2005-08 Nelson

36

## 8. Disclosure

- The gross amount due from customers for contract work is the net amount of:
  - a) costs incurred plus recognised profits; less
  - b) the sum of recognised losses and progress billings for all contracts in progress for which costs incurred plus recognised profits (less recognised losses) exceeds progress billings.
- The gross amount due to customers for contract work is the net amount of:
  - a) costs incurred plus recognised profits; less
  - b) the sum of recognised losses and progress billings for all contracts in progress for which progress billings exceed costs incurred plus recognised profits (less recognised losses).
- An entity discloses any contingent liabilities and contingent assets in accordance with IAS 37. Contingent liabilities and contingent assets may arise from such items as warranty costs, claims, penalties or possible losses.

## 8. Disclosure

### Case



Annual Report 2005

Accounting policy on construction contract

- Construction contracts in progress at the balance sheet date
  - are recorded in the balance sheet at
    - the net amount of costs incurred
    - plus recognized profit less recognized losses and
    - estimated value of work performed, including progress billing, and
  - are presented in the balance sheet as
    - the “Gross amount due from customers for contract work” (as an asset) or
    - the “Gross amount due to customers for contract work” (as a liability), as applicable.
- Progress billings for work performed on a contract not yet paid by customers are included in the balance sheet under
  - “Prepayments, deposits and other current assets”.

## 8. Disclosure

### Example

Based on the Example set out before (incl. the following entries), prepare the extracts in the financial statements for disclosure purpose:

	<u>Dr (\$'M)</u>	<u>Cr (\$'M)</u>	
Cost incurred to date	70		Balance Sheet
Cash		70	
<i>To account for cost incurred to 31.12.2006</i>			
Cash	100		Balance sheet
Progress payments		100	
<i>To recognise progress payments received</i>			
Contract cost (40% x \$150 million)	60		Income statement
Recognised profit	20		
Contract revenue (40% x \$200 million)		80	
<i>To recognise profit on the contract</i>			

## 8. Disclosure

### Example

<u>Income statement (Extract only)</u>	\$'M
Contract revenue	80
Contract cost	<u>(60)</u>
<i>Recognised profit</i>	20

<u>Balance sheet (Extract only)</u>	\$'M
Gross amounts due from/to customers	
Cost incurred to date	70
Recognised profit	<u>20</u>
	90
Less: Progress payments	<u>(100)</u>
Gross amounts due to customers	(10)

*Note: Gross amounts were in credit balance at year end and hence gross amounts due to customers were shown at year end*

## 8. Disclosure

### Example

Based on the information of the Example before, i.e.:

- On 1 Jan. 2006, Vision Corp. signed a construction contract with a customer for 3 years with an agreed contract consideration of \$200 million. The cost of the contract was estimated at \$150 million.
- During the year to 31 Dec. 2006, Vision Corp. incurred contract cost of \$70 million. The surveyor certified that 40% of the contract work had been completed on 31 Dec. 2006.
- On 31 Dec. 2006, Vision Corp. received a progress payment of \$100 million.
- Assumed that the percentage of completion of the contract is based on the work certified by an independent surveyor appointed by the customer.

Further information for 2007 is set out below:

- Contract cost incurred to 30 Jun. 2007 is \$60 million and the total estimated cost would be \$160 million.
- Progress payment received is \$50 million.
- Surveyor certifies 80% of the contract work completed by 30.6.2007.
- Prepare the journal entries and disclosures.

Change in accounting estimate

## 8. Disclosure

### Example

	Dr \$'M	Cr \$'M
Cost incurred to date	60	
Cash		60
<i>To account for cost incurred for 2007</i>		
Cash	50	
Progress payments		50
<i>To recognise progress payments received for 2007.</i>		
Contract cost (80% x \$160M – \$60M)	68	
Recognised profit	12	
Contract revenue (80% x \$200M – \$80M)		80
<i>To recognise profit on the contract</i>		

## 8. Disclosure

### Example

<u>Income statement (Extract only)</u>	\$'M
Contract revenue	80
Contract cost	<u>(68)</u>
Recognised profit	12

<u>Balance sheet (Extract only)</u>	\$'M
Gross amounts due from/to customers	
Cost incurred to date (\$70M + \$60M)	130
Recognised profit (\$20M + \$12M)	<u>32</u>
	162
Less: Progress payments (\$100M + \$50M)	<u>(150)</u>
Gross amounts due from customers	12

*Note: Gross amounts were in debit balance at 30.6.2007 and hence gross amounts due from (not to) customers were shown*

## Property, Plant and Equipment (IAS 16)



## Today's Agenda

Definition

1. Objective and Scope

2. Definitions

Recognition

3. Recognition

4. Measurement At Recognition

Measurement

5. Measurement After Recognition

6. Derecognition

Presentation and Disclosure

7. Disclosure

## Today's Agenda

### 1. Objective and Scope



# 1. Objective and Scope

- The objective of IAS 16 is
  - to prescribe the accounting treatment for property, plant and equipment (PPE)
  - so that users of the financial statements can discern information about an entity's investment in its PPE and the changes in such investment.
- The principal issues in accounting for property, plant and equipment (PPE) are:
  - a) the recognition of the assets,
  - b) the determination of their carrying amounts and
  - c) the depreciation charges and impairment losses to be recognised in relation to them.

## Definitions

*What are PPE?*

## Recognition

## Measurement

# 1. Objective and Scope

- IAS 16 shall be applied in accounting for PPE
  - except when another standard requires or permits a different accounting treatment.



## IAS 16 does not apply to:

- a) property, plant and equipment classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*;
- b) biological assets related to agricultural activity (see IAS 41 *Agriculture*);
- c) the recognition and measurement of exploration and evaluation assets (see IFRS 6 *Exploration for and Evaluation of Mineral Resources*); or
- d) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources.

However, IAS 16 applies to PPE used to develop or maintain the assets described in (a) and (d).

# 1. Objective and Scope

- Other IFRSs/IASs may require recognition of an item of PPE based on an approach different from that in IAS 16.
  - For example, IAS 17 *Leases* requires an entity to evaluate its recognition of an item of leased PPE on the basis of the transfer of risks and rewards.
  - However, in such cases other aspects of the accounting treatment for these assets, including depreciation, are prescribed by IAS 16.



# 1. Objective and Scope

- An entity shall apply IAS 16 to property that is being constructed or developed for future use as investment property but does not yet satisfy the definition of 'investment property' in IAS 40 *Investment Property*.
  - Once the construction or development is complete, the property becomes investment property and the entity is required to apply IAS 40.
  - IAS 40 also applies to investment property that is being redeveloped for continued future use as investment property.
  - An entity using the cost model for investment property in accordance with IAS 40 shall use the cost model in IAS 16.

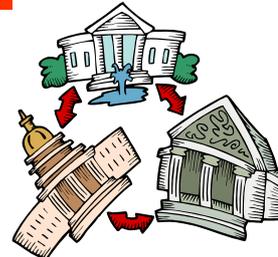


# 1. Objective and Scope

Example

## What are PPE? Are the following PPE?

- Building acquired under an operating lease × → IAS 17
- Building acquired under finance leases ✓
- Freehold property used for rental purpose × → IAS 40
- Investment property under re-development × → IAS 40
- Property held for a currently undetermined future use × → IAS 40
- Leasehold land separated from the leasehold building × → IAS 17



## Today's Agenda

Definition

1. Objective and Scope

**2. Definitions**

*What are PPE?*

## 2. Definitions

- Property, plant and equipment (PPE) are tangible items that:
  - a) are held for use
    - in the production or supply of goods or services,
    - for rental to others, or
    - for administrative purposes; and
  - b) are expected to be used during more than one period.



## 2. Definitions

**Cost** is the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset at the time of its acquisition or construction, or where applicable, the amount attributed to that asset when initially recognised in accordance with the [specific requirements of other IFRSs](#)  
e.g. IAS 39, IFRS 2

**Residual value** Revised but .....  
discussed later



# Today's Agenda

Definition



Recognition

1. Objective and Scope

2. Definitions

**3. Recognition**

## 3. Recognition

- The cost of an item of PPE shall be recognised as an asset if, and only if:
  - a) it is probable that future economic benefits associated with the item will flow to the entity; and
  - b) the cost of the item can be measured reliably.
- Major spare parts, servicing equipment, replacement and inspection can also be qualified as PPE.

**Recognition Criteria**

If the recognition criteria is met, such cost is recognised; the carrying amount of the replaced parts or previous inspection is derecognised.

### 3. Recognition – Principle Updated

**Improvement is no longer a threshold**

Recognition criteria (capitalisation) for

Initial Cost

Subsequent Expenditure

Previous

Criteria not the same

Probable that future economic benefit of the asset will flow to the enterprise  
Cost measured reliably

Probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the entity

Now

Same criteria

Probable that future economic benefit of the asset will flow to the entity  
Cost measured reliably  
**Same criteria applied to both costs**

Expenditure not fulfilling the recognition criteria  
– will be charged to income statement

Clearer approach on so-called **Component Accounting**

### 3. Recognition – Principle Updated

Case

**ESPRIT**

**Esprit Holdings Limited (思捷環球)**

- Adopted HK GAAP to 30 June 2003
- Begin to adopt all the new/revised IFRS in 2004 Annual Report
- Accounting policy on property, plant and equipment

– Subsequent costs

are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when

Capitalise

- it is probable that future economic benefits associated with the item will flow to the Group and
- the cost of the item can be measured reliably.

Expense

– All other repairs and maintenance

are charged to the income statement during the financial period in which they are incurred.

Clearer approach on so-called **Component Accounting**

## Today's Agenda

Definition

1. Objective and Scope

2. Definitions

Recognition

3. Recognition

Measurement

**4. Measurement  
At Recognition**

## 4. Measurement at Recognition

- An item of PPE that qualifies for recognition as an asset shall be measured at its **cost**.

**Cost** the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset at the time of its acquisition or construction, or where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other IFRSs  
e.g. IAS 39, IFRS 2



## 4. Measurement at Recognition

- The **cost** of an item of PPE comprises:
  - a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
  - b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
  - c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either
    - when the item is acquired or
    - as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

Purchase Price

Directly  
Attributable Cost

Dismantling Cost



© 2005-08 Nelson

## 4. Measurement at Recognition

Example

- Are the following items directly attributable costs?
  - a) costs of employee benefits arising directly from the construction or acquisition of the item of PPE;
  - b) costs of site preparation;
  - c) initial delivery and handling costs;
  - d) installation and assembly costs;
  - e) costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and
  - f) professional fees.

Yes

© 2005-08 Nelson

62

## 4. Measurement at Recognition

### Example

- Can the following items be the costs of an item of PPE?
  - a) costs of opening a new facility;
  - b) costs of introducing a new product or service (including costs of advertising and promotional activities);
  - c) costs of conducting business in a new location or with a new class of customer (including costs of staff training); and
  - d) administration and other general overhead costs.

No

## 4. Measurement at Recognition

- Recognition of costs in the carrying amount of an item of property, plant and equipment ceases
  - when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.
- Therefore, costs incurred in using or redeploying an item are not included in the carrying amount of that item. For example:
  - Costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;
  - Initial operating losses, such as those incurred while demand for the item's output builds up; and
  - Costs of relocating or reorganizing part or all of an entity's operations.

Not part of the cost of PPE

## 4. Measurement at Recognition

### Example

- Entity A leased an office for a lease term of 5 years in 2005 and incurred \$500,000 in decorating the office.
- The lease requires Entity A to restore the office to its original status when the lease expires.
- Entity A estimates that the cost of restoration will be around \$60,000 at that time.
- Determine the cost of the decoration.

#### The cost of the decoration:

Cost of decoration: **\$500,000**

Initial estimate of restoring the site:

**Present value of \$60,000**

IFRIC Interpretation 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities* set out how to account for the change of this estimate

Assuming discount rate is 6%,  
 PV of \$60,000 is \$ 44,835  
 Total initial cost is \$ 544,835

## 4. Measurement at Recognition

### Example

- Several same air-condition plants have been installed by GV in several leasehold properties. When the properties are returned to the landlord in 4 years, the plants should be removed.
- The properties include factory (3 plants installed), show room (1 plant installed) and head office (2 plants installed).
- The purchase cost of each plant is \$1,000. The installation cost is \$1,000 for each plant. Present value of removal costs of the plant include \$400 resulted from installation only and \$400 from the usage during the 4 years.
- What is the cost of each plant to be recognised?

#### In accordance with IAS 16

- the cost of each plant installed in the factory should be \$2,400 (the purchase cost, installation cost and present value of removal cost from installation).
- the cost of each plant installed in the show room and head office should be \$2,800 (including the present value of all removal costs)
- Since the removal costs of such plants are incurred as a consequence of having used the machine during a particular period for purposes, other than to produce inventories during that period

## 4. Measurement at Recognition

### Example

- Entity A operates an offshore oilfield where its 20-year licensing agreement requires it to remove the oil rig at the end of production and restore the seabed.
- Costs of removal of the oil rig and restoration of the seabed include:
  - 75% relates to damage caused by building the oil rig
  - 10% relates to damage caused by regular maintenance of the oil rig
  - 15% arises through the extraction of oil

85%

The cost of the oil rig includes the best estimate of 85% of the eventual costs a provision in the amount of that cost will be recognised when the oil rig has been constructed.

removal of the oil rig and restoration of damage caused by building it

for purposes, other than to produce inventories during that period

recognised as a liability when the oil is extracted

## 4. Measurement at Recognition

### Case



[A-Max Holding Limited \(奧瑪仕控股有限公司\)](#)

(One of the shareholders of "Greek Mythology" in Macau)

- Notes to the financial statements for year ended 31.3.2006
  - The cost of self-constructed items of property, plant and equipment includes
    - the cost of materials,
    - direct labour,
    - the initial estimate, where relevant, of the costs of dismantling and removing the items and restoring the site on which they are located, and
    - an appropriate proportion of production overheads and borrowing costs

## 4. Measurement at Recognition

Element of cost extended

Same amendment in  
IAS 38 and  
IAS 40

### Rule on Exchange of Assets Revised

Cost of PPE acquired in exchange is measured at fair value

But not required if: Before IAS 16

- it is an exchange for similar assets

In IAS 16

**Commercial  
Substance**

- the exchange transaction lack of Commercial Substance, or

**Fair Value of  
Exchanged Asset**

- the Fair Value is not reliably measurable (both asset received and given up)

- If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

## 4. Measurement at Recognition

To determine **Commercial Substance**

- considering the extent to which its future cash flows are expected to change as a result of the transaction

**Commercial Substance** exists if:

- a) the configuration (risk, timing and amount) of the cash flows of the asset received differs from that of the asset transferred; or
- b) the entity-specific value of the portion of the entity's operations affected by the transaction changes as a result of the exchange; and
- c) the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

**Commercial  
Substance**

## 4. Measurement at Recognition

- Even comparable market transactions do not exist, **Fair Value** of an asset is reliably measurable if
  - a) the variability in the range of various reasonable fair value estimates is not significant for that asset, or
  - b) the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair value.
- If an entity is able to determine reliably the fair value of either the asset received or the asset given up
  - then the fair value of the asset given up is used to measure the cost of the asset received
    - unless the fair value of the asset received is more clearly evident.

Fair Value of Exchanged Asset

## Today's Agenda

Definition

1. Objective and Scope

Recognition

2. Definitions

3. Recognition

Measurement

4. Measurement At Recognition

**5. Measurement  
After Recognition**

## 5. 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.



## 5. 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.

## 5. 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 IFRS/IAS 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.

## 5. 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.

## 5. Measurement after Recognition

### Revaluation Model

- When an item of PPE is revalued, any accumulated depreciation at the date of the revaluation is treated in one of the following ways:
  - a) restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.

This method is often used when an asset is revalued by means of applying an index to its depreciated replacement cost.
  - b) eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset.

This method is often used for buildings.

## 5. Measurement after Recognition

### Example

- At year end, a class of motor vehicles has:
  - Cost of \$100,000 and accumulated depreciation of \$40,000
  - Revalued amount of that class of motor vehicles is \$90,000
- Show the revaluation effect

- Accumulated depreciation restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.
  - Cost restated ( $\$100,000 \times 90,000 / 60,000$ ) \$ 150,000
  - Accumulated depreciation restated ( $\$40,000 \times 90,000 / 60,000$ ) (\$ 60,000 )
- Accumulated depreciation eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount
  - Cost \$ 100,000
  - Accumulated depreciation eliminated ( $\$40,000 - \$30,000$ ) (\$ 10,000 )

## 5. 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

## 5. 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.

## 5. 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.

© 2005-08 Nelson

81

## 5. 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.

© 2005-08 Nelson

82

## 5. 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 ( $\$50K \div 5$ 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 ( $\$48K \div 4$ years)	12,000	
Cr Accumulated depreciation		12,000
Dr Revaluation reserves	2,000	
Cr Retained earnings		2,000

© 2005-08 Nelson

## 5. 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.

© 2005-08 Nelson

84

## 5. Measurement after Recognition

### Depreciation

- Each part of an item of PPE with a cost that is significant in relation to the total cost of the item shall be depreciated separately.
    - e.g. it may be appropriate to depreciate separately the airframe and engines of an aircraft
  - The depreciation charge for each period shall be recognised in profit or loss unless it is included in the carrying amount of another asset.
- ⇒ Each significant component shall be depreciated separately (not clearly required in the past)

Clearer approach on so-called  
**Component Accounting**

© 2005-08 Nelson

## 5. Measurement after Recognition

### Example

### Depreciation

At 1 Jan. 2005, AX bought a laser printing machine of \$50 million

The machine will be used for 5 years (maximum useful life) and then dispose of at zero value

The machine's laser head can operate 500 hours, after that replacement of a new laser head is needed

The cost of a new laser head was \$10 million at that time and its residual value is zero.

Cost of each part is significant in relation to the total cost of the parts  
Each part should be depreciated separately

**Laser machine other than laser head** is depreciated over 5 years

**Laser head** is depreciated over 500 hours

Under usage methods of depreciation, the depreciation charges can be zero while there is no production

© 2005-08 Nelson

86

## 5. Measurement after Recognition

### Example

#### Depreciation

At 1 Jan. 2005, AX bought a laser printing machine of \$50 million

The machine will be used for 5 years (maximum useful life) and then dispose of at zero value

The machine's laser head can operate 500 hours, after that replacement of a new laser head is needed

The cost of a new laser head was \$10 million at that time and its residual value is zero.

Assume the laser head can operate 500 hours or 5 years, which is shorter.

If the machine has not been used in the 2nd year, calculate depreciation on the laser head under different depreciation methods

#### Depreciation for 2nd year

If the laser head is depreciated over 500 hours (unit of production) 5 years on a straight-line basis

- **zero**
- **\$2 million**

## 5. Measurement after Recognition

### Case



#### Annual Report 2005

Where an item of property and equipment comprises major components having different useful lives,

- they are accounted for as separate items of property and equipment.

#### Depreciation

- is calculated to write off the cost or deemed cost, less residual value if applicable, of property and equipment and
- is charged to the income statement on a straight-line basis over the estimated useful lives of each part of an item of property and equipment.

## 5. Measurement after Recognition

Depreciation

Depreciable amount

- The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.
- The residual value and the useful life of an asset shall be reviewed at least at each financial year-end
  - if expectations differ from previous estimates, the change shall be accounted for as a change in an accounting estimate in accordance with IAS 8



© 2005-08 Nelson

89

## 5. Measurement after Recognition

Case



Depreciation

Depreciable amount

A-Max Holding Limited (奧瑪仕控股有限公司)

(One of the shareholders of "Greek Mythology" in Macau)

- Accounting policies for year ended 31.3.2006
  - Where parts of an item of property, plant equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately.
  - Both the useful life of an asset and its residual value, if any, are reviewed annually.



© 2005-08 Nelson

90

## 5. Measurement after Recognition

Depreciation

Residual Value ←

Depreciable amount

- Residual Value is updated as
  - 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
  - Inflation may be incorporated in residual value



© 2005-08 Nelson

91

## 5. Measurement after Recognition

Depreciation

Residual Value ←

Depreciable amount

- As stated before, definition of Residual Value is revised as
  - 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
  - Inflation may be incorporated in residual value
- New requirements *(on both residual value and useful life)*
  - shall be reviewed at least at each financial year end
  - if expectations differ from previous estimates, the change shall be accounted for as a change in an accounting estimate in accordance with IAS 8

© 2005-08 Nelson

92

## 5. Measurement after Recognition

- PPE's residual value may increase to an amount equal to or greater than the asset's carrying amount
  - If it does, the depreciation charge is zero
  - unless and until its residual value subsequently decreases to an amount below the asset's carrying amount

### Be careful

- By referring to the definition of residual value
- It is still limited to the estimates that it would receive currently for the asset if
  - the asset were already of the age and
  - in the condition expected at the end of its useful life

### Implication:

If  
estimated residual  
value > carrying amount  
⇒ no depreciation is  
required

### But feasible only if

- the management clearly intends to dispose of the PPE before the end of its physical usage life
- otherwise, the estimated residual value is minimal or even zero

## 5. Measurement after Recognition

### Example

### Same laser machine example as before

At 1 Jan. 2005, AX bought a laser printing machine of \$50 million

The machine will be used for 5 years (maximum useful life) and then dispose of at zero value

The machine's laser head can operate 500 hours, after that replacement of a new laser head is needed

The cost of a new laser head was \$10 million at that time and its residual value is zero.

- At 31 Dec. 2005, the price of a new laser machine increases to \$75 million
- No change in cost of a new laser head and estimated maximum useful life
- Shall AX revise the residual value at 31 Dec. 2005?

### No!

- AX has not changed its usage plan and the residual value after the estimated useful live would still be zero

## 5. Measurement after Recognition

### Example

#### Another one

- At 1 Jan. 1985, Entity A bought a flat in Tai Koo Shing at \$ 500,000.
  - Entity A aimed to use it for 50 years until the end of its estimated useful life
  - The original estimated residual value is zero
  - Depreciation is calculated on a straight-line basis
  - At 31 Dec. 2004, the depreciated historical cost (and carrying amount) of the property was \$0.3 million

- Now, the price of a similar flat in Tai Koo is about \$ 3M
- Shall A revise the residual value?

No!

A has not changed its usage plan and the residual value after the estimated useful life would still be around zero

- If A changes its intention and aims to dispose of the flat in 10 years (i.e. 2015)
- Shall A revise the residual value?

Yes!

If A can demonstrate that it has an intention to dispose of it before the end of its economic life

## 5. Measurement after Recognition

Depreciation

Useful Life ←

Depreciable amount

- The following factors are considered in determining the useful life of an asset, however, it often results in the diminution of the economic benefits that might have been obtained from the asset.
  - Expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.
  - Expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle.
  - Technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset.
  - Legal or similar limits on the use of the asset, such as the expiry dates of related leases.

## 5. Measurement after Recognition

- Depreciation of an asset begins when it is available for use
  - i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.
- Depreciation of an asset ceases at the earlier of the date that
  - the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5 and
  - the date that the asset is derecognised
- Land and buildings are separable assets and are accounted for separately, even when they are acquired together.

Depreciation

Depreciable amount

Implied that depreciation still required even PPE

- becomes idle or
- is retired from active use

## 5. Measurement after Recognition

- The depreciation method used
  - shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity
  - shall be reviewed at least at each financial year-end and
  - such a change shall be accounted for as a change in an accounting estimate in accordance with IAS 8
- Other than the above, that method is applied consistently from period to period
  - unless there is a change in the expected pattern of consumption of those future economic benefits.

Depreciation

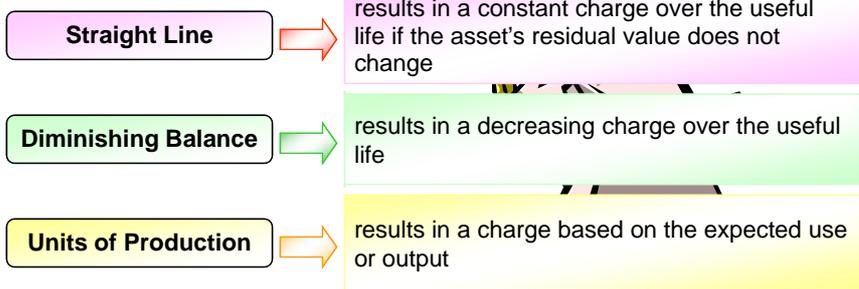
Depreciable amount

Depreciation method



## 5. Measurement after Recognition

- IAS 16 states that:
- A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life.
- These methods include:



## 5. Measurement after Recognition

- 2 broad schools of thought on the meaning of “*consumption of economic benefits*” of an infrastructure asset:

**Time Based View**

Supporters argue for the component approach and primarily straight-line depreciation method as they consider the passage of time determines the consumption of economic benefits for most components of toll roads.

**Usage Based View**

Supporters argue for the integral asset approach and units-of-usage depreciation method as they consider the usage or traffic flow determines the consumption of economic benefits for entire toll roads.

## 5. Measurement after Recognition

### Example

- A machine costs \$600,000 with an estimated useful life of 3 years?
- Calculate depreciation for the years under different depreciation methods.

Depreciation

Depreciable amount

Depreciation method

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
Straight-line basis	200	200	200	<b>600</b>
Reducing balance (at 70%)	420	126	38	<b>584</b>
Sum-of-year-digit	300	200	100	<b>600</b>

## 5. Measurement after Recognition

### Example

- A machine costs \$600,000 with an estimated useful life of 3 years?
- Estimated residual value is \$150,000.  
Depreciable amount = \$450,000
- Calculate depreciation for the years under different depreciation methods.

Depreciation

Depreciable amount

Depreciation method

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
Straight-line basis	150	150	150	<b>450</b>
Reducing balance (at 70%)	315	95	28	<b>438</b>
Sum-of-year-digit	225	150	75	<b>450</b>

## 5. Measurement after Recognition

- To determine whether an item of PPE is impaired, an entity applies IAS 36
- Compensation from third parties for items of property, plant and equipment that were impaired, lost or given up shall be included in profit or loss when the compensation becomes receivable

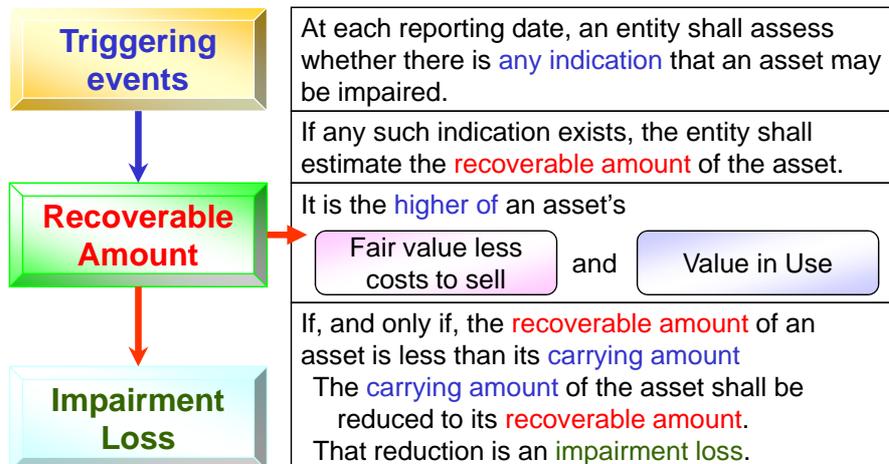
Depreciation

Depreciable amount

Depreciation method

Impairment

## 5. Measurement – Impairment



## 5. Measurement – Impairment

### Compensation for impairment

- Impairments or losses of items of PPE, related claims for or payments of compensation from third parties and any subsequent purchase or construction of replacement assets are separate economic events and are accounted for separately as follows:
  - a) impairments of items of PPE are recognised in accordance with IAS 36;
  - b) derecognition of items of PPE retired or disposed of is determined in accordance with this Standard;
  - c) compensation from third parties for items of PPE were impaired, lost or given up is included in determining profit or loss when it becomes receivable; and
  - d) the cost of items of PPE restored, purchased or constructed as replacements is determined in accordance with IAS 16

## Today's Agenda

Definition

1. Objective and Scope

Recognition

2. Definitions

3. Recognition

Measurement

4. Measurement At Recognition

5. Measurement After Recognition

**6. Derecognition**

## 6. Derecognition

- The carrying amount of an item of PPE shall be derecognised:
  - a) on disposal; or
  - b) when no future economic benefits are expected from its use or disposal.
- The gain or loss arising from the derecognition of an item of PPE shall be included in profit or loss when the item is derecognised (unless IAS 17 requires otherwise on a sale and leaseback).
- Gains shall not be classified as revenue.



© 2005-08 Nelson

107

## 6. Derecognition

- [Derecognition on disposal](#)
  - The disposal of an item of PPE may occur in a variety of ways (e.g. by sale, by entering into a finance lease or by donation).
  - In determining the date of disposal of an item, an entity applies the criteria in IAS 18 *Revenue* for recognising revenue from the sale of goods.
  - IAS 17 *Leases* applies to disposal by a sale and leaseback.



© 2005-08 Nelson

108

## 6. Derecognition

### Case



#### Melco Development Limited (新濠國際發展有限公司)

Accounting policies for year ended 31.12.2005

- An item of property, plant and equipment is derecognised
  - upon disposal or
  - when no future economic benefits are expected to arise from the continued use of the asset.
- Any gain or loss arising on derecognition of the asset (calculated as the difference between
  - the net disposal proceeds and
  - the carrying amount of the item)is included in the income statement in the year in which the item is derecognised.

## 6. Derecognition

- Derecognition on replacement
  - If, under the initial recognition principle,
    - an entity recognises in the carrying amount of an item of PPE the cost of a replacement for part of the item,
    - then it derecognises the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately.
- The gain or loss arising from the derecognition of an item of PPE shall be determined as the difference between
  - the net disposal proceeds, if any, and
  - the carrying amount of the item.



## 6. Derecognition

### Example

#### Same laser machine example as before

At 1 Jan. 2005, AX bought a laser printing machine of \$50 million

- The machine will be used for 5 years (maximum useful life) and then dispose of at zero value
- The machine's laser head can operate 500 hours, after that replacement of a new laser head is needed
- The cost of a new laser head was \$10 million at that time and its residual value is zero.

- At 31 Dec. 2006, replacement of the laser head is needed after 400 hours of operation

- The carrying amount of the laser head alone would be \$ 2 million at that date  
 $[\$10M - (\$10M \div 500 \times 400)]$
- The cost of a new laser head is \$ 8 million.

- If the laser head is replaced
  - Replaced laser head with \$ 2 million shall be derecognised
  - New laser head of \$ 8 million shall be recognised

## 6. Derecognition

### Case



Early adopted HKAS 16 only for 2004

Stated in 2004 Annual Report

The adoption of HKAS 16 has resulted in

- the Group's recognition of cost of replacing concrete road surface of an expressway and
- the derecognition of the carrying amount of the replaced concrete road surface of the expressway



## 6. Derecognition

### Case



Accounting policy for expenditure incurred after fixed assets have been put into operation:

Expense

– Ad hoc repairs and maintenance expenditures are charged to the profit and loss account in the period in which they are incurred

Capitalise

– Cost of replacing concrete road surface of expressways is recognised in the carrying amount of expressways and the carrying amount of replaced concrete road is derecognised

Capitalise

– Expenditures for upgrading asphalt road surface of an expressways

are capitalised as additional costs of the expressway

Capitalise

– In other situations where it can be clearly demonstrated that the expenditure has resulted in an increase in the future economic benefits expected to be obtained from the use of the fixed asset the expenditure is capitalised as an additional cost of that asset.

## Today's Agenda

Definition

1. Objective and Scope

Recognition

2. Definitions

3. Recognition

Measurement

4. Measurement At Recognition

5. Measurement After Recognition

Presentation and Disclosure

6. Derecognition

**7. Disclosure**

## 7. Disclosure

- The financial statements shall disclose, for each class of PPE:
  - a) the measurement bases used for determining the gross carrying amount;
  - b) the depreciation methods used;
  - c) the useful lives or the depreciation rates used;
  - d) the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period; and .....

## 7. Disclosure

- Detailed information and reconciliation of the carrying amount of PPE are required
- The reconciliation of the carrying amount of PPE for prior period, i.e. comparative reconciliation is now required

The carrying amount of the PPE → net book value of PPE

## 7. Disclosure

- Information include:
  - i) additions;
  - ii) disposals;
  - iii) acquisitions through business combinations;
  - iv) increases or decreases resulting from revaluations and from impairment losses recognised or reversed directly in equity in accordance with IAS 36;
  - v) impairment losses recognised in profit or loss in accordance with IAS 36;
  - vi) impairment losses reversed in profit or loss in accordance with IAS 36;
  - vii) depreciation;
  - viii) the net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and
  - ix) other changes.

© 2005-08 Nelson

117

## 7. Disclosure



### Case

	Leasehold buildings \$'000	Computer trading and clearing systems \$'000	Other computer hardware and software \$'000	Leasehold improvements, furniture, equipment and motor vehicles \$'000	Total \$'000
<b>Net book value at 1 Jan 2003</b>					
– as previously reported (note ii)	117,000	444,232	105,304	71,572	738,108
– effect of adopting HKAS 17	(98,500)	–	–	–	(98,500)
– as restated (note i)	18,500	444,232	105,304	71,572	639,608
<b>Additions</b>	–	13,431	16,775	6,041	36,247
<b>Disposals</b>	–	(3,474)	(6,659)	(1,604)	(11,737)
<b>Depreciation</b>	(748)	(109,510)	(39,703)	(31,778)	(181,739)
<b>Revaluation (note 34)</b>	548	–	–	–	548
<b>Net book value at 31 Dec 2003</b>	18,300	344,679	75,717	44,231	482,927
<b>At 31 Dec 2003</b>					
At cost	–	1,345,403	347,385	231,519	1,924,307
At valuation	18,300	–	–	–	18,300
Accumulated depreciation	–	(1,000,724)	(271,668)	(187,288)	(1,459,680)
<b>Net book value</b>	18,300	344,679	75,717	44,231	482,927

© 2005-08 Nelson

118

## 7. Disclosure

### Case

#### 15. PROPERTY, PLANT AND EQUIPMENT

Galaxy (2005 Annual Report)

Group	Buildings	Leasehold improvements	Plant and machinery	Gaming equipment	Other assets	Assets under construction	Total
	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	
<b>Cost</b>							
At 31st December 2004, as restated	40,295	32,546	700,383	—	256,681	—	1,029,905
Exchange differences	900	61	5,168	—	3,702	—	9,831
Acquisition of subsidiaries	—	1,962	—	30,873	11,318	333,085	377,238
Additions	578	1,271	24,465	91	22,936	419,221	468,562
Disposals	—	(1,062)	(3,872)	—	(11,699)	—	(16,633)
<b>At 31st December 2005</b>	<b>41,773</b>	<b>34,778</b>	<b>726,144</b>	<b>30,964</b>	<b>282,938</b>	<b>752,306</b>	<b>1,868,903</b>
<b>Accumulated depreciation and impairment</b>							
At 31st December 2004, as restated	4,668	24,153	396,713	—	137,488	—	563,022
Exchange differences	97	12	1,792	—	1,310	—	3,211
Charge for the year	1,273	2,113	49,530	1,950	25,664	—	80,530
Disposals	—	(176)	(3,580)	—	(11,699)	—	(15,435)
Impairment	1,698	—	10,702	—	670	—	13,070
<b>At 31st December 2005</b>	<b>7,736</b>	<b>26,102</b>	<b>455,177</b>	<b>1,950</b>	<b>153,433</b>	<b>—</b>	<b>644,398</b>
<b>Net book value</b>							
<b>At 31st December 2005</b>	<b>34,037</b>	<b>8,676</b>	<b>270,967</b>	<b>29,014</b>	<b>129,505</b>	<b>752,306</b>	<b>1,224,505</b>

© 2005-08 Nelson

119

## 7. Disclosure

### Case

Melco Development Limited (2005 Annual Report)



THE GROUP	Restaurant vessels, ferries and pontoons	Buildings	Leasehold improvements	Furniture, fixtures and equipment	Gaming machine	Motor vehicles	Construction in progress	Total
	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	HK\$'000	
<b>COST</b>								
At 1 January 2004	43,665	614	7,477	90,585	—	—	—	142,341
Acquired on acquisition of subsidiaries	—	—	3,829	16,983	43,637	—	—	64,449
Additions	7,475	—	6,093	9,262	17,137	263	12,030	52,260
Transfers	11,545	—	134	(134)	—	—	(11,545)	—
Disposals	(135)	(474)	—	(20,130)	—	—	—	(20,739)
<b>At 31 December 2004</b>	<b>62,550</b>	<b>140</b>	<b>17,533</b>	<b>96,566</b>	<b>60,774</b>	<b>263</b>	<b>485</b>	<b>238,311</b>
Exchange adjustments	—	—	7	11	—	7	—	25
Additions	2,680	3,861	23,394	36,138	100,274	1,064	—	167,411
Transfer	—	—	—	485	—	—	(485)	—
Disposals	(1,506)	—	(731)	(3,453)	(1,723)	—	—	(7,413)
<b>At 31 December 2005</b>	<b>63,724</b>	<b>4,001</b>	<b>40,203</b>	<b>129,747</b>	<b>159,325</b>	<b>1,334</b>	<b>—</b>	<b>398,334</b>

© 2005-08 Nelson

120

## 7. Disclosure

- The financial statements shall also disclose:
  - a) the existence and amounts of restrictions on title, and PPE pledged as security for liabilities;
  - b) the amount of expenditures recognised in the carrying amount of an item of PPE in the course of its construction;
  - c) the amount of contractual commitments for the acquisition of PPE; and
  - d) if it is not disclosed separately on the face of the income statement, the amount of compensation from third parties for items of PPE that were impaired, lost or given up that is included in profit or loss.
- Similar disclosures are required on the PPE measured by using Revaluation Model.

## 7. Disclosure

- Selection of the depreciation method and estimation of the useful life of assets are matters of judgment.
  - Therefore, disclosure of the methods adopted and the estimated useful lives or depreciation rates provides users of financial statements with information that allows them to review the policies selected by management and enables comparisons to be made with other entities.
- For similar reasons, it is necessary to disclose:
  - a) depreciation, whether recognised in profit or loss or as a part of the cost of other assets, during a period; and
  - b) accumulated depreciation at the end of the period.
- In accordance with IAS 8 an entity discloses the nature and effect of a change in an accounting estimate that has an effect in the current period or is expected to have an effect in subsequent periods. For PPE, such disclosure may arise from changes in estimates with respect to:
  - a) residual values;
  - b) the estimated costs of dismantling, removing or restoring items of property, plant and equipment;
  - c) useful lives; and
  - d) depreciation methods.

## 7. Disclosure

- If items of property, plant and equipment are stated at revalued amounts, the following shall be disclosed:
  - a) the effective date of the revaluation;
  - b) whether an independent valuer was involved;
  - c) the methods and significant assumptions applied in estimating the items' fair values;
  - d) the extent to which the items' fair values were determined directly by reference to observable prices in an active market or recent market transactions on arm's length terms or were estimated using other valuation techniques;
  - e) for each revalued class of property, plant and equipment, the carrying amount that would have been recognised had the assets been carried under the cost model; and
  - f) the revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders.

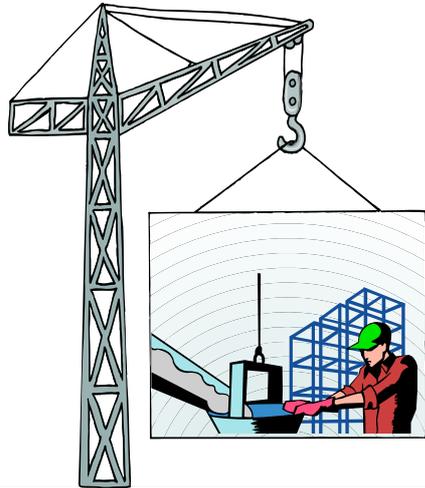
## 7. Disclosure

- Users of financial statements may also find the following information relevant to their needs:
  - a) the carrying amount of temporarily idle PPE;
  - b) the gross carrying amount of any fully depreciated PPE that is still in use;
  - c) the carrying amount of PPE retired from active use and held for disposal;  
and
  - d) when the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount.
- Therefore, entities are encouraged to disclose these amounts.

# Construction Industry – Part 1

21 June 2008

Full set of slides in PDF may be found in  
[www.NelsonCPA.com.hk](http://www.NelsonCPA.com.hk)



**Nelson Lam 林智遠**  
[nelson@nelsoncpa.com.hk](mailto:nelson@nelsoncpa.com.hk)  
[www.nelsoncpa.com.hk](http://www.nelsoncpa.com.hk)

© 2005-08 Nelson

125

# Construction Industry – Part 1

21 June 2008

Full set of slides in PDF may be found in  
[www.NelsonCPA.com.hk](http://www.NelsonCPA.com.hk)



**Nelson Lam 林智遠**  
[nelson@nelsoncpa.com.hk](mailto:nelson@nelsoncpa.com.hk)  
[www.nelsoncpa.com.hk](http://www.nelsoncpa.com.hk)

© 2005-08 Nelson

126