Joint IAAER-IFRS Foundation

IFRS Teaching
Special Interest Session
27 June 2011
Fancourt, George
Programme

08:30 Introduction to Framework-based Teaching
Michael Wells, Director of IFRS Education Initiative, IFRS Foundation and Member of Board of Advisors, IAAER

09:00 Demonstrating Framework-based teaching for CA/CPA stream students
Donna Street, Professor of Accounting, University of Dayton and Past President and Director of Research and Educational Activities, IAAER
Ann Tarca, Professor of Accounting, University of Western Australia and Academic Fellow: Education Initiative, IFRS Foundation

Each presenter walks the participants through the Framework-based teaching of a particular topic at each of the following course levels:
- Stage 1: 1st IFRS course (eg Accounting 101)
- Stage 2: in between
- Stage 3: before final qualifying examinations

10:15 Roundtable Q&A
Mary Barth
Bob Garnett
Katherine Schipper
Donna Street
Ann Tarca
Michael Wells

10:30 Tea

11:00 Demonstrating Framework-based teaching for MBAs
Mary Barth, Professor of Accounting, Stanford University, Academic Advisor to the IASB and former member, IASB
Katherine Schipper, Professor of Accounting, Duke University and former member, FASB

12:30 The role of the Framework in IFRS interpretation
Bob Garnett, Chairman, IFRS Interpretations Committee and former member, IASB

13:00 Roundtable Q&A
Mary Barth
Bob Garnett
Katherine Schipper
Donna Street
Ann Tarca
Michael Wells

13:25 Concluding comments
Donna Street

13:30 Lunch
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Introduction to Framework-based Teaching

Michael Wells
Director of IFRS Education Initiative,
IFRS Foundation and
Member of Board of Advisors,
IAAER
Introduction to Framework-based teaching of principle-based standards

The IASB’s Conceptual Framework

- Framework sets out **agreed concepts** that underlie IFRS financial reporting
  - the **objective** of general purpose financial reporting
  - qualitative characteristics
  - elements of financial statements
  - recognition
  - measurement
  - presentation and disclosure

Other concepts all flow from the objective

**Objective of financial reporting**

“Provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.”

Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans or other forms of credit

**Fundamental qualitative characteristics**

- Relevance
  - Predictive value
  - Confirmatory value
  - Materiality, entity-specific
- Faithful representation (replaces reliability)
  - Completeness
  - Neutrality
  - Free from error

**Enhancing qualitative characteristics**

- Comparability
- Verifiability
- Timeliness
- Understandability
Pervasive constraint

• Cost
  – IASB assesses whether the benefits of reporting particular information are likely to justify the costs incurred to provide and use that information.

Note: It is consistent with the Framework for an IFRS requirement not to maximise the qualitative characteristics of financial information when the costs of doing so would exceed the benefits.

Elements

- **Asset**
  - resource controlled by the entity
  - result of past event
  - expected inflow of economic benefits

- **Liability**
  - present obligation
  - arising from past event
  - expected outflow of economic benefits

- **Equity** = assets less liabilities

- **Income**
  - recognised increase in asset/decrease in liability in current reporting period
  - that result in increased equity except...

- **Expense**
  - recognised decrease in asset/increase in liability in current reporting period
  - that result in decreased equity except...

Recognition

• Accrual basis of accounting
  – recognise element (eg asset) when satisfy definition and recognition criteria

• Recognise item that meets element definition when
  – probable that benefits will flow to/from the entity
  – has cost or value that can measured reliably

*What does probable mean?*

Its meaning is determined at the standards level. Therefore, inconsistent use across IFRSs

Measurement

• Measurement is the process of determining the monetary amounts at which the recognised elements are carried.

• IFRS measurements are largely based on estimates, judgements and models

• The measurement part of the Framework is weak and IASB has a project to replace it

• Measurement determined at the standards level. Therefore, inconsistent use across IFRS

Role of the Framework

• IASB uses Framework to set standards
  – enhances consistency across standards
  – enhances consistency across time as Board members change
  – provides benchmark for judgments

• IFRS Interpretations Committee uses Framework to interpret IFRSs when there is no IFRS requirement

• Preparers use Framework to develop accounting policies in the absence of specific standard
  – IAS 8 hierarchy

*This workshop demonstrates the role of the Framework in IFRS teaching*

Framework-based teaching...

• relates the IFRS requirements being taught to the concepts in the Conceptual Framework

• explains why some IFRS requirements do not maximise those concepts (eg application of the cost constraint or inherited requirements)
Framework-based teaching provides:

- a cohesive understanding of IFRSs
  - Framework facilitates consistent and logical formulation of IFRSs
- a basis for judgement in applying IFRSs
  - Framework established the concepts that underlie the estimates, judgements and models on which IFRS financial statements are based
- a basis for continuously updating IFRS knowledge and IFRS competencies

Support for Framework-based teaching:

- IFRS Foundation education initiative works with others to support Framework-based teaching
  - create awareness
  - develop material (starting with PPE)
  - hold workshops (in 2011: Vienna with World Bank, Bucharest, Denver, George and Venice with IAAER and Rio with BNDES)
  - encourage those certifying accountants to examine their students’ ability to make the judgements that are necessary to apply IFRSs

Range of IFRS classes

Can I use Framework-based teaching in my IFRS class?

- Yes, the starting point for all IFRS teaching should be the objective of IFRS financial information and the concepts that flow logically from that objective
- However, the extent of IFRS requirements taught are likely to vary by course level and to suit the objectives of the course

Focus on CA/CPA stream students

- Can be used at all levels of IFRS classes
- However, this workshop is for CA/CPA stream
- Financial reporting courses at 3 broadly defined stages along the progression to CA/CPA
  - Stage 1: first course
  - Stage 2: course mid-way to qualifying
  - Stage 3: immediately before qualifying
- Stages are broadly defined to take account of different approaches to qualifying CA/CPA's

Progression for CA/CPA stream

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
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<tbody>
<tr>
<td>Reference material (for course work and open-book assessment)</td>
<td>Excerpts from Framework and basic IFRS principles</td>
<td>Framework, IFRS requirements and accompanying material and IFRS for SMEs</td>
</tr>
<tr>
<td>IFRS judgements and estimates</td>
<td>Awareness</td>
<td>Understanding</td>
</tr>
<tr>
<td>Integration of IFRS topics</td>
<td>Very little, if any</td>
<td>Moderate</td>
</tr>
<tr>
<td>Integration with related disciplines</td>
<td>Very little, if any</td>
<td>Moderate</td>
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</table>

Benefits of Framework-based teaching

- Provides students with a cohesive understanding of IFRSs
- Enhances the ability of students to exercise the judgements that are necessary to apply IFRSs
- Prepares students to continuously update their IFRS knowledge and competencies
Questions or comments?

Expressions of individual views by members of the IASB and their staff are encouraged. The views expressed in this presentation are those of the presenter. Official positions of the IASB on accounting matters are determined only after extensive due process and deliberation.
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Demonstrating Framework-based teaching for CA/CPA stream students

Donna Street
Professor of Accounting,
University of Dayton and
Past President and Director of Research and Educational Activities,
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Ann Tarca
Professor of Accounting,
University of Western Australia and
Academic Fellow, Education Initiative,
IFRS Foundation
Framework-based teaching...

- relates the IFRS requirements being taught to the concepts in the Conceptual Framework
- explains why some IFRS requirements do not maximise those concepts (e.g., application of the cost constraint or inherited requirements)

Reference material: PPE course work & open-book assessment

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<tr>
<td>Extracts from Framework + basic IFRS principles from Section 17 of the IFRS for SMEs or IAS 16 (e.g., see handout)</td>
<td>A Guide through IFRSs (includes full text of Framework + IFRSs and accompanying material with extensive cross-references and annotations, e.g., IFRIC agenda decisions) + the IFRS for SMEs and accompanying documents</td>
<td>Stage 2 material + Local GAAP (if any) + main principles in IASB DPs and EDs</td>
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Class material: PPE

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<tr>
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<tr>
<td>Reference material (previous slide) + notes (e.g., see handout) + video/web clips + basic tutorials (e.g., see handout)</td>
<td>Reference material (previous slide) + notes (e.g., see handout) + advanced tutorials and integrated case studies + IFRS financial statements + relevant regulatory decisions + relevant press coverage + main principles in issues being considered by IASB</td>
<td>Reference material (previous slide) + notes (e.g., see handout) + advanced tutorials and integrated case studies + IFRS financial statements + relevant regulatory decisions + relevant press coverage + IASB DPs and EDs and select agenda papers</td>
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Relate PPE accounting & reporting to objective & main concepts (pervasive)

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<th>Stage 1</th>
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<tr>
<td>Explain why relevant and faithfully represented information about PPE (particularly manufacturers and retailers) is useful to the primary user group. Reinforce with class discussion + tutorial. Assess understood.</td>
<td>Stage 1 + (don’t limit to manufacturers and retailers, eg include service industry buildings and explain in more detail). Reinforce teaching with class discussion + tutorial. Assess understood.</td>
<td>Reinforce understanding and develop competence in making the judgements that are necessary to account for assets. Some ideas: - cross-cutting issues class discussions - advanced tutorials - integrated case studies - GAAP comparisons &amp; improvements.</td>
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Why PPE material first?

- As jurisdictions implement IFRSs many find that the accounting for PPE is a special challenge (Upton, IASB’s Director of International Activities, 2010)
  - IFRS requirements for PPE require many estimates and judgements
  - previous accounting frequently influenced or governed by tax requirements or central government planning
  - even where previous accounting is based on a similar Framework, those requirements often rules-based (e.g., industry specific guidance)
Identifying PPE

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<tr>
<th>Stage 1</th>
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<th>Stage 3</th>
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<tbody>
<tr>
<td>1. <strong>Classification:</strong> is the item an asset?</td>
<td>1. <strong>Focus on teaching the judgements necessary to identify PPE.</strong> Some examples: - land and buildings (inventory, investment property or PPE?) - farm land with plantation, guard dogs, bird breeder, bird breeding zoo (IAS 16, IAS 40 or IAS 41?) - when does PPE become held for sale (IAS 16 or IFRS 5?) - asset? (IFRIC 18 Transfer of Assets from a Customer) - when is PPE reclassified to another asset sub-classification?</td>
<td>Reinforce understanding and develop competence in sub-classifying assets. Some ideas: - cross-cutting issues class discussions - advanced tutorials - integrated case studies.</td>
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</table>

Reinforce understanding and develop competence in sub-classifying assets. Some ideas:
- cross-cutting issues class discussions
- advanced tutorials
- integrated case studies.

Unit of account for PPE

<table>
<thead>
<tr>
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<tr>
<td>1. <strong>IAS 16 does not prescribe the unit of measure for recognition of PPE (an item of PPE) consequently use judgement.</strong> Focus on teaching the judgements necessary to identify an item of PPE. Some examples: - immaterial items - individually insignificant items (eg moulds, tools &amp; dies?)</td>
<td>Reinforce understanding and develop competence in identifying the unit of account. Some ideas: - cross-cutting issues class discussions - advanced tutorials - integrated case studies - GAAP comparisons &amp; improvements.</td>
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Reinforce understanding and develop competence in identifying the unit of account. Some ideas:
- cross-cutting issues class discussions
- advanced tutorials
- integrated case studies
- GAAP comparisons & improvements.

Recognition of PPE

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<tr>
<th>Stage 1</th>
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<tr>
<td>1. <strong>PPE asset recognition principle is from the Framework:</strong> - probable FEBs associated with the item will flow to the entity - cost of the item can be measured reliably (IAS 16.7)</td>
<td>1. <strong>Focus on teaching the judgements necessary to identify PPE.</strong> Some examples: - immaterial items - backup generator at hospital - day-to-day servicing - replacement parts - major inspections</td>
<td>Reinforce understanding and develop competence in making the judgements necessary to recognise assets. Some ideas: - cross-cutting issues class discussions - advanced tutorials - integrated case studies - GAAP comparisons &amp; improvements.</td>
</tr>
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</table>

Reinforce understanding and develop competence in making the judgements necessary to recognise assets. Some ideas:
- cross-cutting issues class discussions
- advanced tutorials
- integrated case studies
- GAAP comparisons & improvements.

Measurement of PPE

- Because measuring PPE requires **significant estimates and judgements,** it is important that students be taught those requirements in a way that prepares them to make those judgements and estimates.

Measurement concept:

- Measurement is the process of determining monetary amounts at which elements are recognised and carried. (¶4.54)
- To a large extent, financial reports are based on estimates, judgements and models rather than exact depictions. The Framework establishes the concepts that underlie those estimates, judgements and models (¶OB11)
- IASB guided by objective and qualitative characteristics when specifying measurements.
IFRS measurements for some assets

- PPE and intangible assets: initial = cost, then
  - cost model (cost-depreciation-impairment) or
  - revaluation model (fair value-depreciation-impairment)
- Investment property: initial = cost, then
  - cost model (cost-depreciation-impairment) or
  - fair value model (fair value through profit or loss)
- Inventories: initial = cost, then
  - lower of cost or net realisable value (entity specific value)
- Biological assets that relates to agricultural activity
  - fair value less costs to sell (if impracticable then cost model)

Explain reasons for different measurements

Measurement of PPE at recognition

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<tr>
<th>Stage 1</th>
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<tbody>
<tr>
<td>At initial recognition: cost = cash price equivalent at recognition date. Cost comprises:</td>
<td>Stage 1 + focus on judgements to measure cost. Some egs:</td>
<td>Reinforce understanding &amp; develop competence in judgements to measure cost. Some ideas:</td>
</tr>
<tr>
<td>- purchase price</td>
<td>- self constructed</td>
<td>- cross-cutting issues class discussions</td>
</tr>
<tr>
<td>- costs directly attributable to bring item to location and condition necessary for it to be capable of operating as intended by mgmt.</td>
<td>- borrowing costs</td>
<td>- advanced tutorials</td>
</tr>
<tr>
<td>- initial estimate of costs of dismantling and removing and restoring the site.</td>
<td>- dismantling etc</td>
<td>- integrated case studies</td>
</tr>
<tr>
<td>Create awareness of judgements.</td>
<td>- deferred payments</td>
<td></td>
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<tr>
<td>Accounting policy choice: cost model or revaluation model. Which model provides primary users most useful information? Teach the theory and mechanics of depreciation. Reinforce with class discussion + tutorial. Assess understood.</td>
<td>Explain why exceptions:</td>
<td></td>
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<tr>
<td>Stage 1 + focus on teaching the judgements necessary to measure PPE after initial recognition. Some examples:</td>
<td>leases (IAS 17) government grants (IAS 20)</td>
<td></td>
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<tr>
<td>- useful life</td>
<td>- depreciation method</td>
<td></td>
</tr>
<tr>
<td>- residual value</td>
<td>for revaluation (fair value if no recent transactions)</td>
<td></td>
</tr>
<tr>
<td>- depreciation method</td>
<td>for impairment (fair value less costs to sell)</td>
<td></td>
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<tr>
<td>Reinforce understanding and develop competence in making the judgement necessary to measure assets. Some ideas:</td>
<td></td>
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<tr>
<td>- unit of measure for depreciation is different from that for an item of PPE. By depreciating significant parts of an item of PPE separately, depreciation more faithfully represents the consumption of the assets service potential. (IAS 16.28)</td>
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Allocating depreciation: concepts

- Information about an entity's financial performance in a period, reflected by changes in economic resources (eg PPE) is useful in assessing the entity's past and future ability to generate net cash inflows (see ¶OB18)
- Expenses are decreases in economic benefits during an accounting period in the form of depletions of assets… (¶4.25)
- Depreciation represents the consumption of the assets service potential in the period.
  - land with an indefinite useful life is not depreciated because its service potential does not reduce with time

Allocating depreciation: application guidance (1)

- Depreciable amount =
  - cost model: historical cost less residual value
  - revaluation model: fair value less residual value
- Residual value =
  - amount that the entity would currently obtained from disposal of asset (less estimated disposal costs) if the asset were already of the age and in the condition expected at the end of its useful life

Allocating depreciation: principle

- Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life (IAS16.6).
  - essentially a cost allocation technique (IAS16.BC29)
- Systematic allocation (application guidance):
  - Depreciation method must closely reflects the pattern in which the asset’s future economic benefits are expected to be consumed by the entity.
  - Unit of measure for depreciation is different from that for an item of PPE. By depreciating significant parts of an item of PPE separately, depreciation more faithfully represents the consumption of the assets service potential. (IAS 16.28)
Allocating depreciation: application guidance (2)

• Useful life (entity specific) =
  – the period over which the asset is expected to be available for use by the entity; or
  – the number of production or similar units expected to be obtained from the asset by the entity.

• Consequently, depreciation continues when idle (if useful life = period)

• However, depreciation ceases when classified as held for sale because IFRS 5 measurement is essentially a process of valuation, rather than allocation (IFRS5.BC29).

Derecognition of assets

• Derecognition of an asset refers to when an asset previously recognised by an entity is removed from the entity’s statement of financial position
  – Derecognition requirements are specified at the standards level.
  – Derecognition does not necessarily occur when the asset no longer satisfies the conditions specified for its initial recognition (ie derecognition does not necessarily coincide with the loss of control of the asset).

Derecognition of PPE

Stage 1 Stage 2 Stage 3

- PPE is derecognised:
  - on disposal, or
  - when no future economic benefits are expected from its use or disposal (IAS16.67)

Stage 1 + focus on teaching the judgements necessary to determine when to derecognise PPE. For example:
  - applying the criteria for the sale of goods in IAS 18 to determine when to recognise the sale of an item of PPE (see IAS16.69 and BC34)

Reinforce understanding and develop competence in making the judgements necessary to derecognise assets. Some ideas:
  - cross-cutting issues class discussions
  - advanced tutorials
  - integrated case studies
  - GAAP comparisons & improvements

Presentation and disclosure

• Objective of financial reporting

• Presentation: financial statements portray financial effects of transactions and events by:
  – grouping into broad classes (the elements, eg asset)
  – sub-classify elements (eg assets sub-classified by their nature or function in the business)

• IAS 1
  – application of IFRSs with additional disclosures when necessary results in a fair presentation (faithful representation of transactions, events and conditions)
  – don’t offset assets & liabilities or income & expenses

Presentation and disclosure of PPE

Stage 1 Stage 2 Stage 3

Statement of financial position: why present PPE separately from other assets (relate to objective + QCs)?

Statement of comprehensive income or notes: why present depreciation separately from other expenses (relate to objective + QCs)?

Offsetting: why is gain (or loss) on disposal of PPE presented net?

Stage 1 + focus on teaching the judgements necessary to present and disclose PPE, eg:
  - identify (see slide 11)
  - sub-classify PPE into separate classes (grouping of assets of a similar nature and use in the entity’s operations, eg how many classes of land—vacant land, land on which buildings are situated and landfill site?)

Reinforce understanding and develop competence in presenting assets and related income & expenses. Some ideas:
  - cross-cutting issues class discussions
  - advanced tutorials
  - integrated case studies

Transitional provisions and effective dates: concepts and principles

• The concepts = objective of financial reporting and qualitative characteristics, particularly comparability (see Framework)

• The principle for changes in accounting policies (see IAS 8) =
  – retrospective application of new accounting policy
  – voluntary policy change only if change results in reliable and more relevant information
  – disclose the effects of retrospective application
Transitional provisions and effective dates: rules

• For cost-beneficial or to avoid abuse from the benefit of hindsight:
  – transitional provisions for new and amended IFRSs (IAS 8.19 and IAS 16.80–81E)
  – initial accounting for a change from cost model to revaluation model is accounted for as a revaluation (IAS 8.17)
  – impracticability exception (practical expedient)
  – specified disclosures (IAS 8)

Questions or comments?

Expressions of individual views by members of the IASB and their staff are encouraged. The views expressed in this presentation are those of the presenter. Official positions of the IASB on accounting matters are determined only after extensive due process and deliberation.
A Framework-based approach to teaching accounting for property, plant and equipment

Michael J C Wells
Director, IFRS Education Initiative, IFRS Foundation

Ann Tarca
Academic Fellow, IFRS Education Initiative, IFRS Foundation
Winthrop Professor, Business School, University of Western Australia.

This article is a ‘work in process’. After benefiting from further development and reviews, including comments from those who attended a series of workshops on a Framework-based approach to teaching International Financial Reporting Standards (IFRSs) organised by the IFRS Foundation and others (including the American Accounting Association (AAA), the International Association for Accounting Education and Research (IAAER), the World Bank and the Brazilian Development Bank (BNDES)). After taking into account comments from the delegates at those workshops the authors intend to submit the article for possible publication in a special edition of a journal dedicated to teaching IFRSs.

Introduction

The aim of this article is to explain what is meant by Framework-based teaching and to explain why it is important and useful for educators. We focus on the IFRS requirements for property, plant and equipment (IAS 16 Property, Plant and Equipment and Section 17 Property, Plant and Equipment of the IFRS for Small and Medium-sized Entities (SMEs)) and demonstrate how a Framework-based approach could be used in the three stages of the learning continuum typically followed by Chartered Accountant (CA)/Certified Public Accountant (CPA) stream students. We include examples of teaching material for Stages 1 and 2 (students’ summary notes and reference materials, discussion questions and assignment activities).

IFRSs and accounting for property, plant and equipment

As jurisdictions implement IFRSs, many find that the accounting for property, plant and equipment (PPE) is a special challenge (Upton, W. Depreciation and IFRS, 2010). Their previous accounting was often influenced or governed by tax or central government planning, rather than financial reporting principles designed to inform capital allocation decisions. Other jurisdictions, where accounting is based on concepts similar to those that underlie IFRSs, have developed prescriptive rules and industry specific guidance that replace the use of judgement in accounting for PPE. Because IFRSs are principle-based standards designed for use globally and across all industries they do not include such prescriptive rules and industry specific guidance. Consequently, applying IFRSs requires the use of estimates and other judgements. This article
shows how Framework-based teaching can be used to better prepare students studying IFRSs to make the estimates and other judgements that are necessary to apply IAS 16 and Section 17 of the IFRS for SMEs.

The Conceptual Framework

The objective of the IASB’s Conceptual Framework for Financial Reporting (Conceptual Framework) is to facilitate the consistent and logical formulation of IFRSs (see paragraph 8 of the Preface to IFRSs). In other words, the Conceptual Framework sets out the agreed concepts on which the IASB bases IFRSs. Consequently, most IFRS requirements are consistent with the concepts set out therein. However, application of the cost constraint\(^{(1)}\) continues to result in IFRS requirements that do not maximise the qualitative characteristics or other main concepts in the Conceptual Framework.

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.\(^{(2)}\) Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (see paragraph OB2 of the Conceptual Framework). To assess an entity’s prospects for future net cash inflows, existing and potential investors, lenders and other creditors need information about the resources of the entity, claims against the entity, and how efficiently and effectively the entity’s management and governing board have discharged their responsibilities to use the entity’s resources (see paragraph OB4 of the Conceptual Framework).

The main concepts in the Conceptual Framework that flow from the objective of general purpose financial reporting include the qualitative characteristics, element definitions and the accrual basis of accounting. Because other aspects of the Conceptual Framework flow logically from the objective of general purpose financial reporting, a good understanding of the objective is fundamental to Framework-based teaching.

Framework-based teaching

Framework-based teaching relates the concepts in the Conceptual Framework to the particular IFRS requirements being taught. In other words, Framework-based teaching relates the accounting and reporting of the entity’s economic resources, claims, and changes in resources and claims against the entity, and other transactions and events, to the objective of financial statements and other main concepts that flow from that objective.

To use Framework-based teaching, students must first be taught the objective of financial reporting and the other main concepts set out in the Conceptual Framework and the economics of a particular transaction or event to be accounted for. Then the class can reflect on what information about the resulting economic resources of the entity or resulting claims against the entity (and changes in those resources and claims) would be useful to existing and potential investors, lenders and other creditors to help them assess the prospects for future net cash inflows to the entity (ie students should relate the economic phenomenon to the objective of financial reporting). Only then are they taught the relevant IFRS requirements. Finally students could also be taught the main principles in IASB discussion papers or proposed standards (exposure drafts)

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\(^{(1)}\) When setting IFRSs the IASB assesses whether the benefits of reporting particular information are likely to justify the costs incurred to provide that information (paragraph QC38 of the Conceptual Framework).

\(^{(2)}\) Many of those users cannot require the reporting entity to provide information directly to them and must rely on general purpose financial reports for much of the information they need (paragraph OB5 of the Conceptual Framework). Consequently, they are the primary users of financial statements.

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that, if adopted, would replace the current IFRS requirements. Using a Framework-based approach, teaching can easily be enriched by discussing the extent to which the proposed requirements are consistent with the objective and concepts set out in the Conceptual Framework. Similarly, in jurisdictions in which IFRSs co-exist with local general purpose financial reporting standards (local GAAP) that are based on a similar conceptual framework, Framework-based teaching provides an effective and efficient basis for simultaneously teaching both sets of standards.

Because the objective of the Conceptual Framework is to facilitate the consistent and logical formulation of IFRSs, adopting a Framework-based approach to teaching IFRSs provides students with a cohesive understanding of IFRSs by relating the requirements in IFRSs to the objective of IFRS financial information and the concepts that underlie IFRSs and inform their development. Furthermore, IFRS teachers should explain why, for some IFRS requirements, the IASB concluded that it was cost-beneficial not to maximise the qualitative characteristics or other main concepts in the Conceptual Framework. The IASB’s reasons are usually set out in the Basis for Conclusions that accompanies, but does not form part of, the IFRS.

To a large extent, financial statements that conform to IFRSs are based on estimates, judgements and models rather than exact depictions. Because the Conceptual Framework establishes the concepts that underlie those estimates, judgements and models, it provides a basis for the use of judgement in resolving accounting issues. For example, if there is no explicit IFRS requirement that applies to a transaction, other event or condition, management uses its judgement to develop and apply an accounting policy that results in information that is relevant to the economic decision-making needs of users and is reliable (ie resulting in a neutral and faithful representation of the financial position, financial performance and cash flows of the entity reflecting the economic substance of the economic phenomenon) (see paragraph 10 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors). The second level of the hierarchy for applying that judgement requires that management refer to and consider the definitions, recognition criteria and measurement concepts in the Conceptual Framework (see paragraph 11 of IAS 8).

For the reasons set out above, Framework-based teaching should also better prepare students to continuously update their IFRS knowledge and competencies in the context of life-long learning.

Framework-based teaching can be used at all levels at which IFRSs are taught. However, the amount of IFRS requirements covered and extent of integration with other IFRS topics and related disciplines (eg finance and tax) would vary depending upon the objectives of the course and the level at which IFRSs are taught. Similarly, the teaching objectives regarding IFRS estimates and other judgements would progress from awareness through understanding to competence depending upon the objectives of the course and the level at which IFRSs are taught. The table below maps the progression of Framework-based teaching of CA/CPA stream students at three stages:

- Stage 1: a student’s first financial reporting course;
- Stage 2: a financial reporting course mid-way to qualifying as a CA or CPA; and
- Stage 3: a course immediately before qualifying as a CA or CPA.

The stages are necessarily broadly defined to take into account the many different approaches to qualifying as CAs and CPAs worldwide.
<table>
<thead>
<tr>
<th>Reference material: standards and other pronouncements</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extracts from the Conceptual Framework and basic IFRS principles</td>
<td>The Conceptual Framework, IFRS principles and selected IFRS rules and the Basis for Conclusions on the requirements being taught</td>
<td>The Conceptual Framework, IFRS principles and rules, the Basis for Conclusions on IFRSs, Local GAAP requirements (if any) and core principles in IASB DPs and EDs</td>
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<tr>
<th>Suggested class material</th>
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<tbody>
<tr>
<td>• Reference material (above);</td>
</tr>
<tr>
<td>• notes (see below for example of notes for property, plant and equipment (PPE)); and</td>
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<tr>
<td>• tutorials (eg see below for example of a tutorial for property, plant and equipment (PPE));</td>
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<tr>
<th>IFRS judgements and estimates</th>
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<tbody>
<tr>
<td>Create awareness of IFRS judgements and estimates.</td>
</tr>
<tr>
<td>Some ideas:</td>
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<tr>
<td>- video/web clips</td>
</tr>
<tr>
<td>- class discussions</td>
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<tr>
<td>- basic tutorials</td>
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<tr>
<th>IFRS judgements and estimates</th>
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</thead>
<tbody>
<tr>
<td>Develop understanding of selected IFRS judgements and estimates.</td>
</tr>
<tr>
<td>Some ideas:</td>
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<tr>
<td>- video/web clips</td>
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<tr>
<td>- class discussions</td>
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<td>- advanced tutorials</td>
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<tr>
<td>- group competitions</td>
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<tr>
<td>- extracts from published financial statements</td>
</tr>
<tr>
<td>- select regulatory decisions</td>
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<tr>
<td>- select press reports</td>
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<table>
<thead>
<tr>
<th>Integration of IFRS topics</th>
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<tbody>
<tr>
<td>Very little, if any</td>
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<table>
<thead>
<tr>
<th>Integration with other accounting related disciplines (eg auditing, finance, tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very little, if any</td>
</tr>
</tbody>
</table>

The views expressed in this article are those of the authors and are not necessarily those of the IFRS Foundation or the IASB. Official positions of the IFRS Foundation and the IASB are determined only after extensive due process and deliberation.
The table below maps the progression of learning for CA/CPA stream students when a Framework-based approach to teaching is used:

<table>
<thead>
<tr>
<th></th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference material:</td>
<td>Stage 1: Extracts from Conceptual Framework: objective, qualitative</td>
<td>Conceptual Framework and IAS 16 and/or Section 17 of the IFRS for SMEs</td>
<td>Conceptual Framework: IASs 16, 23 and 36, IFRS 5 and IFRIC 1; Basis for</td>
</tr>
<tr>
<td>Standards and other</td>
<td>characteristics, element definitions, recognition criteria. Main</td>
<td>Basis for Conclusions on relevant IFRSs; main principles in IASB</td>
<td></td>
</tr>
<tr>
<td>pronouncements</td>
<td>principles in IAS 16: definition of PPE, cost, depreciation, revaluation,</td>
<td>exposure drafts and discussion papers; and local GAAP.</td>
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<tr>
<td></td>
<td>derecognition.</td>
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<tr>
<td>IFRS judgements and</td>
<td>Create awareness of the basic estimates required for depreciation (eg</td>
<td>Facilitate the development of an understanding of the judgements and</td>
<td>Facilitate the development of competence in making IFRS estimates and</td>
</tr>
<tr>
<td>estimates</td>
<td>depreciation method, useful life and residual value.</td>
<td>estimates including those described in pages 25 to 27 of Module 17 of</td>
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<td></td>
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<td>the IFRS for SMEs by using hypothetical examples, published financial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>statements, published regulatory decisions, press reports, etc.</td>
<td></td>
</tr>
<tr>
<td>Integration of IFRS</td>
<td>Very little, if any.</td>
<td>Some of IFRSs 3 &amp; 5, IASs 1, 8, 10, 12, 17, 20, 21, 27, 31, 34, 36, 37</td>
<td>Significant integration commonly including many of IFRSs 3 &amp; 5, IASs 1,</td>
</tr>
<tr>
<td>topics</td>
<td></td>
<td>&amp; 38, IFRICs 1 &amp; 18 and SICs 21 &amp; 25</td>
<td>8, 10, 12, 17, 20, 21, 27, 31, 34, 36, 37 &amp; 38, IFRICs 1 &amp; 18 and SICs</td>
</tr>
<tr>
<td>Integration with</td>
<td></td>
<td></td>
<td>21 &amp; 25.</td>
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<tr>
<td>other accounting</td>
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<td>related disciplines</td>
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Stage 1: A student’s first financial reporting course

Stage 1: Introduction

In this section we present material that could be used in Stage 1 classes. First, we include extracts from the IASB’s Conceptual Framework and the main principles in IAS 16 Property, Plant and Equipment and Section 17 Property, Plant and Equipment of the IFRS for SMEs that are relevant to understanding how to account for PPE. Second, we include notes for students about accounting for PPE, including a series of examples and a set of discussion questions that could be used in class. Third, we include tutorial questions and solutions that could be used by instructors to explore the main topics with students.

Stage 1: Reference material

Extracts from the IASB’s Conceptual Framework

The Conceptual Framework sets out the concepts that underlie the preparation and presentation of financial statements for external users. To a large extent, financial reports are based on estimates, judgements and models rather than exact depictions. The Conceptual Framework establishes the concepts that underlie those estimates, judgements and models, and forms the goal towards which the Board and preparers of financial reports strive (see paragraph OB11 of the Conceptual Framework).

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (see paragraph OB2 of the Conceptual Framework). Other aspects of the Conceptual Framework (a reporting entity concept; the qualitative characteristics of, and the constraint on, useful financial information; elements of financial statements; recognition; measurement; presentation and disclosure) flow logically from the objective (see paragraph OB1 of the Conceptual Framework).

General purpose financial reports provide information about the financial position of a reporting entity, which is information about the entity’s economic resources and the claims against the reporting entity. Financial reports also provide information about the effects of transactions and other events that change a reporting entity’s economic resources and claims. Both types of information provide useful input for decisions about providing resources to an entity (see paragraph OB12 of the Conceptual Framework).

Information about a reporting entity’s financial performance during a period, reflected by changes in its economic resources and claims other than by obtaining additional resources directly from investors and creditors, is useful in assessing the entity’s past and future ability to generate net cash inflows. That information indicates the extent to which the reporting entity has increased its available economic resources, and thus its capacity for generating net
cash inflows through its operations rather than by obtaining additional resources directly from investors and creditors (see paragraph OB18 of the Conceptual Framework).

The qualitative characteristics of useful financial information (relevance, faithful representation, comparability, verifiability, timeliness and understandability) identify the types of information that are likely to be most useful to the existing and potential investors, lenders and other creditors for making decisions about the reporting entity on the basis of information in its financial report (financial information) (see paragraph QC1 of the Conceptual Framework).

If financial information is to be useful, it must be relevant and faithfully represent what it purports to represent. Relevant financial information is capable of making a difference in the decisions made by users (see paragraph QC6 of the Conceptual Framework). To be a perfectly faithful representation, a depiction would have three characteristics. It would be complete, neutral and free from error (see paragraph QC12 of the Conceptual Framework).

The usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable (see paragraph QC4 of the Conceptual Framework).

Financial statements portray the financial effects of transactions and other events by grouping them into broad classes according to their economic characteristics. These broad classes are termed the elements of financial statements. The elements directly related to the measurement of financial position in the statement of financial position are assets, liabilities and equity. The elements directly related to the measurement of performance in the statement of comprehensive income are income and expenses (see paragraph 4.2 of the Conceptual Framework, which is updated for new terms).

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity (see paragraph 4.4(a) of the Conceptual Framework). The future economic benefit embodied in an asset is the potential to contribute, directly or indirectly, to the flow of cash and cash equivalents to the entity (see paragraph 4.8 of the Conceptual Framework).

Income is increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants (see paragraph 4.25(a) of the Conceptual Framework).

Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants (see paragraph 4.25(b) of the Conceptual Framework).

### Principles in IAS 1 and the IFRS for SMEs

An entity shall not offset assets and liabilities or income and expenses, unless required or permitted by an IFRS (see paragraphs 32 of IAS 1 and 2.52 of the IFRS for SMEs).

When the accrual basis of accounting is used, an entity recognises items as assets, liabilities, equity, income and expenses (the elements of financial statements) when they satisfy the definitions and recognition criteria for those elements in the Conceptual Framework (see paragraphs 28 of IAS 1 and 2.36 of the IFRS for SMEs).
Main principles in IFRSs (IAS 16 and the IFRS for SMEs)

Definitions
Property, plant and equipment are tangible assets 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 (see paragraphs 6 of IAS 16 and 17.2 of the IFRS for SMEs).

Recognition
The cost of an item of property, plant and equipment 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 (see paragraphs 7 of IAS 16 and 17.4 of the IFRS for SMEs).

Measurement at recognition
An entity shall measure an item of property, plant and equipment at initial recognition at its cost (see paragraphs 15 of IAS 16 and 17.9 of the IFRS for SMEs).

Measurement after recognition
An entity shall choose either the cost model in paragraph 30 or the revaluation model in paragraph 31 as its accounting policy and shall apply that policy to an entire class of property, plant and equipment (see paragraph 29 of IAS 16).\(^{(3)}\)

Cost model—after recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses (see paragraph 17.30 of the IFRS for SMEs).

Revaluation model—after recognition as an asset, an item of property, plant and equipment whose fair value (ie the amount for which the asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction) can be measured reliably 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. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period (see paragraphs 6 and 31 of IAS 16).\(^{(4)}\)

Depreciation
If the major components of an item of property, plant and equipment have significantly different patterns of consumption of economic benefits, an entity shall allocate the initial cost of the asset to its major components and depreciate each such component separately over its useful life. Other assets shall be depreciated over their useful lives as a single asset. Land has

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\(^{(3)}\) The IFRS for SMEs does not permit use of the revaluation model.

\(^{(4)}\) The IFRS for SMEs does not permit use of the revaluation model.
an unlimited useful life and therefore is not depreciated (see paragraphs 17.16 of the *IFRS for SMEs* and paragraph 44 of IAS 16).

The depreciation charge for each period shall be recognised in profit or loss unless another section of this IFRS requires the cost to be recognised as part of the cost of an asset (see paragraphs 49 of IAS 16 and 17.17 of the *IFRS for SMEs*).

An entity shall allocate the depreciable amount of an asset on a systematic basis over its useful life (see paragraph 17.18 of the *IFRS for SMEs*). Depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value. An asset’s residual value is the estimated amount that an entity would currently obtain from the disposal of an 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 (see paragraph 6 of IAS 16 and the Glossary to the *IFRS for SMEs*).

An entity shall select a depreciation method that reflects the pattern in which it expects to consume the asset’s future economic benefits. The possible depreciation methods include the straight-line method, the diminishing balance method and a method based on usage such as the units of production method (see paragraphs 60 and 62 of IAS 16 and 17.22 of the *IFRS for SMEs*).

**Impairment**

At each reporting date, an entity shall determine whether an item or group of items of property, plant and equipment is impaired and, if so, how to recognise and measure the impairment loss (see paragraph 17.24 of the *IFRS for SMEs* and similar to paragraph 63 of IAS 16).

**Derecognition**

An entity shall recognise the gain or loss on the derecognition of an item of property, plant and equipment in profit or loss when the item is derecognised.(5) Gains shall not be classified as revenue (paragraphs 68 of IAS 16 and 17.28 of the *IFRS for SMEs*).

**Stage 1: Notes for students**

For some entities (particularly manufacturers and retailers) property, plant and equipment (PPE) is often a significant asset in their statements of financial position. Similarly, depreciation expense (akin to the consumption of the carrying amount of the PPE) is often a significant item in those entities’ statements of comprehensive income. Consequently, relevant (ie capable of making a difference in the decisions made by users) and faithfully represented (ie information that is complete, neutral and free from error) information about an entity’s PPE is likely to be useful to existing and potential investors, lenders and other creditors when making decisions(6) about the reporting entity. Providing relevant and faithfully represented information about an entity’s PPE in accordance with IFRSs and the *IFRS for SMEs* often requires judgement.(7)

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(5) Unless IAS 17 requires otherwise on a sale and leaseback.

(6) Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (paragraph OB2 of the *Conceptual Framework*).

(7) For students with little or no exposure to machine-intensive manufacturing, a tour/virtual tour of a machine-intensive factory is recommended. Many virtual factory tours are freely available on the internet.
Identifying PPE

Property, plant and equipment are tangible assets that:

(a) are held for use in the production or supply of goods (e.g., a retailer’s point-of-sale equipment) or services (e.g., an architect’s tools), for rental to others (e.g., a car hire’s rental fleet), or for administrative purposes (e.g., computer equipment used by an entity’s administration staff); and

(b) are expected to be used during more than one period (see paragraph 6 of IAS 16, examples added).

Note: as can be seen from the definition above PPE need not be directly involved in the manufacturing process. PPE can, for example, be used in the administration or sales functions of the business.

It is usually not difficult to identify items of PPE. First, determine whether the item is an asset and then determine whether that asset is an item of PPE.

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**Example 1: manufacturing equipment**

An entity purchased a kiln to convert clay into bricks through a baking process. The kiln is expected by the brick manufacturer to operate effectively for about 10 years before being scrapped.

*The first question—is the kiln an asset?*

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity (paragraph 4.4(a) of the *Conceptual Framework*).

The kiln is an asset of the manufacturer—it is a physical resource purchased by the manufacturer (past event) and used at the manufacturer’s discretion (control) to manufacture bricks, the sale of which is expected to result in the flow of cash (future economic benefits) from the manufacturer’s customers to the manufacturer.

*The second question—is the kiln asset an item of PPE?*

The brick manufacturer’s kiln clearly satisfies the definition of an item of PPE—it has physical form (it is tangible), it is used to convert moulded clay into bricks (held for use in production) and it is expected to be used for about 10 years (in more than one period).

*Conclusion*

The kiln asset is an item of the brick manufacturer’s PPE.

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**Example 2: retail outlet**

The brick manufacturer purchased a showroom in a location that is convenient for potential customers to view the entity’s range of bricks and in which customers place orders for the entity’s bricks. The manufacturer expects to market its bricks from the showroom for about 50 years.
The views expressed in this article are those of the authors and are not necessarily those of the IFRS Foundation or the IASB. Official positions of the IFRS Foundation and the IASB are determined only after extensive due process and deliberation.

The first question—is the showroom an asset?

The showroom is an asset of the manufacturer—it is a physical resource (a brick, mortar, wood and glass structure) purchased by the manufacturer (past event) and used at the manufacturer’s discretion (control) as a showroom for the entity’s bricks. The sale of those bricks is expected to result in the flow of cash (future economic benefits) from the manufacturer’s customers to the manufacturer.

The second question—is the showroom asset an item of PPE?

The brick manufacturer’s showroom clearly satisfies the definition of an item of PPE—it is made of bricks, mortar, wood and glass (it is tangible), is used to market the entity’s bricks to potential customers (held for use in the supply of goods) and it is expected to be used for about 50 years (in more than one period).

Conclusion

The showroom asset is an item of the brick manufacturer’s PPE.

Example 3: administration building

The brick manufacturer purchased a building from which to administer the entity’s business (head office building). The head office building houses the entity’s accounting and human resources staff. The manufacturer expects to use its head office building for about 50 years.

The first question—is the head office building an asset?

The head office building is an asset of the manufacturer—it is a physical resource (a brick, mortar, wood and glass structure) purchased by the manufacturer (past event) and used at the manufacturer’s discretion (control) to house its accounting and human resources staff, whose work is expected to result in the flow of cash (future economic benefits) from the manufacturer’s customers to the manufacturer. In other words, the head office building houses those that administer the operations that indirectly contribute to processes that ultimately result in the receipt of cash from the entity’s customers for the sale of bricks.

The second question—is the head office building asset an item of PPE?

The brick manufacturer’s head office building clearly satisfies the definition of an item of PPE—it is made of bricks, mortar, wood and glass (it is tangible), it is used to house those who administer the entity’s manufacturing operations (held for administration purposes) and it is expected to be used for about 50 years (in more than one period).

Conclusion

The head office building asset is an item of the brick manufacturer’s PPE.

Reflect on useful information about PPE

Now that you know what PPE is, consider the information about an entity’s PPE, and any changes in that PPE, that would be useful to existing and potential investors and creditors.

For example, one could consider the following questions:

- What is the economic rationale for acquiring PPE? In other words, why do manufacturers buy factories, why do retailers buy retail outlets and why do many in
the service industry buy the building from which they operate? How do entities generate net cash inflows from PPE?

- When existing and potential investors, lenders and other creditors make decisions about the reporting entity, with regards buying, selling or holding equity and debt instruments and providing or settling loans and other forms of credit, what information about an entity’s PPE do you think would be capable of making a difference? For example, if you were considering buying shares in an entity that held significant PPE, what information about the entity’s PPE would you find most useful in assessing the entity’s prospects for future net cash inflows?
- Can that information be faithfully represented (ie complete, neutral and free from error) and is it cost-beneficial to do so?

Now that you have thought about what information about an entity’s PPE is useful to its existing and potential investors and creditors, consider the extent to which the main principles of accounting for PPE in accordance with IFRSs (as set out below) meet the objective of general purpose financial reporting. Also consider the estimates and other judgements that must be made in presenting that financial information about PPE.

Recognition of PPE

The recognition principle—an item of PPE is recognised as an asset (in other words, it is included in the statement of financial position) when:

(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 reliably measured (see paragraph 7 of IAS 16).

It is usually not difficult to determine when an item of PPE must be recognised.

The first recognition criterion is usually satisfied when the PPE first satisfied the definition of an asset of the entity (see above), because the ultimate purpose for which entities usually acquire PPE is to generate income directly (eg by using a machine to manufacture goods for sale) or indirectly (eg an entity’s head office building houses the staff who administer the business that generates the cash inflows) from their use. In other words, management of a business would usually not purchase PPE unless it is probable that in using it future economic benefits will flow to the business.

The second recognition criterion is also usually satisfied when the item of PPE first meets the definition of an asset of the entity (see above). In some cases, the cost of an item of PPE can be measured precisely (eg when an entity acquires a ready-to-use photocopier for use by its administration staff in exchange for CU1,200 cash). In other cases, the cost must be estimated. For example, the cost of a retail outlet constructed (by a brick manufacturer) would include the cost of the self-manufactured bricks used (the cost of those bricks includes numerous estimates, eg an allocation of fixed production overhead including depreciation of the kiln) and borrowing costs allocated in accordance with IAS 23 Borrowing Costs, to mention but a few. However, it is important to remember that the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability (see paragraph 4.41 of the Conceptual Framework). Consequently, such estimates do not prevent recognition as an asset.
Measurement of PPE

An item of PPE is initially measured at its cost. It is usually not difficult to measure the cost of an item of PPE. If the brick manufacturer purchased a ready-to-use kiln from a portable kiln supplier in exchange for cash on delivery, then the cost of the kiln is the amount of cash paid. However, if the brick manufacturer constructed a bespoke (sometimes called custom-made) kiln for occupation by the entity’s staff, then its cost would be more difficult to determine. The cost of the custom-made kiln includes all costs directly attributable to bringing the kiln to the location and condition necessary for it to operate as intended by management, for example, direct material used in construction, labour, site preparation, installation, assembly and testing of functionality. Significant estimates and other judgements may be necessary in determining some components of the cost of self-constructed items.

An item of property, plant and equipment (except land) has either a limited period over which the asset is expected to be economically usable or a limited number of production units that can be expected to be obtained from the asset. Consequently, the cost (or value) of an item of PPE is recognised as an expense (or as part of the cost of another asset, eg inventory) as it is consumed by the entity. For example, if an entity pays CU1,000 for a machine that is expected to make 100 units of product before being scrapped,\(^{(8)}\) CU10 depreciation (ie one hundredth of CU1,000) is allocated from the machine to each unit of inventory produced (a separate asset).

If the entity expects to recover part of the carrying amount of the machine (eg after it has produced 80 units) through the sale of the machine (rather than through the sale of the goods produced by that machine), then the amount of the machine that is allocated to depreciation is reduced by the estimated amount that the entity would currently (ie today) obtain from the disposal of the machine if it were already of the age and in the condition expected at the anticipated time of sale (say CU100). In this example depreciation of CU11 (ie one eighth of CU1,000 cost less CU120 residual value) is allocated from the machine to each unit of inventory produced (a separate asset) and the remaining carrying amount is derecognised when the machine is sold. The useful life of the machine is 80 units—the number of production units expected to be obtained from the asset by the entity (or, in other cases, the period over which an asset is expected to be available for use by the entity).

So far these notes have described the cost model of measuring PPE after initial recognition. However, PPE with fair value that can be measured reliably can be measured after initial recognition using the revaluation model (this is an accounting policy choice—see paragraph 31 of IAS 16). Fair value is a current measure—the amount today for which the asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction (paragraph 6 IAS 16). The revalued amount is the asset’s fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

Derecognition

If the machine is sold for CU130 when its carrying amount is CU120, the entity derecognises the CU120 carrying amount of the machine (asset) and recognises CU130 increase in cash (asset) and income of CU10 (described as a gain on the sale of PPE) in comprehensive income. Recognising income at the net amount (CU10, ie CU130 less CU120) rather than the

\[^{(8)}\] Note: this is a judgement.
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*Significant estimates and other judgements*

To a large extent, financial reports are based on estimates, judgements and models rather than exact depictions (paragraph OB11 of the *Conceptual Framework*). Providing relevant information about an entity’s PPE requires estimates and other judgements. For example, measuring the cost of an item of PPE (particularly if it is self-constructed) requires many estimates. The subsequent allocation of depreciation involves further judgements and estimates including:

1. allocating the cost of the asset to particular major components;
2. determining the most appropriate depreciation method;
3. estimating useful life; and
4. estimating residual value.

As explained in the notes below, none of the judgements listed above are free of value judgements and choices:

1. Only if the major components of an item of PPE have significantly different patterns of consumption of economic benefits does an entity allocate the initial cost of the asset to its major components and depreciate each such component separately over its useful life. For example, it would be appropriate to depreciate separately the airframe and engines of an aircraft when the significant components have different useful lives because depreciating the aircraft as a whole using an approximation technique (such as a weighted average useful life for the item as a whole) would not result in depreciation that *faithfully represents* an entity’s expectations for the significant parts.

2. An entity must select a depreciation method that reflects the pattern in which it expects to consume the asset’s future economic benefits. Possible depreciation methods include the straight-line method, the diminishing balance method and a method based on usage, such as the units of production method.

3. ‘Useful life’ refers to the period that the asset is expected to be used by the entity. Consequently, that period can be shorter than (but no longer than) an asset’s total economic life—the period over which an asset is expected to be economically usable by one or more users. For example, if an entity expects to use a photocopier for two years (measured from the date of purchase) but the photocopier could be used by one or more users for five years, then the photocopier’s useful life is two years and its economic life is five years.

4. The residual value of an item of PPE is calculated in the following way: if the item was at the end of its useful life today, and was in the condition expected at the end of its useful life, what would the entity receive today from selling that item (net of disposal costs)? If there is not an active market for such items of PPE, then judgement is used to estimate an item’s residual value.
Conclusion

Information about the assets that an entity holds for use in production, to supply goods or for administration is useful to existing and potential investors, lenders and other creditors in making decisions about whether to buy, sell or hold that entity’s shares, or whether to provide credit or require settlement of existing credit. Providing relevant and faithfully represented information about PPE requires significant estimates and other judgements (eg allocating depreciation requires judgements about allocating the cost of the asset to specific major components, determining the most appropriate depreciation method, estimating its useful life and estimating its residual value).

Discussion questions

For each of the following four scenarios, answer these questions:

(a) What information about that entity’s PPE would you find useful?
(b) Why do you think that information would be useful?

Scenario 1: you are deciding whether to buy shares in a machine-intensive manufacturing business.

Scenario 2: you are deciding whether to renew a loan to a business that develops computer programs. That business’ only significant item of PPE is the building that it owns and from which it operates.

Scenario 3: you are deciding whether to supply envelopes (that you manufacture) on credit to a mailing house. The business’ only significant item of PPE is the building that it owns and from which it operates.

Scenario 4: you are deciding whether to sell shares that you have held for more than a decade in a cattle farming business. The business’ only significant item of PPE is the farmland that it purchased over 20 years ago in an area that is now surrounded by the financial centre of a rapidly developing emerging economy.
Stage 1: Tutorial on accounting for property, plant and equipment

Test your knowledge of the requirements for accounting for property, plant and equipment by completing the tutorial below.

Once you have completed the tutorial check your answers against those at the end of the tutorial.

An entity owns and operates a ferry that transports passengers, their motor vehicles and goods between the mainland and an island. The ferry service is the main business of the entity.

On 1 January 20X1 the entity purchases a new ferry for CU1,000,000 cash. The ferry comprises two main components—the main structure (allocated cost CU800,000 and an estimated remaining useful life of 20 years with no residual value) and the engine (allocated cost CU200,000 and an estimated remaining useful life of 10 years with no residual value).

The entity depreciates the ferry using the straight-line method.

On 31 December 20X4 a storm severely damages the engine. Consequently, the entity scraps the engine. On 1 January 20X5 the entity replaces the engine at a cost of CU300,000. The new engine is expected to propel the ferry for the remaining useful life of the ferry, after which the ferry and the engine will be scrapped.

On 31 December 20X5, in response to an unsolicited offer, the entity disposes of the ferry for CU610,000.

Part A:
What information about that entity’s ferry would a potential investor find useful? Why do you think that information would be useful?

Part B:
Is the ferry an asset of the entity?

Part C:
Describe how the ferry satisfies the definition of property, plant and equipment.

Part D:
Prepare accounting entries to record the ferry in the accounting records of the entity from 1 January 20X1 to 31 December 20X5.

Part E:
List some of the estimates and judgements that the management of the entity would have made in accounting for the ferry.
Stage 1: Answer to tutorial questions on accounting for property, plant and equipment

Part A:

What information about that entity’s ferry would a potential investor find useful? Why do you think that information would be useful?

A potential investor must decide whether to buy shares in the entity that owns and operates the ferry. To inform that decision, the potential investor assesses the potential returns from investing in the entity that owns and operates the ferry. Those potential returns depend on the entity’s prospects for future net cash inflows. Consequently, the potential investor assesses the amount, timing and uncertainty of (or the prospects for) future net cash inflows to the entity.

To make that assessment a potential investor needs information about the resources of the entity (in this case the ferry and the entity’s other assets), claims against the entity and how efficiently and effectively the entity’s management and governing board have discharged their responsibilities to use the entity’s resources (paragraph OB4 of the Conceptual Framework).

Relevant information (ie information capable of making a difference in the investment decision) about the ferry asset that can be faithfully represented (ie information that is complete, neutral and free from error) would be useful to a potential investor when deciding whether to invest in (buy shares in) the entity that owns and operates the ferry.

The entity generates income (ultimately cash inflows) by using its ferry (an asset) to transport passengers, their vehicles and goods between the mainland and an island. Consequently, the ferry is likely to be the entity’s most significant asset and the depreciation expense (akin to the consumption of the carrying amount of the ferry) is likely to be significant. The gross income (revenue) from operating the ferry and the costs of operating the ferry (eg fuel) are also likely to be useful.

At the time of purchase, the cost of the ferry would provide information about the ‘value’ of the ferry that the entity intends to recover through use, sale, or a combination of both use and sale. As time passes, particularly for long-lived assets such as the ferry, whose current value is likely to significantly diverge from its cost over time, potential investors are likely to be increasingly interested in a current measure of the value of the ferry (rather than its historical cost), eg its fair value (the amount for which the asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction) (see paragraph 6 of IAS 16).

Because the ferry has a limited period (20 years for the main structure and 10 years for the engine) over which the entity expects to obtain benefit from the asset, an expense is recognised as the value of the asset is ‘consumed’ by the entity in ferrying passengers, their vehicles and goods. Consequently, a potential investor would want information about the extent to which the value of the ferry has been consumed.

Providing relevant and faithfully represented information about an entity’s property, plant and equipment in accordance with IFRSs and the IFRS for SMEs often requires judgement (see the answer to part D below).

Note: general purpose financial reports provide information to help existing and potential investors, lenders and other creditors to estimate the value of the reporting entity. However, general purpose financial reports do not and cannot provide all the information that existing
and potential investors, lenders and other creditors need. Those users need to consider pertinent information from other sources, for example, general economic conditions and expectations, political events and political climate, and industry and company outlooks (paragraph OB6 of the Conceptual Framework). Therefore, in assessing the entity’s potential to generate future net cash inflows, the potential investor would probably also be interested in non-financial information that is typically not provided in financial statements. For example, in this tutorial the potential investor would find the following of interest: changes in the population on the island and the mainland, changes in their travel habits (eg a shift from air to sea transport or vice versa) and other developments (eg possible development of a bridge or tunnel between the mainland and the island).

**Part B:**

**Is the ferry an asset of the entity?**

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity (paragraph 4.4(a) of the Conceptual Framework).

The ferry is an asset of the entity. It is a resource that is controlled by the entity (evidenced by unencumbered legal ownership and control by the entity’s management over the way the ferry is used) as a result of past events (purchasing the ferry) and from which future economic benefits are expected to flow to the entity (cash collected from customers for ferrying them, their vehicles and their goods between the mainland and the island).

**Part C:**

**Describe how the ferry satisfies the definition of property, plant and equipment**

The entity’s ferry asset satisfies the definition of an item of property, plant and equipment (PPE) as follows:

- it is a tangible asset because it has physical substance (eg steel and wood) (see also the answer to Part B above);
- it is held for the provision of services (ie transporting passengers, their vehicles and goods between the mainland and an island); and
- it is expected to be used by the entity during more than one period (20 years from 1 January 20X1).

**Part D:**

**Prepare accounting entries to record the ferry in the entity’s accounting records from 1 January 20X1 to 31 December 20X5.**

**1 January 20X1**

\[ \begin{array}{cc}
\text{Dr} & \text{Property, plant and equipment (PPE)—cost (asset)} & \text{CU1,000,000} \\
\text{Cr} & \text{Cash (asset)} & \text{CU1,000,000} \\
\end{array} \]

*To recognise the acquisition of the ferry.*

**20X1**

\[ \begin{array}{cc}
\text{Dr} & \text{Profit or loss—depreciation (expense)} & \text{CU60,000}^{(a)} \\
\end{array} \]

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Cr PPE—accumulated depreciation/impairment (asset) CU60,000

To recognise depreciation expense allocated for the year ended 31 December 20X1 on the ferry.

20X2
Repeat the journal entry above to recognise CU60,000 depreciation expense allocated for the year ended 31 December 20X2 on the ferry.

20X3
Repeat the journal entry above to recognise CU60,000 depreciation expense allocated for the year ended 31 December 20X3 on the ferry.

20X4
Repeat the journal entry above to recognise CU60,000 depreciation expense allocated for the year ended 31 December 20X4 on the ferry.

31 December 20X4
Dr Profit or loss—impairment (expense) CU120,000(e)
Cr PPE—accumulated depreciation/impairment (asset) CU120,000

To recognise the impairment loss for the flood-damaged ferry at 31 December 20X4.

1 January 20X5
Dr PPE—cost (asset) CU300,000
Cr Cash CU300,000

To recognise the acquisition of the new ferry engine.

31 December 20X5
Dr Profit or loss—depreciation (expense) CU58,750(g)
Cr PPP—accumulated depreciation/impairment (asset) CU58,750

To recognise depreciation expense allocated for the year ended 31 December 20X5 on the ferry.

Calculations:
(a) CU40,000(b) depreciation of main structure + CU20,000(c) depreciation of roof = CU60,000
(b) CU800,000 cost of main structure ÷ 20-year useful life = CU40,000 depreciation per year
(c) CU200,000 cost of engine ÷ 10-year useful life = CU20,000 depreciation per year
(d) CU140,000(a) carrying amount before scrapping engine at 31 December 20X4 less CU0 proceeds from scrapping = CU140,000 impairment loss
(e) CU200,000 cost of engine less CU80,000(f) accumulated depreciation of engine at 31 December 20X4 before impairment = CU120,000 carrying amount on 31 December 20X4 before scrapping the engine.
(f) CU20,000(c) depreciation per year × 4 years (20X1–20X4) = CU80,000 accumulated depreciation at 31 December 20X4.
31 December 20X4 (before impairment)

\[(g)\] CU40,000\(^{(b)}\) depreciation of main structure + CU18,750\(^{(h)}\) depreciation of new roof = CU58,750

\[(h)\] CU300,000 cost of new roof ÷ 16-year useful life = CU18,750 depreciation per year

**Part E:**

List some of the estimates and judgements that the management of the entity would have made in accounting for the ferry.

Management would have used judgement to:
1. Allocate the CU1,000,000 cost of the ferry between the engine and the main structure.
2. Determine the most appropriate depreciation method.
3. Estimate the useful life of each component—the original engine, the main structure and the new engine.
4. Determine the recoverable amount of the flood damaged ferry engine.

Because the entity intends to use the ferry for its entire useful life (in the absence of evidence to the contrary) its residual value is nil. There is no significant exercise of judgement.
Stage 2: Teaching material

In this section we present materials that could be used in Stage 2 classes. First, we include a list of reading materials that could be reviewed prior to class. Second, we list a set of materials that could be used in class to assist teaching on PPE. Third, we provide notes for students about accounting for PPE, including a series of examples and a set of discussion questions that could be used in class. We also include assignment tasks that could be completed within class or subsequent to class, either as a group or individual activity.

The reference material could be used in class discussion, activities and assignments and the reference material for open book examination.

Stage 2: Reference material

*Conceptual Framework for Financial Reporting*

IAS 16 *Property, Plant and Equipment* and Section 17 *Property, Plant and Equipment* of the *IFRS for SMEs*

IAS 23 *Borrowing Costs* and Section 25 *Borrowing Costs* of the *IFRS for SMEs*

IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*

IFRS 13 *Fair Value Measurement*

IFRIC 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities*

IFRIC 18 *Transfers of Assets from Customers*

Stage 2: Class material

*A Guide through IFRSs* (including the full consolidated text of IFRSs and accompanying documents issued by the IASB with extensive cross-references and other annotations)

The *IFRS for SMEs* (including the Basis for Conclusions on the *IFRS for SMEs*)

The financial statements of selected entities that have significant amounts of property, plant and equipment (PPE) and prepare their financial statements in compliance with IFRSs

Issues about PPE considered (or being considered) by the IFRS Interpretations Committee (Note: the reasons why the Committee did not add particular items to its agenda are included in footnotes in the text *A Guide through IFRSs.*)

Issues relating to PPE, if any, being considered by the IASB

Relevant published IFRS regulatory decisions relating to PPE

Relevant press coverage about the IFRS reporting of PPE

Notes for students (an example of a set of notes is provided below)

In-class or self-study questions (some examples are provided below)

Possible assignment questions

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Stage 2: Notes for students

Objective

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (paragraph OB2 of the Conceptual Framework). Other aspects of the Conceptual Framework (a reporting entity concept, the qualitative characteristics of, and the constraint on, useful financial information, elements of financial statements, recognition, measurement, presentation and disclosure) flow logically from the objective (paragraph OB1 of the Conceptual Framework).

IFRSs are based on the Conceptual Framework (paragraph 8 of the Preface to IFRSs). The objective of IAS 16 Property, Plant and Equipment 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 (paragraph 1 of IAS 16).

To assess an entity’s prospects for future net cash inflows, existing and potential investors, lenders and other creditors need information about the resources of the entity, claims against the entity, and how efficiently and effectively the entity’s management and governing board have discharged their responsibilities to use the entity’s resources. (paragraph OB4 of the Conceptual Framework). For those entities for which PPE is a significant resource (eg a manufacturer’s plant, a car rental company’s fleet, a retailer’s retail outlets and the office buildings of some entities in the service industry), and depreciation expense (akin to the consumption of the carrying amount of the PPE) is often a significant item in measuring their financial performance.

Relevant information (ie information that is capable of making a difference in the decisions made by users) and faithfully represented information (ie information that is complete, neutral and free from error) about many entities’ PPE is likely to be useful to existing and potential investors, lenders and other creditors when making decisions about the reporting entity. Providing relevant and faithfully represented information about an entity’s PPE in accordance with IFRSs and the IFRS for SMEs often requires judgement.

Discussion questions

For each of the following four scenarios, answer these questions:

(a) What information about that entity’s PPE would you find useful?

(b) Why you think that information would be useful?

Question 1: Scenario—you are deciding whether to buy shares in a machine-intensive manufacturing business.
Question 2: Scenario—you are deciding whether to renew a loan to a business that develops computer programs. That business’s only significant item of PPE is the building that it owns and from which it operates.

Question 3: Scenario—you are deciding whether to supply envelopes (that you manufacture) on credit to a mailing house. The business’s only significant item of PPE is the building that it owns and from which it operates.

Question 4: Scenario—you are deciding whether to sell shares that you have held for more than a decade in a cattle farming business. The business’s only significant item of PPE is the farmland that it purchased over 20 years ago in an area that is now surrounded by the financial centre of a rapidly developing emerging economy.

Assignment
Find the current consolidated annual report for an exchange listed group that has property, plant and equipment (PPE) and prepares its financial statements in compliance with IFRSs. (Annual reports can be downloaded directly from companies’ websites). Prepare a one page executive summary for the company’s Board of Directors that outlines the usefulness of the company’s accounting and reporting of its PPE.

Scope
PPE are tangible assets that:

(a) are held for use in the production or supply of goods (eg a retailer’s point-of-sale equipment) or services (eg an architect’s tools), for rental to others (eg a car hire entity’s rental fleet), or for administrative purposes (eg computer equipment used by an entity’s administration staff), and

(b) are expected to be used during more than one period. (paragraph 6 of IAS 16, examples added).

Information about a reporting entity’s financial position (the entity’s resources and claims against the entity) and financial performance during a period (changes in its economic resources and claims other than by obtaining additional resources directly from investors and creditors) is useful in assessing the entity’s past and future ability to generate net cash inflows. That information indicates the extent to which the reporting entity has increased its available economic resources, and thus indicates its capacity for generating net cash inflows through its operations rather than by obtaining additional resources directly from investors and creditors. (paragraphs OB12 and OB18 of the Conceptual Framework).

Example 1: manufacturing equipment
An entity built a nuclear power plant with which it generates electricity that it sells to its customers (members of the general public). The entity operates the plant in accordance with rigorous conditions imposed by the government of the jurisdiction in which it operates. Failure to comply with the operating procedures would potentially result in the government agency revoking the entity’s licence to operate the plant. The entity expects to operate the
power generator in compliance with the licence conditions for about 50 years before decommissioning the nuclear plant.

*The first question—is the power plant an asset?*

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity. (paragraph 4.4(a) of the *Conceptual Framework*).

The plant is an asset of the power generator—it is a physical resource constructed by the power generator (past event) and, subject to compliance with the licensing conditions, it is used at the power generator’s discretion (control) to generate electricity, the sale of which is expected to result in the flow of cash (future economic benefits) from the power generator’s customers to the power generator.

Note: the rigorous licensing conditions within which the entity operates the nuclear power plant do not in themselves prevent the entity from controlling the plant.

*The second question—is the power plant asset an item of PPE?*

The power generator’s nuclear power plant clearly satisfies the definition of an item of PPE—it has physical form (it is tangible), it is used to generate electricity (held for use in production) and it is expected to be used for about 50 years (in more than one period).

*Conclusion*

The nuclear power plant (asset) is an item of the power generator’s PPE.

**Example 2: exploration equipment**

An entity purchases a deep-sea drilling rig to explore for oil and gas under a two-year licence from a government in a specified area of that country’s territorial waters. If the entity finds oil or gas, or both, within the two-year exploratory drilling licence period, the government will pay the entity a single payment equal to 1 per cent of the estimated market value of the oil and gas reserves found. If no oil or gas is found, then the entity receives nothing.

Geological surveys of the area suggest that there is only a 10 per cent probability that there is oil and gas to be found in the area covered by the licence. Moreover, if oil and gas exists in the licenced area, management estimates that there is only a 20 per cent chance that it will be found by the entity during the licence period. In accordance with the licence conditions, the drilling rig must be dismantled and recycled at the end of the two-year licence period.

*The first question—is the exploration rig an asset?*

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity. (paragraph 4.4(a) of the *Conceptual Framework*)

The rig is an asset of the exploration entity—it is a physical resource purchased by the entity (past event) and it is used at the exploring entity’s discretion (control) to find oil and gas in a specified area, the discovery of which is expected (there is a greater than zero probability of a cash inflow) to result in the flow of cash (future economic benefits) from the licensing government to the exploration entity.

*The second question—is the rig asset an item of PPE?*
The exploring entity’s rig clearly satisfies the definition of an item of PPE—it has physical form (it is tangible), it is used to discover oil and gas beneath the seabed (held for the provision of a service) and it is expected to be used for two years (in more than one period).

**Conclusion**

The rig (asset) is an item of the oil and gas exploration entity’s PPE.

Note: even though the rig satisfies the definition of an item of PPE, its recognition and measurement is explicitly excluded from the scope of IAS 16 (see below).

**Example 3: transfer of assets from customers**

In some circumstances, significant judgement may be necessary to determine whether a particular transaction results in the transfer of an item of PPE to the entity. For example, see examples 1–3 set out in paragraphs IE1 to IE9 of the illustrative examples that accompany IFRIC 18 Transfers of Assets from Customers, which focus on whether the definition of an asset is satisfied in various arrangements that transfer an asset from a customer.

The fundamental issue in those examples is judging who controls the asset in those arrangements.

Although at this conceptual level there is little distinction between the recognition and measurement requirements for different types of assets and liabilities, at the standards level there are significant differences. For example, after initial recognition PPE is measured using a cost model or a revaluation model (an accounting policy choice), while investment property is measured using the cost model or the fair value model (an accounting policy choice in full IFRSs but circumstance-driven in the IFRS for SMEs). Inventory is measured at the lower of its cost and net realisable value, while a biological asset—a living animal or plant—that relates to agricultural activity is measured at fair value less costs to sell (paragraphs 12 and 13 of IAS 41 Agriculture).

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(1) The Conceptual Framework merely lists a number of different measurement conventions (rather than measurement concepts), including historical cost, current cost, realisable value and present value. Apart from considering the objective of financial statements and the qualitative characteristics of financial information the Conceptual Framework does not provide guidance on when particular measurements should be used.

(2) Investment property is property (land or a building—or part of a building—or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both, rather than for: (a) use in the production or supply of goods or services or for administrative purposes; or (b) sale in the ordinary course of business. (paragraph 5 of IAS 40 Investment Property)

(3) If the fair value of an investment property can be measured reliably without undue cost or effort on an ongoing basis it is measured at its fair value. Other investment property is accounted for as PPE at cost less accumulated depreciation and accumulated impairment, if any.

(4) Inventories are assets: (a) held for sale in the ordinary course of business; (b) in the process of production for such sale; or (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services. (paragraph 6 of IAS 2 Inventories)

(5) Agricultural activity is the management by an entity of the biological transformation—the process of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset—
Furthermore, financial statements portray the financial effects of transactions and other events by grouping them into broad classes according to their economic characteristics. These broad classes are termed the elements of financial statements. The elements directly related to the measurement of financial position in the statement of financial position are assets, liabilities and equity. The elements directly related to the measurement of performance in the statement of comprehensive income are income and expenses. (paragraph 4.2 of the Conceptual Framework).

The presentation of these elements (eg assets) in the statement of financial position and the statement of comprehensive income involves a process of sub-classification. For example, assets and liabilities may be classified by their nature or function in the business of the entity in order to display information in the manner most useful to users for purposes of making economic decisions. (paragraph 4.3 of the Conceptual Framework). For example, an entity’s asset ‘land’ is classified as PPE (if it is held for use in the production or supply of goods or services or for administrative purposes), investment property (if it is held to earn lease rentals for capital appreciation or both) or inventory (if it is held for sale in the ordinary course of business).

It is usually not difficult to distinguish PPE from other assets. However, in some cases significant judgement may be required, for example:

- Some properties comprise a portion that is held to earn rentals or for capital appreciation and another portion that is held for use in the production or supply of goods or services or for administrative purposes. If these portions could be sold separately (or leased out separately under a finance lease), an entity accounts for the portions separately. If the portions could not be sold separately, the property is investment property only if an insignificant portion is held for use in the production or supply of goods or services or for administrative purposes.

- In some cases, an entity provides ancillary services, for example security and maintenance services, to the occupants of a property it holds. It may be difficult to determine whether ancillary services are so significant that a property does not qualify as investment property. In most cases security and maintenance services will be insignificant and hence the building would be classified as investment property. However, some companies rent out fully furnished offices including a whole range of services such as information technology systems and administration services (eg many hotels). Such arrangements are in the nature of the provision of a service and the property would be classified as owner-occupied and accounted for as PPE. There are several instances between these extremes where it may be difficult to judge whether the services are insignificant.

When significant judgement is needed to determine whether a property qualifies as investment property, an entity should develop criteria so that it can exercise that judgement consistently in accordance with the definition of investment property.

The concept for the presentation (sub-classification) of the asset ‘land’ in the statement of financial position (as PPE, investment property or inventory) depends on the function of the land in the business of the entity, because that sub-classification displays information about land in a manner that is useful for the purposes of making economic decisions. Note: land related to agricultural activity is accounted for as PPE or investment property depending on which standard (IAS 16 or IAS 40) is appropriate in the circumstances (see paragraph B55 of the Basis for Conclusions on IAS 41).

and harvest of biological assets for sale or for conversion into agricultural produce or into additional biological assets (paragraph 5 of IAS 41 Agriculture).
Consistently with the function (use-based) subclassification concept, land is transferred from one classification to another when the purpose for which it is held changes. For example, an investment property becomes PPE when it is occupied by its owner (see paragraph 57(a) of IAS 40). Similarly, PPE becomes inventory at the commencement of development with a view to sale. A decision to sell the land without redevelopment would not result in the PPE being reclassified as inventory. However, provided that the entity is demonstrably committed to a plan to sell the land without redevelopment when that land becomes available for immediate sale in its present condition (subject only to terms that are usual and customary for sales of such assets and its sale is highly probable) then it would be reclassified as a non-current asset held for sale because its carrying amount will be recovered principally through a sale transaction rather than through continuing use (see paragraphs 6–8 of IFRS 5 Non-current Assets Held for Sale and Discontinued Operations).

What if land is acquired for an undetermined future use? Land acquired for an undetermined purpose is classified as investment property (see paragraph 8(b) of IAS 40) because a subsequent decision to use such land as inventory or for development as owner-occupied property (PPE) would be an investment decision (paragraph B67(b)(ii) of the Basis for Conclusions on IAS 40).

Assignment

Your task is to find examples of items of PPE (or other tangible assets) that are difficult to classify. Possible sources include:

(i) the IFRS financial statements of exchange listed entities;
(ii) published regulatory decisions of securities regulators;
(iii) reports of professional accounting firms; and
(iv) press articles.

Using the examples you have located, explain:

(i) why you consider those items difficult to classify;
(ii) whether you agree with the entity’s classification; and
(iii) whether another classification would provide investors, lenders and other creditors (existing and potential) with more useful financial information.

Give reasons for your views, making reference to the requirements of IAS 16 and other relevant IFRSs.

Some items that meet the definition of PPE are explicitly excluded from the scope of IAS 16. These exceptions are rules that deviate from the general PPE classification principle. Such exceptions occur when another standard requires or permits a different accounting treatment for particular items that satisfy the definition of PPE. (paragraph 2 of IAS 16) Consequently, IAS 16 does not apply to:

a) PPE classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations;
b) biological assets\(^{(9)}\) related to agricultural activity\(^{(10)}\) (see IAS 41 Agriculture);\(^{(11)}\)
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, the requirements of IAS 16 apply to items of PPE that an entity uses to develop or maintain (a) biological assets and (b) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources (paragraph 3 of IAS 16) because items of PPE that an entity uses for these purposes possess the same characteristics as other items of PPE (paragraph BC 4 of the basis for Conclusions on IAS 16).

By discussing examples like those set out below with the class, a teacher can begin to develop the students’ understanding of how to apply the classification exceptions in IAS 16.

**Example 1: cattle and farm implements**

An entity owns a herd of cattle that forms the breeding stock of its agricultural activities. The entity also owns a tractor and trailer that are used to transport feed to the cattle. Although the cattle arguably meet the definition of PPE—they are tangible assets used in the production of calves in more than one accounting period—because of the specific exemption for biological assets related to agricultural activity they are accounted for as biological assets in accordance with IAS 41 Agriculture. They are outside the scope of IAS 16.

Note: even though the tractor and trailer are used in a farming operation they are classified as items of PPE. They are physical assets used in the supply of goods during more than one reporting period. The exception to the PPE classification principle does not apply because the tractor and trailer are not biological assets related to agricultural activity.

**Example 2: land on which trees are grown for timber**

An entity owns and manages a pine plantation forest (the trees and the land on which they are growing).
Although the trees arguably satisfy the definition of PPE—they are tangible assets used in the production of logs in more than one accounting period—because of the specific exemption for biological assets related to agricultural activity they are accounted for as biological assets in accordance with IAS 41 Agriculture (ie the trees are outside the scope of IAS 16).

Note: even though the trees in the pine plantation forest are attached to and growing on the entity’s farmland, the land is classified as an item of PPE. It is a physical asset used in the supply of goods (logs) during more than one reporting period. The exception from the PPE classification principle does not apply to the land because the land is neither a living animal nor a living plant. Consequently, although it is related to agricultural activity, the land cannot be accounted for in accordance with IAS 41 because it is not a biological asset as defined in paragraph 5 of IAS 41.

Example 3: guard dogs
A security firm owns guard dogs that work with its security personal to provide personal security services.

The guard dogs meet the definition of biological assets—a living animal (paragraph 5 of IAS 41)—and the definition of PPE in IAS 16 because they are assets used in the provision of security services in more than one accounting period.

The biological asset exemption from the scope of IAS 16 does not apply to the guard dogs because they are not related to agricultural activity (ie although the dogs are controlled by the entity, their biological transformation is not management by an entity—the process of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset—for harvest of biological assets for sale or for conversion into agricultural produce or into additional biological assets). Consequently, the guard dogs are within the scope of IAS 16.

Example 4: bird breeder
The birds belonging to a breeder of exotic parrots satisfy the definition of biological assets—a living animal (paragraph 5 of IAS 41). They arguably also satisfy the definition of PPE in IAS 16 because they are assets used in the provision of goods in more than one accounting period.

The biological asset exemption from the scope of IAS 16 applies to the parrots because they are related to agricultural activity (ie the biological transformation—the process of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset—of the birds is managed by an entity for sale or for conversion into additional biological assets). Consequently they are not within the scope of IAS 16 (they are within the scope of IAS 41).

Example 5: bird breeding zoo
An entity generates two significant revenue streams from its exotic parrots: (i) sale of birds bred (a typical exotic-bird breeding operation) and (ii) tickets sold to members of the general to observe the birds (an entertainment operation).
The birds satisfy the definition of biological assets—a living animal (paragraph 5 of IAS 41). They arguably also satisfy the definition of PPE in IAS 16 because they are assets used in the provision of goods in more than one accounting period.

Because the breeding operation is significant, the biological asset exemption from the scope of IAS 16 applies because they are related to agricultural activity (ie the biological transformation—the process of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset—of the birds is managed by an entity for sale or for conversion into additional biological assets). Consequently they are not within the scope of IAS 16 (they are within the scope of IAS 41).

Note: if the breeding operation was insignificant (eg only incidental to the entertainment operation) then, in the absence of evidence to the contrary, the exemption would apply and the birds would be accounted for as PPE in accordance with IAS 16. In other zoological operations, significant judgement may be required to determine whether the breeding operation is significant.

Examples 6–8: PPE held for sale

See examples 1–3 set out in the guidance on implementing IFRS 5 (that accompany but does not form part of IFRS 5), which focus on when the definition of held for sale is satisfied in various circumstances. Judging when an asset or disposal group is held for sale is important because assets held for sale are classified and measured separately from other non-current assets.

Unit of account

Now that the students have been taught the definition of PPE the teacher could introduce a discussion about the unit of account for PPE. The class can then consider when to recognise an item of PPE and how to measure it when it is first recognised.

The unit of account is the unit of measure for recognition of an item, a collection of items or a part of an item. IAS 16 does not prescribe the unit of measure for recognition (ie what constitutes an item of PPE). Consequently, judgement is required in applying the recognition criteria to an entity’s specific circumstances. It may be appropriate to aggregate individually insignificant items, such as moulds, tools and dies, and to apply the criteria to the aggregate value. (paragraph 9 of IAS 16) In making those judgements, management would be mindful of the objective of general purpose financial reporting (see above) and the concepts that flow from that objective (eg the qualitative characteristics of financial information, particularly relevance and faithful representation).

By discussing examples like those set out below with the class, a teacher begins to develop the students’ ability to make the judgements that are necessary to identify an item of PPE (the unit of account).

(12) See the definition of a disposal group in Appendix A Defined terms of IFRS 5.
Example: manufacturing plant

An entity buys a plant that manufactures egg boxes from waste paper. The plant is comprised of a factory building (which has about 30 years’ remaining economic life, except that the roof will need to be replaced about 10 years after the date of purchase), a waste paper shredding machine, a shredded paper pulping machine, five independently operating automotive heisters (that transport the raw materials and finished goods in the factory) and a thousand low value reusable moulds that mould the paper pulp into egg boxes. At the date of acquisition the fair values are as follows:

- factory building CU1,000,000 (structure = CU800,000 and roof = CU200,000)
- shredding machine CU2,000,000
- pulping machine CU6,000,000
- heisters between CU15,000 and CU25,000 each (CU80,000 in aggregate)
- moulds between CU1 and CU100 each (CU20,000 in aggregate).

Identify the items of PPE acquired in the business combination in accordance with IAS 16

Because IAS 16 does not specify the unit of account for an item of PPE, judgement is used in the light of the entity’s specific circumstances. In making such judgements, management is mindful of the objective of general purpose financial reporting (see above) and the concepts that flow from that objective (eg the qualitative characteristics of financial information, particularly relevance and faithful representation).

At the date of acquisition it is highly likely that the value of the factory building, waste paper shredding machine and the shredded paper pulping machine are individually significant. Conversely, none of the 1,000 low value moulds whose individual values do not exceed CU100 are likely to be individually significant. Consequently, they could be classified collectively as a single item of PPE. Furthermore, if the aggregate value of the moulds is immaterial (another judgement), then the collection of moulds need not be identified as a separate item of PPE.

Determining whether the heisters are individually insignificant probably requires more judgement. The highest value heister is CU25,000. All facts and circumstances (not only the heister’s value relative to the total cost of the business combination) would need to be considered in making that judgement.

Recognition

The objective of general purpose financial reporting\(^{(13)}\) forms the foundation of the Conceptual Framework. Other aspects of the Conceptual Framework, including recognition—a reporting entity concept, the qualitative characteristics of, and the constraint on, useful financial information, elements of financial statements, recognition, measurement, presentation and disclosure)—flow logically from the objective. (Paragraph OB1 of the Conceptual Framework.)

\(^{(13)}\) The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing
Recognition is the process of incorporating into the statement of financial position or statement of comprehensive income an item that meets the definition of an element (eg asset) and satisfies the criteria for recognition (see below). It involves the depiction of the item in words and by a monetary amount and the inclusion of that amount in the [statement of financial position] or the [statement of comprehensive income]. (Paragraph 4.37 of the Conceptual Framework updated for new terminology and example added.)

The recognition concept is that an item that meets the definition of an element (eg an asset) should be recognised if:

(a) it is probable that any future economic benefit associated with the item will flow to or from the entity; and

(b) the item has a cost or value that can be measured with reliability. (paragraph 4.38 of the Conceptual Framework)

In assessing whether an item meets these criteria and therefore qualifies for recognition in the financial statements, regard needs to be given to the materiality considerations discussed in Chapter 3 Qualitative characteristics of useful financial information. The interrelationship between the elements means that an item that meets the definition and recognition criteria for a particular element, for example, an asset, automatically requires the recognition of another element, for example, income or a liability. (paragraph 4.39 of the Conceptual Framework)

By discussing examples like those set out below with the class, a teacher begins to develop the students’ ability to make the judgements that are necessary to distinguish material items from those items that are immaterial.

Example: materiality

A large listed profitable multinational entity whose financial statements are presented in millions of CUs follows an accounting policy of recognising individual items of PPE that cost less than CU1,000 as an expense on initial recognition. Applying this policy resulted in the entity recognising 800 items of PPE acquired in the period with a total cost of CU100,000 as an expense.

In the absence of evidence to the contrary, the entity’s accounting policy of recognising immaterial items of PPE (an asset) as an expense on initial recognition does not contravene IFRSs.

The teacher could then guide the class discussion toward the circumstances in which the entity’s policy could result in a material error in the entity’s financial statements. Discussion points could include, among others, when the cumulative effect of applying the policy could influence decisions that users make on the basis of financial information about that entity (eg resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit. (paragraph OB2 of the Conceptual Framework)

Information is material if omitting it or misstating it could influence decisions that users make on the basis of financial information about a specific reporting entity. In other words, materiality is an entity-specific aspect of relevance based on the nature or magnitude, or both, of the items to which the information relates in the context of an individual entity’s financial report. Consequently, the Board cannot specify a uniform quantitative threshold for materiality or predetermine what could be material in a particular situation. (paragraph QC11 of the Conceptual Framework)

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if the aggregate amount of individually immaterial assets recognised as an expense in the period is material). The class could also discuss in what circumstances applying the policy:

- changes a profit to a loss, and *vice versa*;
- affects an entity’s ability to meet the consensus of expectations among analysts;
- masks a change in earnings or other financial trends;
- affects the entity’s compliance with loan covenants (eg by impact on debt/equity or debt/assets ratio) or other contractual requirements; or
- increases management’s remuneration (eg by satisfying requirements for a bonus).

Consistently with the concept of element recognition in the *Conceptual Framework*, the general recognition principle for PPE is that the cost of an item of PPE is recognised as an asset 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. (Paragraph 7 of IAS 16)

An entity uses this recognition principle to evaluate all its PPE costs at the time they are incurred. These costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to it, to replace part of it, or maintain it. (Paragraph 10 of IAS 16)

By referring to the cost of an item of PPE (rather than an item of PPE) and by specifying that the single general recognition principle applies to all expenditure on PPE (initial and subsequent), this principle fosters consistency without specifying what constitutes an item of PPE (ie without specifying the unit of account for PPE). This straightforward approach avoids making the distinction between initial and subsequent expenditure on PPE and is consistent with the *Conceptual Framework* (see paragraph BC10 of the Basis for Conclusions on IAS 16).

It is usually not difficult, at the time of the expenditure, to determine whether the cost of an item of PPE must be recognised as an asset or as an expense. First, it must satisfy the definition of an asset that is classified as PPE. To be recognised as an asset that it must also satisfy both recognition criteria.

The first recognition criterion (probable future economic benefits) is usually satisfied when the expenditure first satisfies the definition of an asset of the entity (see above)—because the ultimate purpose for which entities usually acquire PPE is to generate income directly (eg by using a machine to manufacture goods for sale) or indirectly (eg an entity’s head office building houses the staff that administer the business that generates the cash inflows) from their use. In other words, management of a business would usually not purchase PPE unless it is probable that future economic benefits will flow to the business from using it.

Although the *Conceptual Framework* specifies that probability is used in the first recognition criterion to refer to the degree of uncertainty that the future economic benefits associated with the item will flow to the entity (paragraph 4.40 of the *Conceptual Framework*), it does not specify whether the recognition threshold is not satisfied only when there is no probability of a cash flow occurring, or whether the likelihood of the cash flow occurring being probable (ie greater than 50 per cent) is necessary to trigger recognition. Consequently, the recognition
criteria determined at the requirement level are not consistent across IFRSs (eg for the purpose of applying IAS 37 Provision, Contingent Liabilities and Contingent Assets probable means ‘more likely than not’ that the future economic benefit associated with the item will flow to or from the entity (eg in determining whether a liability is recognised for a particular present obligation). In such cases, the outcome is binary—if the probability of the outflow is greater than 50 per cent, a liability is recognised (conversely, if the probability of the outflow is 50 per cent or less, the obligation is not recognised as a liability, ie it is excluded from the entity’s statement of financial position). In those circumstances in which the cost of an item of PPE includes the initial estimate of decommissioning, restoration and similar liabilities the recognition of such liabilities affects the measurement of the asset when it is first recognised.

Other requirements require recognition of elements that meet the definition of an element (eg as an asset or as a liability) and reflect the uncertainties associated with the likelihood of cash flows occurring in respect of particular rights or obligations in the measurement of that asset or liability—for example, when measuring an item at fair value.

By discussing examples like those set out below with the class a teacher begins to develop the students’ ability to make the judgements that are necessary to apply the probable recognition criterion.

**Example 1: backup generator (safety equipment)**

A private hospital has installed two identical backup generators. The first backup generator provides electricity when the normal supply is interrupted. The second backup generator will be used in the unlikely event that the first backup generator fails.

Both backup generators are items of PPE. The standby equipment is expected to be used in more than one accounting period, although at unpredictable times. The likelihood of using the second backup generator might be remote. However, the probability that the entity will receive future economic benefits because it controls that equipment is real. Backup generators could be required by law to operate a hospital in some jurisdictions. Even if there is no legal requirement for the hospital to have backup generators in a state ready for use, the additional security that they provide to patients in the event of a power failure can reasonably be expected to result in cash flowing to the entity because it would increase the number of patients choosing that hospital, or because the hospital could charge higher fees for its services, or both. Moreover, the backup generators protect the hospital from incurring significant financial loss in the event of distress, damage to health or death of its patients, in the event of a power failure.

In other words, although the backup generators do not necessarily directly increase future economic benefits, they enable the entity to derive future economic benefits from related assets in excess of what could be derived if the backup generators had not been acquired. Consequently, they satisfy the first recognition criterion.

**Example 2: day-to-day servicing (sometimes referred to as repairs and maintenance)**

Once a month an entity’s maintenance staff lubricate the moving parts of each its machines with specialised oils that reduce friction and consequently enable the machines to operate
efficiently. Those staff also tighten all nuts and bolts, replace any worn washers and other small parts of insignificant value and touch up any worn paintwork at the entity’s plant.

Although the salaries of the maintenance staff and the cost of the consumables and small parts that they use are arguably incurred in the pursuit of future economic benefits, the flow of those future economic benefits is not sufficiently certain to be recognised as an asset under the general recognition principle (see paragraph BC12 of the Basis for Conclusions on IAS 16). Consequently, those costs are recognised as an expense as they are incurred in accordance with the application guidance in paragraph 12 of IAS 16.

In other words, the cost of day-to-day servicing is deemed not to satisfy the first recognition criterion.

Example 3: replacement parts

An entity that manufactures agricultural chemicals is required by law to have the protective lining of its chemical processing plant inspected for corrosion at six-month intervals. If an inspection reveals damage to the lining the entity is required to replace the lining immediately. Experience has shown that linings require replacement, on average, every four years. The estimated economic life of the other parts of the plant is 20 years.

In the current reporting period the entity replaced its plant’s protective lining.

The costs incurred in replacing the lining are in the pursuit of future economic benefits—without replacement the entity cannot use its plant to manufacture chemicals. In other words, the cost of replacing the lining satisfies the first recognition criterion because they enable the flow of those future economic benefits from the manufacture and the sale of chemicals to the entity. Consequently, in accordance with the general recognition principle (assuming the costs can be determined reliably,) as clarified in application guidance in paragraph 13 of IAS 16, the replacement lining is recognised as an asset (ie part of the cost of the chemical processing plant (see paragraph BC6 of the Basis for Conclusions to IAS 16).

Note: the carrying amount of the old lining is derecognised because it has been replaced (in other words, the plant has only one lining—the new lining).

Example 4: major inspections—a condition of continuing to operate an item of PPE

An entity that operates an executive aviation service is required to have its jet aircraft inspected for faults by the national aviation authorities every two years. An inspection was made in the current reporting period.

The costs incurred for the inspection are in the pursuit of future economic benefits—without inspection the entity cannot use its aircraft to provide commercial aviation services. In other words, the cost of the inspection satisfies the first recognition criterion because it enables the flow of future economic benefits from the customers for its executive aviation services to the entity. Consequently, in accordance with the general recognition principle (assuming the costs can be determined reliably) as clarified in application guidance in paragraph 14 of IAS 16, the service is recognised as an asset, that is part of the cost of the aircraft (see paragraph BC6 of the Basis for Conclusions to IAS 16).

Note: the remaining carrying amount, if any, attributed to the old service is derecognised because that part of the asset has been replaced.
Assignment

Your task is to find examples of items of PPE that have parts that (a) require replacement at regular intervals and (b) replacement at less frequent and irregular intervals. Possible sources for examples include:

(i) the IFRS financial statements of exchange-listed entities;
(ii) published regulatory decisions of securities regulators;
(iii) reports from professional accounting firms; and
(iv) press articles.

Using the examples you have located, explain:

(i) whether you agree with the entity’s identification of such replacement parts: and

(ii) whether accounting for those replacement parts separately provides investors, lenders and other creditors (existing and potential) with useful financial information.

Give reasons for your views, making reference to requirements of IFRSs or the IFRS for SMEs.

The second recognition criterion is usually also satisfied when the item of PPE first meets the definition of an asset of the entity. In some cases, the cost of an item of PPE can be measured precisely (eg when an entity acquires a ready-to-use photocopier for use by its administration staff in exchange for CU1,200 cash). In other cases, cost must be estimated. For example, an item of PPE for which there is not an active market that is received by way of a government grant or an item is acquired together with other assets in a business combination. The cost of a self-constructed asset may include many estimates, for example the cost of a retail outlet constructed by a brick manufacturer would include the cost of the self-manufactured bricks used (the cost of those bricks includes numerous estimates, eg an allocation of fixed production overhead including depreciation of the kiln) and borrowing costs allocated in accordance with IAS 23 Borrowing Costs. However, it is important to remember that the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability. (paragraph 4.41 of the Conceptual Framework) Consequently, such estimates do not prevent recognition as an asset.

Cost

When an item of PPE first qualifies for recognition as an asset, it is measured at its cost (see paragraph 15 of IAS 16).

That cost 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. For application guidance, see paragraphs 17 and 19–22 of IAS 16. In addition, to giving a more faithful representation of the cost of an asset than would be the case if
all borrowing costs were recognised as an expense (see paragraph BC9 of the Basis for Conclusions to IAS 23 Borrowing Costs), borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset (eg the construction of a manufacturing plant that necessarily takes two years to get ready for intended use) are capitalised as part of the cost of the asset in accordance with IAS 23. For application guidance, see IAS 23.

(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 the entity incurs when the item is acquired 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. (paragraph 16 of IAS 16) measured in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets (see paragraph 18 of IAS 16) and with changes to those costs being accounted for in accordance with IFRIC 1 Changes in Existing Decommissioning, Restoration and Similar Liabilities.

Estimating the cost in respect of items (b) and (c) above may require significant estimates and other judgements. It is important to remember that the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability. (paragraph 4.41 of the Conceptual Framework) Consequently, such estimates do not prevent recognition as an asset.

Recognition of costs in the carrying amount of an item of PPE ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. (paragraph 20 of IAS 16)

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**By discussing issues like those set out below with the class, a teacher provides the class with a meaningful learning experience that contributes to a cohesive understanding of IFRSs and begins to develop the students’ ability to make the judgements that are necessary to measure PPE at when it is first recognised in accordance with IAS 16.**

**Discussion question—borrowing costs**

**Background**

In 2007 the IASB revised IAS 23 to eliminate the option of recognising all borrowing costs as an expense in the period in which they are incurred. Conversely, in 2009 when developing the IFRS for SMEs the IASB decided not permit the capitalisation of borrowing costs as part of the cost of an asset (see paragraph BC120 of the Basis for Conclusions to the IFRS for SMEs)—SMEs are required to recognise borrowing costs as an expense in the period in which they are incurred (see paragraph 25.2 of the IFRS for SMEs). The scope of IAS 23 continues to be limited to borrowing costs, ie it does not deal with the actual or imputed cost of equity (see paragraph 3 of IAS 23).

**Question 1:** To what extent does capitalising borrowing costs as part of the cost of an item of PPE, in accordance with IAS 23, provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?

**Question 2:** To what extent does recognising borrowing costs as an expense in the period in which they are incurred, in accordance with the IFRS for SMEs, provide investors, lenders and other creditors (existing and potential) with useful financial information about an entity that does not have public accountability?
Question 3: What significant estimates and judgements are an entity’s management likely to make when capitalising borrowing costs in accordance with IAS 23?

Example—decommissioning liability

An entity has a nuclear power plant and a related decommissioning liability. The nuclear power plant started operating on 1 January 20X0. The plant has a useful life of 40 years. Its initial cost was CU120,000 including an amount for decommissioning costs of CU10,000, which represented CU70,400 in estimated cash flows payable in 40 years discounted at a risk-adjusted rate of 5 per cent. The entity’s financial year ends on 31 December.

On 31 December 20X9, the plant is 10 years old. Accumulated depreciation is CU30,000 (CU120,000 × \(\frac{10}{40}\) years). Because of the unwinding of the discount (5 per cent) over the 10 years, the decommissioning liability has grown from CU10,000 to CU16,300.

On 31 December 20X9, the discount rate has not changed. However, the entity estimates that, as a result of technological advances, the net present value of the decommissioning liability has decreased by CU8,000. Accordingly, the entity adjusts the decommissioning liability from CU16,300 to CU8,300.

What journal entry would the entity make to reflect the change?

On 31 December 20X9 the entity makes the following journal entry:

<table>
<thead>
<tr>
<th>Dr</th>
<th>Decommissioning liability</th>
<th>CU8,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cr</td>
<td>PPE (cost of nuclear power plant)</td>
<td>CU8,000</td>
</tr>
</tbody>
</table>

Measurement

The objective of general purpose financial reporting forms the foundation of the Conceptual Framework. Other aspects of the Conceptual Framework including measurement—(a reporting entity concept, the qualitative characteristics of, and the constraint on, useful financial information, elements of financial statements, recognition, measurement, presentation and disclosure)—flow logically from the objective. (paragraph OB1 of the Conceptual Framework)

Measurement is the process of determining the monetary amounts at which the elements of the financial statements are to be recognised and carried in the statement of financial position and the statement of comprehensive income. (Paragraph 4.54 of the Conceptual Framework updated for new terminology)

However, the Conceptual Framework observes only that a range of measurement methods are employed to different degrees and in varying combinations in financial statements and provides an incomplete list, including (see paragraphs 4.55 and 4.56 of the Conceptual Framework):

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(15) See example 1 of the illustrative examples that accompany but do not form part of IFRIC 1.
(16) The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit. (paragraph OB2 of the Conceptual Framework)
• historical cost—assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition;

• current cost—assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently;

• realisable (settlement) value—assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal;

• present value—assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business; and

• market value. However, it does not describe that measurement (for more information see IFRS 13 Fair Value Measurement).

When developing financial reporting standards, subject to the cost-benefit constraint, the IASB chooses the alternative that goes furthest towards achieving the objective of financial reporting (see paragraphs BC3.4 and BC3.5 of the Basis for Conclusions to the Conceptual Framework). Consequently, particularly for measurement after initial recognition, IFRSs specifies different measurements for different categories of assets. For example, after initial recognition

• financial assets are measured at fair value or amortised cost (paragraph 5.2.1 of IFRS 9);

• inventories are measured at the lower of cost and net realisable value (paragraph 9 of IAS 2);

• investments in associates are measured using the equity method (see paragraph 13 of IAS 28);

• intangible assets and PPE are measured using the cost model or the revaluation model (see paragraph 72 of IAS 38 and paragraph 29 of IAS 16);

• investment property is measured using the cost model or the fair value model (see paragraph 30 of IAS 40);

• agricultural produce at the point of harvest and biological assets when they relate to agricultural activity are measured at fair value less costs to sell (see paragraph 12 of IAS 41); and

• non-current assets held for sale are measured at the lower of carrying amount (determined in accordance with other standards (eg IAS 16) and fair value less costs to sell (paragraph 15 of IFRS 5).

To a large extent, IFRS measurements are based on estimates, judgements and models rather than on exact depictions. The Conceptual Framework establishes the concepts that underlie those estimates, judgements and models. (paragraph OB11 of the Conceptual Framework)

When an asset or a liability is measured by reference to future cash flows and the future cash flows are uncertain (ie there is a range of possible outcomes), it is necessary to reduce the range of possible outcomes to a single measure (eg an expected value). The expected value of a distribution of outcomes is its arithmetic mean (ie the probability-weighted sum of the outcomes). For example, consider a transaction that has three possible outcomes:

• 40 per cent probability of CU100 cash flow
- 30 per cent probability of CU200 cash flow
- 30 per cent probability of CU500 cash flow.

The expected value of the cash flows is \((40 \text{ per cent} \times \text{CU}100) + (30 \text{ per cent} \times \text{CU}200) + 30 \text{ per cent} \times \text{CU}500) = \text{CU}250\).

The expected value technique is one of the building blocks for computing the current value of an asset or liability when that amount is not directly observable. IFRSs and the *IFRS for SMEs* require entities to measure particular assets and liabilities at expected value, or specify a measurement objective (such as fair value) that can be satisfied using expected value techniques eg IFRS 3 *Business Combinations* (for measuring contingent liabilities), IAS 37 *Provisions, Contingent Assets and Contingent Liabilities* (for measuring a provision involving a large population of items) and IAS 36 *Impairment of Assets* (for measuring value in use).

There are usually risks and uncertainties about the amounts, timings and probabilities assigned to the expected cash flows. Those risks and uncertainties can be captured either in estimates of cash flows or in the interest rates. However, the same uncertainties must not be captured in both (ie do not double count risks).

IFRS 13 *Fair Value Measurement* provides guidance on measuring fair value.

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**Discussion questions**

Question 1: Make a list of the various measurement models specified for assets in IFRSs (eg historical cost-impairment, historical cost-depreciation-impairment, revaluation model, fair value, fair value less costs to sell, net realisable value). To what extent does the financial information that results from using the various models meet the objective of financial reporting and the qualitative characteristics of financial information?

Question 2: In your view, does the existence of a range of measurements for assets affect the ability of a potential investors or a potential creditor to choose between investment alternatives? Give reasons for your answer.

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**Measurement of the cost of PPE at initial recognition**

To provide financial information about the reporting entity’s PPE that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity (see paragraph OB2 of the *Conceptual Framework*), an entity initially measures the cost of an item of PPE at its cash price equivalent at the recognition date (see...
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By relating the PPE cost measurement principle to the objective of financial reporting and the main concepts in the Conceptual Framework, by explaining the reasons for the exceptions to that principle and by explaining how the application guidance gives effect to that principle, the teacher provides the class with a cohesive understanding of the IFRS requirements for initially measuring the cost of an item of PPE.

Consistently with the cost measurement principle, IAS 16 provides application guidance, including:

- if payment for an item of PPE is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest over the period of credit unless such interest is capitalised in accordance with IAS 23 (see paragraph 23 of IAS 16).
- if a customer transfers an item of PPE to the entity that satisfies the definition of an asset, in accordance with paragraph 24 of IAS 16, the entity measures its cost at initial recognition at its fair value (see paragraph 11 of IFRIC 18).
- if an item of PPE is acquired in exchange for a non-monetary asset, the cost of the acquired item of PPE is measured at fair value unless (a) the exchange transaction lacks commercial substance (see paragraph 25 of IAS 16)(17) or (b) the fair value of neither the asset received nor the asset given up is reliably measurable(18) in which case its cost is measured at the carrying amount of the asset given up (see paragraph 24 of IAS 16).

Because IAS 16 is not independent of the requirements of other IFRSs, it specifies exceptions to its cost measurement principle for PPE. For example, the cost of an item of PPE held by a lessee under a finance lease is determined in accordance with IAS 17 Leases (see paragraph 27 of IAS 16). In addition, the carrying amount of an item of PPE may be reduced by government grants in accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance.

Other IFRSs also specify particular measurement of the cost of PPE when it is first recognised in particular circumstances. For example, in general conformity with the cost measurement principle in IAS 16:

- the cost of PPE acquired in a business combination is measured at its acquisition-date fair value (see paragraph 18 of IFRS 3 Business Combinations).
- the cost of PPE acquired in an equity-settled share-based payment is measured at the fair value of the PPE received (see paragraph 10 of IFRS 2 Share-based Payment).(19)

(17) A transaction does not have commercial substance if it does not have a discernible effect on the entity’s economics (see paragraph BC21 of the Basis for Conclusions to IAS 16).
(18) For application guidance see paragraph 27 of IAS 16.
(19) In the unlikely event that the fair value of the PPE received cannot be estimated reliably, the entity measure the cost of the PPE with reference to the fair value of the equity instrument granted.
• the cost of PPE acquired in a cash-settled share-based payment is measured at the fair value of the liability incurred (see paragraph 30 of IFRS 2).

By discussing examples like those set out below with the class, the teacher develops the students’ ability to make the judgements that are necessary to apply the cost measurement principle and related application guidance and exceptions in IAS 16.

Example 1: deferred payment
An entity acquired a plant for CU1,210,000 on two years’ interest-free credit.
Assuming 10 per cent per year is an appropriate discount rate, the cost of the plant (ie its cash price equivalent) could be estimated at CU1,000,000 (the present value of the future payment—calculation: CU1,210,000 future payment × 1/(1.1)²).
Note: the unwinding of the discount results in interest expense recognised in profit or loss respectively of CU100,000 and CU110,000 in the first and second 12-month period after the sale. Furthermore, two years after the sale, the liability of CU1,210,000 (ie CU1,000,000 + CU100,000 + CU110,000) is derecognised upon settlement of the debt.
Question 1: To what extent does measuring the costs of the plant at CU1,000,000 provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?
Question 2: What factors would the entity’s management need to consider when making the significant estimates and judgements necessary to measure the cash price equivalent of the plant at the date of its acquisition?

Example 2: decommissioning liability
An entity has a nuclear power plant and a related decommissioning liability. The nuclear power plant started operating on 1 January 20X0. The plant has a useful life of 40 years. Its initial cost CU120,000 includes an amount for decommissioning costs of CU10,000, which represented CU70,400 in estimated cash flows payable in 40 years discounted at a risk-adjusted rate of 5 per cent.
Question 1: To what extent does measuring the decommissioning component of the cost of the plant, in accordance with IAS 37, at CU10,000 provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?
Question 2: What factors would the entity’s management need to consider when making the significant estimates and judgements necessary to measure the decommissioning liability?

Example 3: asset exchange

\[\text{(20)}\text{See example 1 of the illustrative examples that accompany but do not form part of IFRIC 1.}\]

\[42\text{The views expressed in this article are those of the author and are not necessarily those of the IFRS Foundation or the IASB. Official positions of the IFRS Foundation and the IASB are determined only after extensive due process and deliberation.}\]
An airline received a new executive passenger jet in exchange for a three-year old executive passenger jet and landing rights at a particular airport. Consequently the airline will stop providing services at that airport.

Question 1: Does the exchange have commercial substance? Explain your reasoning.

Question 2: To what extent does measuring the costs of the new jet at its fair value (and derecognising the old jet and the landing rights), in accordance with IAS 16, provide investors, lenders and other creditors (existing and potential) with useful financial information?

Question 3: What estimates and judgements would the entity’s management probably need to make when measuring the fair value of the jet received?

Example 4: asset exchange

The airline in example 3 also received a four-year old executive passenger jet in exchange for a similar four-year old executive passenger jet. That exchange was made to increase the entity’s profit for the year by recognising a profit on the disposal of the jet given to the other party (the carrying amount of the jet given up is significantly lower than the fair value of the jets exchanged).

Question 1: Does the exchange have commercial substance? Give reasons for your answer.

Question 2: Would measuring the cost of the jet received at its fair value (and derecognising the jet given up with a consequent increase in the entity’s profit for the period) provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity? Give reasons for your answer.

Example 5: customer transfers an item of PPE to the entity

An entity enters into an agreement with a customer involving the outsourcing of a customer’s information technology (IT) functions. As part of the agreement, the customer transfers ownership of its existing IT equipment to the entity. Initially the entity must use the equipment to provide the service required by the outsourcing agreement. The entity is responsible for maintaining the equipment and for replacing it when the entity decides to do so. The useful life of the equipment is estimated to be three years. The outsourcing agreement requires service to be provided for ten years at a fixed price that is lower than the price the entity would have charged if the IT equipment had not been transferred.

In this example, the facts indicate that the IT equipment is an asset of the entity.

Question 1: To what extent does measuring the costs of the IT equipment received at its fair value, in accordance with IAS 16, provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?

Question 2: What estimates and judgements would the entity’s management probably need to make when measuring the fair value of the IT equipment received?

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(21) see example 3 of the illustrative examples that accompany but do not form part of IFRIC 18

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Example 6: PPE acquired in a business combination

An airline acquired a fleet of ten executive passenger jets in a business combination. The jets are between one and three years old at the date of acquisition.

Question 1: To what extent does measuring the costs of the jets acquired at their acquisition-date fair values, in accordance with IFRS 3, provide investors, lenders and other creditors (existing and potential) with useful financial information?

Question 2: What estimates and judgements would the entity’s management probably need to make when measuring the fair values of the jets acquired?

Example 7: PPE acquired in a share-based payment transaction

An airline granted 1,000 of its own shares to an aircraft manufacturer in exchange for a fleet of twenty new executive passenger jets.

Question 1: To what extent does measuring the costs of the jets acquired at their fair values, in accordance with IFRS 2, provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?

Question 2: What estimates and judgements would the entity’s management probably need to make when measuring the fair values of the jets received?

Measurement after initial recognition

Now that the students have been taught the measurement of PPE at initial recognition, the teacher could introduce a discussion about the requirements for measuring PPE after initial recognition. Because measuring PPE after initial recognition requires significant estimates and judgements, it is important that students should be taught those requirements in a way that prepares them to make those estimates and other judgements.

In accordance with paragraph 29 of IAS 16, an entity elects either the cost model or the revaluation model as its accounting policy for each class of PPE\(^{22}\). The *IFRS for SMEs* requires use of the cost model (see paragraph 17.15 of the *IFRS for SMEs*)—it does not permit use of the revaluation model.

In accordance with the cost model, after initial recognition as an asset, an item of PPE is carried at its cost less any accumulated depreciation and any accumulated impairment losses, ie a cost-depreciation-impairment model, except for land that has an indefinite useful life, which is accounted for at cost less any impairment (see paragraph 30 of IAS 16).

In accordance with the revaluation model, after initial recognition as an asset, an item of PPE with a fair value that can be measured reliably is carried at a revalued amount, which is its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period (see paragraph 30 of IAS 16). The revaluation increase (or decrease) is recognised as income (or expense) classified as other

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\(^{22}\) A class of PPE is a grouping of assets of a similar nature and use in an entity’s operations.
comprehensive income in the statement of comprehensive income. However, to the extent that the revaluation increase (or decrease) would have been recognised as a reversal of an impairment (or an impairment) if the entity had used the cost model (instead of the revaluation model), that portion of the income (or expense) is recognised in profit or loss (see paragraphs 39 and 40 of IAS 16).

Note: the revaluation model for PPE is different from the fair value model for investment property (see IAS 40 Investment Property and Section 16 Investment Property of the IFRS for SMEs).

Paragraphs 32 to 42 of IAS 16 provide guidance for applying the revaluation model.

By discussing issues like those set out below with the class, a teacher provides the class with a meaningful learning experience that contributes to a cohesive understanding of IFRSs and begins to develop the students’ ability to make the judgements that are necessary to measure PPE after it is first recognised in accordance with IAS 16.

Discussion questions

Question 1: To what extent do the revaluation model and the cost model provide investors, lenders and other creditors (existing and potential) with useful financial information for making decisions about providing resources to the entity?

Question 2: Does the existence of the accounting policy choice (between the cost model and the revaluation model) affect the ability of a potential investors or a potential creditor to choose between investment alternatives? Give reasons for your answer.

Question 3: What significant estimates and judgements are an entity’s management likely to make when determining the fair value of an item of its land and buildings in accordance with IFRS 13 Fair Value Measurement and when using the revaluation model in accordance with IAS 16?

Now that the students have been taught the conceptual context for the measurement of PPE they could be taught the mechanics of accounting for PPE using the cost model and the revaluation model. That teaching could then be integrated with the requirements of other IFRSs (eg IFRSs 2, 3 & 5 and IASs 12, 36, 37 and IFRIC 1). Integration with some of those standards (eg IASs 12, 37 and 37) also lends itself to integration with other related courses (eg tax and finance).

Impairment of PPE, if any, is determined in accordance with IAS 36 Impairment of Assets. The impairment principle in IAS 36 specifies that an asset should not be carried at more than its recoverable amount (recoverable amount is the higher of an asset’s fair value less costs to sell and the present value of the future cash flows expected to be derived from an asset).

These notes do not explain the IFRS requirements for the impairment of PPE, because we believe impairment is more appropriately dealt with in separate notes.

Depreciation

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life. (Paragraph 6 of IAS 16) The concept of depreciation is essentially a cost allocation
technique (see paragraph BC29 of IAS 16). It represents the consumption of the asset’s service potential. Consequently, an entity deducts an asset’s residual value from its historical cost (or fair value\(^{(23)}\) if using the revaluation model) to determine the asset’s depreciable amount. An entity’s expectation of increases in an asset’s value, because of inflation or otherwise, does not override the need to deprecate it.

The residual value of an asset is defined 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. (Paragraph 6 of IAS 16) In other words, the residual value is the amount (net of the costs of disposal) that an entity could receive for the asset currently (at the financial reporting date) if the asset were already as old and worn as it will be when the entity expects to dispose of it. Consequently, an increase in the expected residual value of an asset because of past events will affect the depreciable amount; while expectations of future changes in residual value other than the effects of expected wear and tear will not affect it (see paragraph BC29 of the Basis for Conclusions to IAS 16).

Useful life is: (a) the period over which an asset is expected to be available for use by an entity;\(^{(24)}\) or (b) the number of production or similar units expected to be obtained from the asset by an entity (paragraph 6 of IAS 16). Useful life is the entire time it is available for use. Consequently, depreciation of an asset with a limited useful life begins when it is in the location and condition necessary for it to be capable of operating in the manner intended by management (see paragraph 55 of IAS 16). Whether idle or not, it is depreciated, so that the financial statements reflect the consumption of the asset’s service potential that occurs while the asset is held. (paragraph BC31 of IAS 16) However, because the carrying amount of an asset held for sale will be recovered principally through sale rather than through future operations, the accounting for the asset held for sale is a process of valuation\(^{(25)}\) rather than allocation (paragraph BC29 of the Basis for Conclusions on IFRS 5 Non-current Assets Held for Sale and Discontinued Operations). Consequently, PPE held for sale is not depreciated (see paragraph 55 of IAS 16). Instead, if its fair value less costs to sell is less than its carrying amount, it is carried at that lower amount (see paragraph 15 of IFRS 5).

The unit of measure for depreciation is different from that for an item of PPE. 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, because depreciation of the item as a whole using approximation techniques (eg a weighted average useful life for the item as a whole) would not result in depreciation that faithfully represents an entity’s varying expectations for the significant parts (see paragraph BC26 of IAS 16).

Consequently, for measurement purposes only (ie not for presentation and disclosure), an entity allocates the amount initially recognised in respect of an item of PPE to its significant parts and depreciates each such part separately. For example, it may be appropriate to depreciate the airframe and engines of an aircraft separately.

\(^{(23)}\)Fair value is the amount for which the item of PPE could be exchanged between knowledgeable, willing parties in an arm’s length transaction.

\(^{(24)}\)The useful life of an asset is different from its economic life. Useful life is either: (a) the period over which an asset is expected to be economically usable by one or more users; or (b) the number of production or similar units expected to be obtained from the asset by one or more users (paragraph 4 of IAS 17 Leases).

\(^{(25)}\)The process of valuation specified in IFRS 5 is limited effectively to accounting for the impairment of an asset held for sale (and the reversal of impairment losses); it does not allow increasing the carrying amount of an asset held for sale to its fair value less costs to sell.
The depreciation unit of measure does not usually require an entity to subdivide an item of PPE into dozens of component parts. Management uses its judgement to determine when the effect of subdividing is material. For example, when significant components have useful lives that are significantly different from one another (eg a building’s lifts and heating/air conditioning plant may have lives that are shorter than that of the building shell. However, if the heating/air conditioning plant and lifts have similar useful lives and neither has a residual value, they could collectively be treated as a separate component).

A variety of depreciation methods can be used in different circumstances to allocate the depreciable amount of an asset on a systematic basis over its useful life (eg the straight-line method, the diminishing balance method and the units of production method). However, the depreciation method used must most closely reflect the pattern in which the asset’s future economic benefits are expected to be consumed by the entity. (paragraph 60 of IAS 16)

The depreciation method applied to an asset is reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method is changed to reflect the changed pattern. Such a change is accounted for as a change in an accounting estimate in accordance with IAS 8 because it is a change in the technique used to apply the entity’s accounting policy to recognise depreciation as an asset’s future economic benefits are consumed (see paragraph BC33 of the Basis for Conclusions on IAS 16).

By discussing examples like those set out below with the class, a teacher begins to develop the students’ understanding of how to apply the depreciation principles in IAS 16.

Example 1: depreciation

On 1 September 20X0 an entity purchased a machine for CU1,000,000 to manufacture a chemical. In September the entity installed the machine at a cost of CU25,000. In October the entity made modifications to the machine at a cost of CU60,000. In November the entity tested the machine and made fine-tuning adjustments at a cost of CU15,000. On 1 December 20X1 the machine was ready for use as intended by management. However, the entity commenced production using the machine only on 1 January 20X2 (ie the machine was idle in December).

If the machine is serviced when it has produced 50,000 units, it could be used to produce about 100,000 units before it would be worthless and in accordance with industry regulations must be dismantled and the components recycled.

At 1 January 20X1 (when the machine was installed) and 31 December 20X1 (the end of the reporting period) management:

- estimate the cost of the service (when the machine is in the condition it is expected to be after producing 50,000 units) at about CU100,000, if performed today.

- estimate that an independent specialist would currently charge about CU40,000 to dismantle the machine and a further CU60,000 to assume the obligation to recycle it. However, management intends avoiding incurring the cost of recycling the machine by selling it to a competitor after it has manufactured about 75,000 units.

- estimate that machine will produce its 75,000th unit when it has operated for 10 years.
- estimate that the entity would receive CU100,000 (CU150,000 selling price less CU50,000 selling costs (including CU40,000 costs to dismantle in order to sell)) for the machine today if it were already as old and worn as it will be when it has produced 75,000 units.

At 31 December 20X4, because of the development of new recycling technologies in 20X4 and the discovery of alternative uses for the recycled materials, management:

- estimate that an independent specialist would now charge about CU40,000 to dismantle the machine and a further CU10,000 to assume the obligation to recycle it. However, the entity would now receive a previously unforeseen cash inflow of CU100,000 from the sale of the recycled material.

- estimate that the entity would receive CU250,000 (CU300,000 selling price less CU50,000 selling costs (including CU40,000 costs to dismantle in order to sell)) for the machine today if it were already as old and worn as it will be when it has produced 75,000 units.

Management’s other estimates about the machine have not changed.

On 1 September 20X6 the entity committed itself to a plan to sell the machine to an independent third party for CU2,000,000. The entity’s management announced the plan to the public and offered voluntary redundancy to the employees who operate that machine.

On 1 March 20X7 significantly all the risks and rewards of ownership of the machine transferred from the entity to the independent third party that acquired the machine.

**Required:**

**Question 1:** Explain, with reference to the accrual basis of accounting, how the entity is required to account for the servicing of the machine and its subsequent dismantling and recycling in accordance with IAS 16.

**Question 2:** Discuss how the accounting for depreciation in accordance with the IFRS for SMEs would differ from full IFRSs. Information prepared in conformity with which standard (full IFRSs or the IFRS for SMEs) better satisfies the objective of financial information? Give reasons for your answer.

**Example 2: temporarily idle**

On 1 January 20X1 an entity acquired manufacturing equipment for CU1,000,000. The entity accounts for machinery using the revaluation model in IAS 16 Property, Plant and Equipment. In accounting for revaluations, the entity restates accumulated depreciation 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.

On 31 December 20X5 an entity ceases to use manufacturing equipment because demand for its product has declined. However, the equipment is maintained in workable condition and it is expected that it will be brought back into use if demand picks up (ie the plant is not regarded as abandoned). Consequently, management determined the recoverable amount of the manufacturing equipment at CU100,000 (value in use = fair value; costs to sell are immaterial).

On 31 December 20X5, after calculating depreciation for 20X5 but before impairing the machine, the carrying amount of the machine was CU1,000,000 (CU2,000,000 gross carrying amount less CU1,000,000 accumulated depreciation).
At 31 December 20X6 the recoverable amount of the manufacturing equipment is CU500,000 (value in use = fair value; costs to sell are immaterial) because demand for the good manufactured using the machine has increased significantly.

Management have, since acquiring the machine, estimated its useful life at 10 years from the date of acquisition. The entity intends to use the machine throughout its useful life, at the end of which the machine is expected to be scrapped. No material cash flows are expected to arise from the scrapping of the machine. Management expects to consume the machine’s future economic benefits evenly over its 10-year useful life.

Required:

Question 1: Explain, with reference to the Conceptual Framework, how the entity would account for the machine in accordance with IFRSs in 20X6.

Question 2: Discuss how the accounting for depreciation in accordance with the IFRS for SMEs would differ from full IFRSs. Information prepared in conformity with which standard (full IFRSs or the IFRS for SMEs) better satisfies the objective of financial information? Explain your reasoning.

Note: using the cost model specified in Section 17 Property, Plant and Equipment of the IFRS for SMEs, on 1 January 20X6 the carrying amount of the mothballed manufacturing equipment would be CU100,000 (ie CU1,000,000 cost less CU500,000 accumulated depreciation less CU400,000 impairment recognised at 31 December 20X5).

Assignment

Find in the IFRS financial statements of exchange-listed entities examples of items of PPE that have a variety of depreciation methods, useful lives and residual values.

Your task is to explain:

(i) whether you agree with the estimates made by the entities whose financial statements you examined, giving reasons for your answers;

(ii) Are estimates that different entities make about similar items of PPE consistent? What reasons could there be for the variations found, if any?

(iii) Would the objective of financial information be better satisfied if the IASB were to specify particular depreciation rates and useful lives for each type of PPE (eg 25 per cent of the historical cost of computers must be recognised as an expense (depreciation) per year)? Explain your reasoning.

(iv) Would financial information prepared in accordance with IFRSs better satisfy the objective of general purpose financial reporting if the IASB were to specify only one measurement model for PPE? Describe the model you would select, and give reasons for your choice. (v) To what extent could a measurement model other than those specified by the IASB provide useful information to existing and potential investors, lenders and other creditors; eg could fair value or historical cost (ie without depreciation and impairment) provide more useful information than IFRS measurement models?

Derecognition

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The carrying amount of an item of PPE is derecognised at the earlier of either its disposal, or when no future economic benefits are expected from its use or disposal (paragraph 67 of IAS 16). The recognition principle for revenue from sales of goods is applied to recognition of gains on disposals of items of PPE (see paragraph 69 of IAS 16). However, contrary to the IFRS presentation principle that expenses are not offset against income (see paragraph 32 of IAS 1), paragraph 68 of IAS 16 specifies that the gain or loss arising from the derecognition of an item of PPE is included in profit or loss when the item is derecognised (unless IAS 17 requires otherwise on a sale and leaseback). It also prohibits classifying such gains as revenue because revenue from the sale of goods is typically more likely to recur in comparable amounts than are gains from sales of items of PPE. Consequently, users of financial statements would consider these gains and the proceeds from an entity’s sale of goods in the course of its ordinary activities differently in their evaluation of an entity’s past results and their projections of future cash flows (paragraph BC35 of the Basis for Conclusions to IAS 16). Consistently with that reason, the IASB concluded that entities whose ordinary activities include renting and subsequently selling the same assets should recognise revenue from both renting and selling the assets, because the presentation of gross selling revenue, rather than of a net gain or loss on the sale of the assets, would better reflect the ordinary activities of such entities (paragraph BC35C of the Basis for Conclusions to IAS 16). Consequently, in accordance with paragraph 68A of IAS 16, an entity that, in the course of its ordinary activities, routinely sells items of PPE that it has held for rental to others, must transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale. Consequently, the proceeds from the sale of such assets are recognised as revenue in accordance with IAS 18 Revenue. IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.

<table>
<thead>
<tr>
<th>Example 1: sale</th>
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<tbody>
<tr>
<td>On 31 December 20X5 an entity sold a machine used by the entity in the manufacture of goods for CU1,500 when the carrying amount of the machine was CU1,000 (its depreciated historical cost).</td>
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<tr>
<td><strong>Required:</strong></td>
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<tr>
<td>Question 1: Explain, with reference to the Conceptual Framework and IAS 16, how the entity would present the disposal of the machine in its financial statements for the year ended 31 December 20X5.</td>
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<tr>
<td>Question 2: Explain how your answer to question 1 would be different (if at all) if the entity prepares its financial statements in accordance with the IFRS for SMEs.</td>
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<th>Example 2: building held for sale</th>
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<tr>
<td>Management have, since acquiring the building, estimated its useful life at 50 years from the date of acquisition. Before deciding to sell the building, the entity intended to use the building throughout its useful life, at the end of which the building was expected to be</td>
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</table>

By discussing examples like those set out below with the class, a teacher helps to develop the students’ understanding of how to apply the derecognition principles in IAS 16 and their interaction with other IFRSs.
worthless. No material cash flows are expected to arise from the scrapping of the building. Management expects to consume the machine’s future economic benefits evenly over its ten-year useful life.

On 31 December 20X5 the entity committed itself to a plan to sell its headquarters building and initiated actions to locate a buyer. The entity intends to transfer the building to a buyer after it vacates the building. The time necessary to vacate the building is usual and customary for sales of such assets. It is highly probable that the building will be sold in the next few months.

At 31 December 20X5:
- the carrying amount of the building is CU1,000,000 (CU2,000,000 historical cost less CU1,000,000 accumulated depreciation).
- the fair value of the building is CU3,000,000
- estimated costs to sell are CU300,000.

On 2 February 20X6 the entity incurred costs of CU250,000 in selling the building for CU3,100,000.

Required:

Question 1: Explain, with reference to the Conceptual Framework, IFRS 5 and IAS 16, how the entity would present the disposal of the building in its financial statements for the years ended 31 December 20X5 and 31 December 20X6.

Question 2: Explain how your answer to question 1 would be different (if at all) if the entity prepares its financial statements in accordance with the IFRS for SMEs.

Question 3: Do you consider that financial information prepared in conformity with full IFRSs or with the IFRS for SMEs would better satisfy the objective of financial information? Give reasons for your view.

Example 3: abandonment

In October 20X5 an entity decides to abandon all of its cotton mills, which constitute a major line of business. All work stops at the cotton mills on 30 June 20X6.

Required:

Explain, with reference to the Conceptual Framework and IFRSs and the IFRS for SMEs:
1. Why the results and cash flows of the cotton mills are treated as continuing operations in the entity’s financial statements for the year ended 31 December 20X5.
2. Why the results and cash flows of the cotton mills are treated as discontinued operations in the financial statements for the year ended 31 December 20X6, and the entity makes the disclosures required by paragraphs 33 and 34 of the IFRS 5.

Example 4: revenue or gain?

A chain of bicycle shops holds bicycles for short-term hire and for sale. The bicycles available for hire are used for two or three years and then sold by the shops as second-hand models.
Presentation and disclosure

The objective of general purpose financial reporting\(^{(26)}\) forms the foundation of the Conceptual Framework. Other aspects of the Conceptual Framework including presentation and disclosure—(a reporting entity concept, the qualitative characteristics of, and the constraint on, useful financial information, elements of financial statements, recognition, measurement, presentation and disclosure)—flow logically from the objective. (paragraph OB1 of the Conceptual Framework)

The carrying amount of PPE is presented as a separate line item in the statement of financial position (see paragraph 54(a) of IAS 1). The part of these notes dedicated to the scope of PPE explained the process of sub-classification in order to display information in the manner most useful to users for the purpose of making economic decisions. (Paragraph 4.3 of the Conceptual Framework) For example, land is classified by function in the business of the entity in order to display information in the manner most useful to users for the purpose of making economic decisions, as PPE (if it is held for use in the production or supply of goods or services or for administration purposes), as investment property (if it is held to earn lease rentals for capital appreciation or both) or as inventory (if it is held for sale in the ordinary course of business). Sometimes significant judgement is necessary to classify assets.

If the entity chooses to use the revaluation model for some classes of PPE and the cost model for others, further subclassification by class of PPE is necessary because the entire class of PPE must then be simultaneously revalued\(^{(27)}\) (see paragraphs 36 and 38 of IAS 16).

Subclassification by class is also required for the disclosure of PPE even when only one measurement model is used.

A class of PPE is defined as a grouping of assets of similar nature and use in an entity’s operations (see paragraph 37 of IAS 16). As in the case of many IFRSs judgement is used in applying that subclassification principle.

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\(^{(26)}\) to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit. (paragraph OB2 of the Conceptual Framework)

\(^{(27)}\) simultaneous revaluation (or a rolling basis of revaluation) is required to avoid selective revaluation within a class of PPE.
By discussing examples like the one set out below with the class, the teacher begins to develop the students’ ability to make the judgements that are necessary to separate PPE into meaningful classes in accordance with IAS 16.

**Example—subclassication principle (class of PPE)**

An entity has the following items of PPE:

- **Property A**: a vacant plot of land on which it intends to construct its new administration headquarters;
- **Property B**: a plot of land that it operates as a landfill site;
- **Property C**: a plot of land on which its existing administration headquarters are built;
- **Property D**: a plot of land on which its direct sales office is built;
- **Properties E1–E10**: ten separate retail outlets and the land on which they are built;
- **Equipment A**: computer systems at its headquarters and direct sales office that are integrated with the point of sale computer systems in the retail outlets;
- **Equipment B**: point of sale computer systems in each of its retail outlets;
- **Furniture and fittings in its administrative headquarters and its sales office**;
- **Shop fixtures and fittings in its retail outlets**.

Some discussion points:

The nature of land without a building is different to the nature of land on which a building has been erected. Consequently, land without a building is a separate class of asset from land and buildings.

Furthermore, the nature and use of land that is operated as a landfill site is different from vacant land.

Judgement must be applied to determine whether the entity’s retail outlets are sufficiently different in nature and use from office buildings to be treated as a separate class of land and buildings.

The computer equipment is integrated across the organisation and would probably be classified as a single separate class of asset.

Furniture and fittings used for administrative purposes could be sufficiently different to shop fixtures and fittings in retail outlets to be classified in two separate classes of assets.

Materiality (capable of affecting a primary user’s decision made on the basis of the financial statement information) is also an important consideration in making those classification judgements.

Paragraphs 73–79 of IAS 16 prescribe disclosure requirements for PPE. Those disclosures are usually set out in the notes. The notes:

(a) present information about the basis of preparation of the financial statements and the specific accounting policies used (see paragraph 112(a) of IAS 1).

For example, for each class of PPE, an entity discloses the measurement base
used (e.g. cost model or revaluation model), depreciation methods used (e.g. straight-line, reducing balance or specific identification) and useful lives.

(b) disclose information about the assumptions that the entity makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year (see paragraph 125 of IAS 1). For example, the assumptions made in measuring the initial estimate of the costs of dismantling and removing the nuclear power plant and restoring the site on which it is located, the obligation for which was incurs when the plant was constructed.

(c) disclose, in the summary of significant accounting policies or other notes, the judgements, apart from those involving estimations, that management has made in the process of applying the entity’s accounting policies and that have the most significant effect on the amounts recognised in the financial statements (see paragraph 122 of IAS 1). For example, management might have used significant judgement in deciding whether a particular and significant building it owns is an investment property or PPE.

(d) disclose the information required by IFRSs that is not presented elsewhere in the financial statements (see paragraph 112(b) of IAS 1). For example, IAS 16 requires disclosure of the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period and a reconciliation of the carrying amount at the beginning and end of the period showing:

(i) additions;
(ii) assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IFRS 5 and other disposals;
(iii) acquisitions through business combinations;
(iv) increases or decreases resulting from revaluations and from impairment losses recognised or reversed in other comprehensive income 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.

(e) provide information that is not presented elsewhere in the financial statements, but is relevant to an understanding of any of them (e.g. additional disclosures when necessary to achieve a fair presentation (see paragraphs 15 and 112(c) of IAS 1).

The part of these notes dedicated to the derecognition of PPE explained that:

- contrary to the IFRS presentation principle that expenses are not offset against income, the gain or loss arising from the derecognition of an item of PPE is included in profit or loss when the item is derecognised.

- the gains on disposal of PPE are not recognised as revenue.
entities whose ordinary activities include renting and subsequently selling the same assets should recognise revenue from both renting and selling the assets (rather than revenue only from renting and a net gain or loss on the sale of the assets) and that IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.

Changes in accounting policies, transitional provisions and effective dates

Users of financial statements need to be able to compare the financial statements of an entity over time to identify trends in its financial position, financial performance and cash flows. The same accounting policies are therefore applied within each period and from one period to the next. (see paragraph 15 of IAS 8) Consequently, an entity applies its accounting policies for PPE consistently from one period to the next. However, an entity changes an accounting policy only if:

(a) the change is required by an IFRS (eg when the entity first applies a new IFRS or an amendment to an IFRS); or

(b) the change results in the financial statements providing reliable and more relevant information about the effects of transactions, other events or conditions on the entity’s financial position, financial performance or cash flows (see paragraph 14 of IAS 8).

For example, a change to the revaluation model from the cost model would provide a more current measure of the PPE asset in the statement of financial position and a more current measure of depreciation).

Consequently, the general principle for accounting for a change in accounting policy is retrospectively application, ie restate comparative figures as if the new accounting policy had always been applied by the entity (see paragraphs 19 and 23 of IAS 8). However, application of the cost constraint (see paragraphs QC35–QC39 of the Conceptual Framework) frequently results in the IASB specifying particular transitional provisions that create exceptions to the general principle of accounting for particular changes in accounting policies retrospectively (see paragraph 19(a) of IAS 16). Similarly, the initial accounting for a change of accounting policy for PPE from the cost model to the revaluation model is accounted for as a revaluation in accordance with IAS 16 rather than a change in accounting policy (see paragraph 17 of IAS 8). Furthermore, paragraphs 80–81E prescribe transitional provisions and effective dates for amendments to IAS 16.

Paragraphs 28 to 31 of IAS 8 specify disclosure requirements for a change in accounting policy.
Mary Barth  
*Professor of Accounting,*  
**Stanford University** and  
*Academic Advisor and former member,*  
**IASB**

Bob Garnett  
*Chairman,*  
**IFRS Interpretations Committee** and  
*former member,*  
**IASB**

Katherine Schipper  
*Professor of Accounting,*  
**Duke University** and  
*former member,*  
**FASB**

Donna Street  
*Professor of Accounting,*  
**University of Dayton** and  
*Past President and Director of Research and Educational Activities,*  
**IAAER**

Ann Tarca  
*Professor of Accounting,*  
**University of Western Australia** and  
*Academic Fellow, Education Initiative,*  
**IFRS Foundation**

Michael Wells  
*Director of IFRS Education Initiative,*  
**IFRS Foundation** and  
*Member of Board of Advisors,*  
**IAAER**
Demonstrating Framework-based teaching for MBAs

Mary Barth  
Professor of Accounting,  
Stanford University and  
Academic Advisor to the  
IASB

Katherine Schipper  
Professor of Accounting,  
Duke University and  
former Member,  
FASB
Consolidation

• Objective of financial reporting
• Concepts most relevant in the circumstances
  – elements definitions, particularly asset definition
  – representational faithfulness
• Core principle
  – a group reporting entity includes the parent and all entities the parent controls, i.e., its subsidiaries
• Key judgment: control
  – which entities does the reporting entity control?
  – how does control manifest: evaluate indicators
Consolidation

Learning Objectives

1. Develop an understanding of how the financial statements of two or more entities combine into a consolidated statement of the group of entities as a single economic entity
2. Understand the criteria for consolidation and why those criteria exist
3. Understand why consolidated financial statements are the primary financial statements for a consolidated group
4. Appreciate the effects of consolidation on financial statements and how the exercise of judgment regarding whether one entity controls another can affect investor perceptions regarding the entity

Consolidated financial statements: Financial statements of a parent and its subsidiaries as a single economic unit

Parent: An entity that has one or more subsidiaries

Subsidiary: An entity that is controlled by another entity (known as the parent)

Control: Power to govern the financial and operating policies of an entity so as to obtain benefits from its activities

Indicators of control: More than 50% voting power, outright or by virtue of an agreement, and power to (i) govern financial and operating policies under statute or agreement, (ii) appoint or remove majority of governing board, (iii) cast majority of votes at meeting of governing body. Consider all facts and circumstances.

Equity method: Method of accounting whereby the investment is initially recognized at cost and adjusted thereafter for the post-acquisition change in the investor’s share of the net assets of the investee. The profit or loss of the investor includes the investor’s share of the profit or loss of the investee. (Used for significant influence investments and joint ventures)
Why consolidation?

• **Question**: Why are entities required to present consolidated financial statements?
  – Provide information about economic entity
    – investors need information about all assets and liabilities of combined entity
  – Definition of asset based on control
    – control through an entity is indirect control
    – claims against those assets, i.e., liabilities and equity
  – With control, entity can dictate use or settlement
  – Do not want legal form to dictate financial reporting
    – legal entity structure provides some boundaries and constraints, but so do contracts (e.g., collateral pledges)

Coca-Cola Company and CCE

During 1986, Coke decreased its ownership of Coca-Cola Enterprises (CCE) from 100% to 49% by selling 51% of the common stock of CCE in a public offering. Although Coke no longer owns a majority of CCE’s voting stock, the relationship between the two companies remains close. CCE derives most of its revenue from the sale of Coke soft drinks, both companies’ headquarters are in the same building in Atlanta, and CCE’s board of directors includes several officers of Coke. Coke accounts for its investment in CCE using the equity method.

• **Question**: After divesting 51% of Coca-Cola Enterprises (CCE), did Coke lose control of CCE?
## Consolidated Income Statement for Coke and CCE

<table>
<thead>
<tr>
<th></th>
<th>Coke</th>
<th>CCE</th>
<th>Adjustments</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Debt</td>
<td></td>
<td>Credit</td>
<td></td>
</tr>
<tr>
<td><strong>Net Operating Revenues</strong></td>
<td>$7,608,341</td>
<td>$3,329,134</td>
<td>$662,800</td>
<td>$10,334,675</td>
</tr>
<tr>
<td><strong>Cost of sales</strong></td>
<td>3,633,169</td>
<td>1,916,724</td>
<td>662,800</td>
<td>5,219,695</td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>4,025,182</td>
<td>1,412,410</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Selling, administrative, and general expenses</strong></td>
<td>2,665,022</td>
<td>1,075,290</td>
<td>36,370</td>
<td>4,047,682</td>
</tr>
<tr>
<td><strong>Provision for restructuring operations etc.</strong></td>
<td>119,533</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating Income</strong></td>
<td>1,337,788</td>
<td>337,120</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interest income</strong></td>
<td>207,164</td>
<td>11,566</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interest expense</strong></td>
<td>279,012</td>
<td>171,466</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity income</strong></td>
<td>119,533</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other income (deductions)</strong></td>
<td>34</td>
<td>(4,445)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gain on sale of stock by former subsidiaries</strong></td>
<td>39,654</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Income from continuing operations before taxes and noncontrolling interests</strong></td>
<td>1,410,163</td>
<td>172,775</td>
<td>36,370</td>
<td>1,660,910</td>
</tr>
<tr>
<td><strong>Income taxes</strong></td>
<td>484,027</td>
<td>84,403</td>
<td></td>
<td>578,430</td>
</tr>
<tr>
<td><strong>Income from continuing operations before noncontrolling interests</strong></td>
<td>916,136</td>
<td>88,372</td>
<td>58,470</td>
<td>1,052,988</td>
</tr>
<tr>
<td><strong>Net income attributable to noncontrolling interests</strong></td>
<td>916,136</td>
<td>88,372</td>
<td>58,470</td>
<td>1,052,988</td>
</tr>
<tr>
<td><strong>Net income</strong></td>
<td>$916,136</td>
<td>$88,372</td>
<td>58,470</td>
<td>$1,052,988</td>
</tr>
</tbody>
</table>
### Consolidated Statement of Financial Position for Coke and CCE

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>Coke</th>
<th>CCE</th>
<th>Adjustments</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$1,017,624</td>
<td>$11,297</td>
<td>$1,028,921</td>
<td></td>
</tr>
<tr>
<td>Marketable securities, at cost (approximates market)</td>
<td>450,640</td>
<td></td>
<td>450,640</td>
<td></td>
</tr>
<tr>
<td>Trade accounts receivable, net</td>
<td>672,160</td>
<td>262,658</td>
<td>934,818</td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>776,740</td>
<td>117,724</td>
<td>894,464</td>
<td></td>
</tr>
<tr>
<td>Prepaid expenses and other assets</td>
<td>674,148</td>
<td>60,492</td>
<td>734,640</td>
<td></td>
</tr>
<tr>
<td>Notes receivable-Columbia Pictures Entertainment, Inc.</td>
<td>544,989</td>
<td></td>
<td>544,989</td>
<td></td>
</tr>
<tr>
<td>TOTAL CURRENT ASSETS</td>
<td>4,136,261</td>
<td>451,991</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INVESTMENTS AND OTHER ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments in affiliates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbia Pictures Entertainment, Inc.</td>
<td>989,469</td>
<td></td>
<td>989,469</td>
<td></td>
</tr>
<tr>
<td>Coca-Cola Enterprises Inc.</td>
<td>749,159</td>
<td></td>
<td>749,159</td>
<td></td>
</tr>
<tr>
<td>T.C.C. Beverages Ltd</td>
<td>84,493</td>
<td></td>
<td>84,493</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>435,484</td>
<td>69,349</td>
<td>504,833</td>
<td></td>
</tr>
<tr>
<td>Receivables and other assets</td>
<td>289,000</td>
<td></td>
<td>289,000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,547,545</td>
<td>60,949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROPERTY, PLANT AND EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>112,740</td>
<td>124,831</td>
<td>237,571</td>
<td></td>
</tr>
<tr>
<td>Buildings and improvements</td>
<td>763,317</td>
<td>365,657</td>
<td>1,128,974</td>
<td></td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>1,488,464</td>
<td>943,917</td>
<td>2,432,381</td>
<td></td>
</tr>
<tr>
<td>Containers</td>
<td>275,120</td>
<td>63,044</td>
<td>338,164</td>
<td></td>
</tr>
<tr>
<td>Less allowances for depreciation</td>
<td>(1,041,989)</td>
<td>(459,265)</td>
<td>(1,501,254)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,597,659</td>
<td>1,038,134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOODWILL AND OTHER INTANGIBLE ASSETS</td>
<td>74,155</td>
<td>2,890,958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ASSETS</td>
<td>$8,356,560</td>
<td>$4,260,024</td>
<td></td>
<td>$11,824,560</td>
</tr>
</tbody>
</table>
### Consolidated Statement of Financial Position for Coke and CCE

<table>
<thead>
<tr>
<th></th>
<th>Coke</th>
<th>CCE</th>
<th>Adjustments</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Debt</td>
<td>Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIABILITIES AND SHAREHOLDERS’ EQUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and Accrued expenses</td>
<td>$1,430,193</td>
<td>$376,448</td>
<td>$1,806,641</td>
<td></td>
</tr>
<tr>
<td>Accounts payable to The Coca-Cola Company</td>
<td>$31,475</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leases and notes payable</td>
<td>$1,665,408</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current maturities of term debt</td>
<td>$213,699</td>
<td>$66,691</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends payable in-kind</td>
<td>335,917</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accrued taxes — including income taxes</td>
<td>454,313</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL CURRENT LIABILITIES</td>
<td>4,118,540</td>
<td>474,014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG-TERM DEBT</td>
<td>803,352</td>
<td>2,091,599</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFERRED INCOME TAXES</td>
<td>209,800</td>
<td>152,992</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUE TO COLUMBIA PICTURES ENTERTAINMENT, INC.</td>
<td>5,782</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHAREHOLDERS’ EQUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common stock at par</td>
<td>416,977</td>
<td>140,260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital surplus</td>
<td>338,514</td>
<td></td>
<td>1,264,965</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>3,783,625</td>
<td>127,513</td>
<td>3,811,138</td>
<td></td>
</tr>
<tr>
<td>Foreign currency translation adjustment</td>
<td>(3,047)</td>
<td></td>
<td>(3,047)</td>
<td></td>
</tr>
<tr>
<td>Less treasury stock, at cost</td>
<td>(1,309,361)</td>
<td>6,691</td>
<td>(1,302,660)</td>
<td></td>
</tr>
<tr>
<td>Noncontrolling interests</td>
<td>776,988</td>
<td></td>
<td>776,988</td>
<td></td>
</tr>
<tr>
<td>TOTAL SHAREHOLDERS’ EQUITY</td>
<td>3,223,789</td>
<td>1,626,147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL LIABILITIES AND SHAREHOLDERS’ EQUITY</td>
<td>$3,865,580</td>
<td>$4,250,204</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Financial ratios: Coke, CCE, and Consolidated

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Coke</th>
<th>CCE</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt to equity</td>
<td>0.84</td>
<td>1.41</td>
<td>1.21</td>
</tr>
<tr>
<td>Times interest earned</td>
<td>6.05</td>
<td>2.01</td>
<td>4.42</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>4.94</td>
<td>15.35</td>
<td>5.69</td>
</tr>
<tr>
<td>Receivables turnover</td>
<td>11.39</td>
<td>13.50</td>
<td>11.65</td>
</tr>
<tr>
<td>Gross profit margin</td>
<td>53%</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>Return on sales</td>
<td>12%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Return on assets</td>
<td>21%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>Return on equity</td>
<td>28.4%</td>
<td>5.8%</td>
<td>Total: 24% CI: 28.4%</td>
</tr>
</tbody>
</table>

**Question:** Are Coke’s financial statements more useful to investors than if Coke had consolidated CCE?
Columbia Pictures Enterprises

- On December 17, 1987, the Company's Board of Directors approved a one-time dividend of approximately 34.1 million shares of Columbia Pictures Entertainment (CPE) stock. This special dividend, accounted for as a partial spin-off based on the Company's carrying value, was distributed on January 15, 1988 and reduced the Company's ownership interest in CPE to approximately 49 percent. On December 18, 1987, the Company purchased $100 million of CPE adjustable rate non-voting, non-convertible preferred stock. Consistent with its reduced ownership interest, the Company has commenced reporting its investment in CPE under the equity method of accounting.

Discussion questions

- Columbia Pictures
  - Did Coke lose control of CPE?
  - Would consolidated financial statements for Coke and CPE be more informative to investors?

- Coca-Cola Enterprises and Columbia Pictures
  - Why do you think Coke divested 51% of CCE and CPE?
We have analyzed the proposed accounting included in the Exposure Draft and considered the perceived benefits of reporting additional financial information to our share owners and other users of our financial statements against the cost of compliance. Based on this analysis, we have concluded that the proposed accounting rules, particularly regarding the definition of control, would not enhance the overall usefulness and relevance of our financial statements and, in fact, provide a result that is less meaningful and more costly to implement and maintain than exists under the current rules. Therefore, we strongly oppose the issuance of a new accounting standard that includes the definition of control included in the Exposure Draft.

General Comments

The Board’s definition of control as stated in paragraph 10 is as follows:

“Control of an entity is power over its assets - power to use or direct the use of the individual assets of another entity in essentially the same ways as the controlling entity can use its own assets.”

We believe that this expanded definition of control is not workable and would replace an objective, verifiable test (more than 50 percent voting interest) with a highly subjective test based on individual facts and circumstances for each potentially controlled entity. In many cases, the subjective decision of whether control exists would be a continuing decision and could result in consolidation decisions that changed from year-to-year based on changes in facts and circumstances without a change in voting interest. This subjective determination of control for less than 50 percent owned entities could result in consolidation of entities over which control does not exist currently or for which control (by definition) may not exist in future periods. Therefore, this could result in misleading consolidated financial statements, create comparability issues within a company’s financial statements from year to year and increase diversity in practice.

My staff and I have reviewed the FASB Exposure Draft, “Consolidated Financial Statements: Policy and Procedures”. We support the Board’s efforts to establish new guidance for consolidation of financial statements. We believe the Exposure Draft attempts to address most of the observed deficiencies that currently exist in the area of determining when entities should be consolidated. In general, we support the conclusions reached in the Exposure Draft. Below are some suggestions that we believe will improve the operationality of the final standard.

Effective Control

We agree with the inclusion of the concept of effective control as a condition requiring consolidation of an entity. We believe this concept will reduce potentially abusive situations where an entity is not consolidating an affiliate even though the entity effectively possesses the power to use or direct the use of the affiliate’s assets, such as the use of the “49% ownership” structure.
Closing remarks

• Companies have complex legal structures, but reporting entity takes an economic entity approach
• Investors should understand the economic entity; legal structure has implications, but is not determinative
• Consolidation criteria are based on control—stems from definition of an asset
  • Control is not always easy to assess—with no other considerations, 51% of voting power results in control
  • But, other agreements, practices, and actions can indicate that percentage of voting power alone is insufficient to determine control

Questions or comments?

Expressions of individual views by members of the IASB and their staff are encouraged. The views expressed in this presentation are those of the presenter. Official positions of the IASB on accounting matters are determined only after extensive due process and deliberation.
The Coca-Cola Company

On Saturday, July 9, 1988, Brad Davis, Wharton Class of 1986, was driving his car through West Philadelphia on his way home from his office in Center City. Davis had just finished the management training program at Philadelphia National Bank (PNB) and was promoted to Vice President (which sounded impressive until Davis realized that the bank has hundreds of Vice Presidents). He heard his pager beep and looked at the number. It was a 609 area code, meaning it must be his boss, Dick Murray, Executive Vice-President and head of Eastern Corporate, calling from his house at the New Jersey shore. He pulled over and telephoned Murray.

“Dick, I just left work, what is up?” Davis said.

“Davis, I have a big deal I need you to work on tomorrow,” Murray began. “I just met a Senior Vice President for Coca-Cola Enterprises. I told him what I did for a living, and he said that he had just gotten approval from headquarters in Atlanta to build a new state-of-the-art bottling plant in Northeast Philadelphia, and they were looking for debt financing. The reintroduction of Coke Classic and the new Max Headroom commercials have sales growing rapidly, and the bottling company needs to expand.”

“Bottling company? Is there more than one Coca-Cola company?” Davis asked.

“Yes,” Murray explained, “The Coca-Cola Company (Coke) is the world’s leading marketer of soft drink syrups and concentrates. Through a network of independently-owned bottlers, Coke products are available in more than 155 countries and account for more than 45 percent of all soft drinks sold worldwide, excluding the Soviet Union and China. Coca Cola Enterprises (CCE) is the world’s largest soft drink bottler. CCE bottles and markets the soft drink brands of Coke including Coca-Cola Classic, New Coke, Sprite, Minute Maid, Tab, and Fanta. In most of its territories, CCE also produces and sells soft drink brands of other companies. The exclusive territories of CCE have a population of more than 100 million people in 35 states and Canada.”

“Wow!” Davis said.

“During 1986, Coke decreased its ownership of CCE from 100% to 49% by selling 51% of the common stock of CCE in a public offering. Although Coke no longer owns a majority of CCE’s voting stock, the relationship between the two companies remains close. CCE derives most of its revenue from the sale of Coke soft drinks, both companies’ headquarters are in the same building in Atlanta, and CCE’s board of directors includes several officers of Coke.”

“That’s interesting,” Davis said. “Around the time of Coke’s spinoff, I was taking a course on accounting for mergers and acquisitions. About that time the Financial Accounting Standards
Board (FASB) was proposing a new standard, Statement of Financial Accounting Standards (SFAS) No. 94, to go into effect in 1987. The new standard would require companies to consolidate all majority-owned subsidiaries, including subsidiaries with “nonhomogeneous” operations, a large minority interest, or a foreign location. Companies were not required to consolidate these subsidiaries prior to SFAS 94. I wonder whether Coke was trying to get around this rule by spinning off CCE.”

“Hmmm,” said Murray, thoughtfully. “I told the CCE guy that we would love to provide the debt financing for the new plant. But, I think we should first reconsolidate Coke and CCE to decide how risky the combined companies are. My guess is that any debt exposure to CCE is really debt exposure to Coke, who is the virtual parent. The CCE guy is having his Vice President fax their financial statements to our office. Can you get a copy of Coke’s financial statements?”

“Sure,” said Davis.

“Great. I want you to compute ratios for Coke and CCE as separate companies and as a consolidated company. I should be back in the office first thing Monday morning, so let’s meet then to talk,” said Murray.

Davis said good-bye and headed back to the office to work. Once in his office at Broad and Chestnut, Davis found a copy of Coke’s financial statements (see Exhibit 1) and got CCE’s financial statements and list of Board Members from the fax machine (see Exhibits 2 and 3). Then, he got to work.
## Exhibit 1: Coca-Cola Financial Statements

THE COCA-COLA COMPANY  
Consolidated Balance Sheets (In thousands except per share data)

<table>
<thead>
<tr>
<th></th>
<th>December 31, 1987</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CURRENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$1,017,624</td>
<td>$606,848</td>
</tr>
<tr>
<td>Marketable securities, at cost (approximates market)</td>
<td>450,640</td>
<td>261,785</td>
</tr>
<tr>
<td>Trade accounts receivable, less allowances of $13,429 in 1987 and $11,657 in 1986</td>
<td>672,160</td>
<td>672,568</td>
</tr>
<tr>
<td>Inventories</td>
<td>776,740</td>
<td>695,437</td>
</tr>
<tr>
<td>Prepaid expenses and other assets</td>
<td>674,148</td>
<td>932,630</td>
</tr>
<tr>
<td>Notes receivable-Columbia Pictures Entertainment, Inc.</td>
<td>544,889</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT ASSETS</strong></td>
<td>4,136,201</td>
<td>3,169,268</td>
</tr>
<tr>
<td><strong>INVESTMENTS AND OTHER ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments in affiliates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbia Pictures Entertainment, Inc.</td>
<td>989,409</td>
<td>1,436,707</td>
</tr>
<tr>
<td>Coca-Cola Enterprises Inc.</td>
<td>749,159</td>
<td>709,287</td>
</tr>
<tr>
<td>T.C.C. Beverages Ltd</td>
<td>84,493</td>
<td>87,696</td>
</tr>
<tr>
<td>Other</td>
<td>435,484</td>
<td>212,194</td>
</tr>
<tr>
<td>Receivables and other assets</td>
<td>289,000</td>
<td>217,046</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,547,545</td>
<td>2,662,930</td>
</tr>
<tr>
<td><strong>PROPERTY, PLANT AND EQUIPMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>112,741</td>
<td>98,842</td>
</tr>
<tr>
<td>Buildings and improvements</td>
<td>763,317</td>
<td>695,029</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>1,488,464</td>
<td>1,390,689</td>
</tr>
<tr>
<td>Containers</td>
<td>275,120</td>
<td>287,672</td>
</tr>
<tr>
<td><strong>Less allowances for depreciation</strong></td>
<td>(1,041,983)</td>
<td>(934,679)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,597,659</td>
<td>1,537,553</td>
</tr>
<tr>
<td><strong>GOODWILL AND OTHER INTANGIBLE ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$8,355,560</td>
<td>$7,484,128</td>
</tr>
<tr>
<td></td>
<td>1987</td>
<td>1986</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>LIABILITIES AND SHAREHOLDERS' EQUITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CURRENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and Accrued expenses</td>
<td>1,430,193</td>
<td>1,198,407</td>
</tr>
<tr>
<td>Loans and notes payable</td>
<td>1,685,408</td>
<td>697,743</td>
</tr>
<tr>
<td>Current maturities of long-term debt</td>
<td>213,609</td>
<td>4,628</td>
</tr>
<tr>
<td>Dividends payable in-kind</td>
<td>335,017</td>
<td>-</td>
</tr>
<tr>
<td>Accrued taxes -- including income taxes</td>
<td>454,313</td>
<td>344,141</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
<td>4,118,540</td>
<td>2,244,919</td>
</tr>
<tr>
<td><strong>LONG-TERM DEBT</strong></td>
<td>803,352</td>
<td>907,676</td>
</tr>
<tr>
<td><strong>DEFERRED INCOME TAXES</strong></td>
<td>209,880</td>
<td>239,813</td>
</tr>
<tr>
<td><strong>DUE TO COLUMBIA PICTURES ENTERTAINMENT, INC.</strong></td>
<td>-</td>
<td>576,741</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>5,131,772</td>
<td>3,969,149</td>
</tr>
<tr>
<td><strong>SHAREHOLDERS' EQUITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preferred stock, $1 par value—Authorized: 100,000,000 shares; No shares issued and outstanding</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Common stock, $1 par value—Authorized: 700,000,000 shares; Issued: 415,977,479 shares in 1987</td>
<td>415,977</td>
<td>414,492</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>338,594</td>
<td>299,345</td>
</tr>
<tr>
<td>Reinvested earnings</td>
<td>3,783,625</td>
<td>3,624,046</td>
</tr>
<tr>
<td>Foreign currency translation adjustment</td>
<td>(5,047)</td>
<td>(118,087)</td>
</tr>
<tr>
<td>Less treasury stock, at cost (43,621,336 shares in 1987; 29,481,220 shares in 1986)</td>
<td>(1,309,361)</td>
<td>(704,817)</td>
</tr>
<tr>
<td><strong>TOTAL SHAREHOLDERS' EQUITY</strong></td>
<td>3,223,788</td>
<td>3,514,979</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</strong></td>
<td>$8,355,560</td>
<td>$7,484,128</td>
</tr>
</tbody>
</table>
## Exhibit 1 (continued): Coca-Cola Financial Statements

**THE COCA-COLA COMPANY**

Consolidated Statements of Income (In thousands except per share data)

<table>
<thead>
<tr>
<th>Year Ended December 31</th>
<th>1987</th>
<th>1986</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET OPERATING REVENUES</strong></td>
<td>$7,658,341</td>
<td>$6,976,558</td>
<td>$5,879,160</td>
</tr>
<tr>
<td><strong>Cost of goods</strong></td>
<td>3,633,159</td>
<td>3,453,891</td>
<td>2,909,496</td>
</tr>
<tr>
<td><strong>GROSS PROFIT</strong></td>
<td>4,025,182</td>
<td>3,522,667</td>
<td>2,969,664</td>
</tr>
<tr>
<td><strong>Selling, administrative and general expenses</strong></td>
<td>2,665,022</td>
<td>2,445,602</td>
<td>2,162,991</td>
</tr>
<tr>
<td><strong>Provisions for restructured operations and disinvestment</strong></td>
<td>36,370</td>
<td>180,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td>1,323,790</td>
<td>897,065</td>
<td>806,673</td>
</tr>
<tr>
<td><strong>Interest income</strong></td>
<td>207,164</td>
<td>139,348</td>
<td>144,648</td>
</tr>
<tr>
<td><strong>Interest expense</strong></td>
<td>279,012</td>
<td>196,778</td>
<td>189,808</td>
</tr>
<tr>
<td><strong>Equity income</strong></td>
<td>118,533</td>
<td>155,804</td>
<td>164,385</td>
</tr>
<tr>
<td><strong>Other income-net</strong></td>
<td>34</td>
<td>33,014</td>
<td>66,524</td>
</tr>
<tr>
<td><strong>Gain on sale of stock by former subsidiaries</strong></td>
<td>39,654</td>
<td>375,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES</strong></td>
<td>1,410,163</td>
<td>1,403,453</td>
<td>992,422</td>
</tr>
<tr>
<td><strong>Income taxes</strong></td>
<td>494,027</td>
<td>469,106</td>
<td>314,856</td>
</tr>
<tr>
<td><strong>INCOME FROM CONTINUING OPERATIONS</strong></td>
<td>916,136</td>
<td>934,347</td>
<td>677,566</td>
</tr>
<tr>
<td><strong>Income from discontinued operations (net of applicable income taxes of $7,870)</strong></td>
<td>-</td>
<td>-</td>
<td>9,000</td>
</tr>
<tr>
<td><strong>Gain on disposal of discontinued operations (net of applicable income taxes of $20,252)</strong></td>
<td>-</td>
<td>-</td>
<td>35,733</td>
</tr>
<tr>
<td><strong>NET INCOME</strong></td>
<td>$916,136</td>
<td>$934,347</td>
<td>$722,299</td>
</tr>
</tbody>
</table>
Exhibit 1 (continued): Coca-Cola Financial Statements

The Coca-Cola Company and Subsidiaries
Excerpts from Notes to Consolidated Financial Statements

1. ACCOUNTING POLICIES.

Consolidation: The consolidated financial statements include the accounts of the Company and its subsidiaries except for Coca-Cola Financial Corporation (CCFC). All significant intercompany accounts and transactions are eliminated in consolidation. CCFC, a wholly owned finance subsidiary, is accounted for under the equity method. CCFC's operations for 1987, 1986 and 1985 were not significant to the consolidated financial statements.

3. INVESTMENTS IN AND ADVANCES TO AFFILIATED COMPANIES.

Columbia Picture Entertainment, Inc.: On December 17, 1987, the Company combined substantially all of the assets and liabilities of its Entertainment Business Sector (EBS) with Columbia Pictures Entertainment, Inc. (CPE), formerly known as Tri-Star Pictures, Inc., in a transaction which was accounted for as a step-purchase transaction with EBS treated as the acquiring entity for financial reporting purposes. Also on that date, the Company's Board of Directors approved a one-time dividend of approximately 34.1 million shares of CPE stock. This special dividend, accounted for as a partial spin-off based on the Company's carrying value, was distributed on January 15, 1988 and reduced the Company's ownership interest in CPE to approximately 49 percent. On December 18, 1987, the Company purchased $100 million of CPE adjustable rate non-voting, non-convertible preferred stock. Consistent with its reduced ownership interest, the Company has commenced reporting its investment in CPE under the equity method of accounting. The consolidated financial statements have been restated to reflect EBS under the equity method of accounting for all periods presented. The Company's previous ownership interest in Tri-Star common stock represented 37 percent and 30 percent of the outstanding common shares at December 17, 1987, and December 31, 1986, respectively. The restatement had no effect on shareholders' equity, income from continuing operations, net income or related per share amounts.

Coca-Cola Enterprises Inc: On September 12, 1986, the Company transferred the operating assets of substantially all Company owned bottling companies in the United States to Coca-Cola Enterprises Inc. (CCE), a wholly owned subsidiary. In connection with these transactions, CCE assumed approximately $233 million of debt incurred by the Company in conjunction with certain of the acquisitions. In addition, in September 1986, CCE acquired the Coca-Cola bottling companies controlled by Mr. John T. Lupton and his family, the soft drink bottling operations of BCI Holdings Corporation (the successor to The Beatrice Companies, Inc.) and the remaining interest in The Detroit Bottling Company, Inc. for an aggregate cost of approximately $2.25 billion. These acquisitions were funded with debt, none of which was guaranteed by the Company.

On November 21, 1986, CCE sold 71.4 million shares of its unissued common stock for net proceeds of approximately $1.12 billion. This transaction reduced the Company's ownership interest to 49 percent and resulted in a pretax gain of $375 million. Consistent with its reduced ownership interest, CCE is accounted for under the equity method of accounting for all periods presented.
## Exhibit 2: Coca-Cola Enterprises Financial Statements

### COCA-COLA ENTERPRISES INC.
### CONSOLIDATED BALANCE SHEETS
### (In thousands except share data)

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>January 1, 1988</th>
<th>January 2, 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents, at cost (approximates market)</td>
<td>$11,297</td>
<td>$7,558</td>
</tr>
<tr>
<td>Trade accounts receivable, less allowances of $6,140 in 1987 and $5,919 in 1986</td>
<td>262,508</td>
<td>230,783</td>
</tr>
<tr>
<td>Inventories</td>
<td>117,724</td>
<td>132,082</td>
</tr>
<tr>
<td>Prepaid expenses and other assets</td>
<td>60,462</td>
<td>52,203</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>451,991</td>
<td>422,626</td>
</tr>
<tr>
<td>INVESTMENTS AND OTHER ASSETS</td>
<td>68,949</td>
<td>78,287</td>
</tr>
<tr>
<td>PROPERTY, PLANT AND EQUIPMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>124,831</td>
<td>80,969</td>
</tr>
<tr>
<td>Buildings and improvements</td>
<td>365,607</td>
<td>276,717</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>943,917</td>
<td>795,188</td>
</tr>
<tr>
<td>Containers</td>
<td>63,044</td>
<td>64,201</td>
</tr>
<tr>
<td><strong>Less allowances for depreciation</strong></td>
<td>1,497,399</td>
<td>1,217,075</td>
</tr>
<tr>
<td><strong>GOODWILL AND OTHER INTANGIBLE ASSETS</strong></td>
<td>2,690,950</td>
<td>2,460,569</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$4,250,024</td>
<td>$3,811,019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIABILITIES AND SHAREHOLDERS' EQUITY</th>
<th>January 1, 1988</th>
<th>January 2, 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$376,448</td>
<td>$362,362</td>
</tr>
<tr>
<td>Accounts payable to The Coca-Cola Company</td>
<td>31,475</td>
<td>31,650</td>
</tr>
<tr>
<td>Loans and notes payable</td>
<td>-</td>
<td>79,276</td>
</tr>
<tr>
<td>Current maturities of long-term debt</td>
<td>66,091</td>
<td>23,716</td>
</tr>
<tr>
<td>Accrued income taxes</td>
<td>-</td>
<td>25,583</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>474,014</td>
<td>522,587</td>
</tr>
<tr>
<td>LONG-TERM DEBT</td>
<td>2,091,089</td>
<td>1,779,796</td>
</tr>
<tr>
<td>DEFERRED INCOME TAXES</td>
<td>152,992</td>
<td>61,112</td>
</tr>
<tr>
<td>OTHER LONG-TERM OBLIGATIONS</td>
<td>5,782</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>2,723,877</td>
<td>2,363,495</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHAREHOLDERS' EQUITY</th>
<th>January 1, 1988</th>
<th>January 2, 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock, $1 par value</td>
<td>140,260</td>
<td>140,000</td>
</tr>
<tr>
<td>Issued: 140,260,000 shares in 1987 and 140,000,000 shares in 1986</td>
<td>1,264,965</td>
<td>1,261,381</td>
</tr>
<tr>
<td>Reinvested earning</td>
<td>127,513</td>
<td>46,143</td>
</tr>
<tr>
<td>Less treasury stock, at cost (471,800 shares in 1987)</td>
<td>(6,591)</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL SHAREHOLDERS' EQUITY</strong></td>
<td>1,526,147</td>
<td>1,447,524</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</strong></td>
<td>$4,250,024</td>
<td>$3,811,019</td>
</tr>
</tbody>
</table>
## Exhibit 2 (continued): Coca-Cola Enterprises Financial Statements

**COCA COLA ENTERPRISES INC.**

**CONSOLIDATED STATEMENTS OF INCOME**

(In thousands except per share data)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>1987</th>
<th>1986</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Operating Revenues</td>
<td>$3,329,134</td>
<td>$1,951,008</td>
<td>$1,271,959</td>
</tr>
<tr>
<td>Cost of sales (includes purchases from The Coca-Cola Company of approximately $652,800 in 1987, $392,400 in 1986 and $265,400 in 1985)</td>
<td>1,916,724</td>
<td>1,137,720</td>
<td>755,709</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>1,412,410</td>
<td>813,288</td>
<td>516,250</td>
</tr>
<tr>
<td>Selling, administrative and general expenses</td>
<td>1,075,290</td>
<td>645,218</td>
<td>431,747</td>
</tr>
<tr>
<td>Operating Income</td>
<td>337,120</td>
<td>168,070</td>
<td>84,503</td>
</tr>
<tr>
<td>Interest income</td>
<td>11,566</td>
<td>6,327</td>
<td>4,587</td>
</tr>
<tr>
<td>Interest expense</td>
<td>171,466</td>
<td>82,526</td>
<td>31,945</td>
</tr>
<tr>
<td>Other income (deductions)</td>
<td>(4,445)</td>
<td>(7,101)</td>
<td>6,483</td>
</tr>
<tr>
<td>Income Before Income Taxes</td>
<td>172,775</td>
<td>84,770</td>
<td>63,628</td>
</tr>
<tr>
<td>Income taxes</td>
<td>84,403</td>
<td>56,978</td>
<td>27,721</td>
</tr>
<tr>
<td>Net Income</td>
<td>$88,372</td>
<td>$27,792</td>
<td>$35,907</td>
</tr>
</tbody>
</table>

1. **Ownership and Reorganization:** The Company is the successor to Coca-Cola Bottling Enterprises, Inc., which transferred substantially all of its assets to the Company in September 1986, in a corporate reorganization. In connection with this reorganization, $150 million of cash and accounts receivable were retained by subsidiaries of The Coca-Cola Company. Such Amount is reported as a reduction in reinvested earnings. The Company was a wholly owned subsidiary of The Coca-Cola Company until November 21, 1986, when 51% of the Company’s shares were sold by the Company in a public offering. At January 1, 1988, The Coca-Cola Company owned 49% of the Company.

11. **Related Party Transactions:** The Company and its subsidiaries are licensed bottlers of soft drink products of The Coca-Cola Company. In the ordinary course of business, the Company purchases sweeteners and soft drink syrups and concentrate from and participates in cooperative advertising arrangements with The Coca-Cola Company, resulting in net payments to The Coca-Cola Company of approximately $599 million in 1987, $375 million in 1986 and $258 million in 1985. Other transactions with The Coca-Cola Company were not significant to the operating results of the Company. During 1987, purchases from canning cooperatives in which the Company has investment interests totalled approximately $42 million. Such transactions were not significant in prior years.

Certain administrative expenses incurred by The Coca-Cola Company on behalf of the Company are reflected in the accompanying financial statements in the amount of approximately $1.5 million in 1986 and $2 million in 1985.
Exhibit 3: Board of Directors of Coca-Cola Enterprises in 1987

Donald R. Keough
Chairman of the Board of Directors of Coca-Cola Enterprises Inc., President and Chief Operating Officer of The Coca-Cola Company

John L. Clendenin
Chairman of the Board of Directors, President and Chief Executive Officer of BellSouth Corporation

Lawrence R. Cowart
Executive Vice President and Chief Financial Officer of Coca-Cola Enterprises Inc.

Brian G. Dyson
President and Chief Executive Officer of Coca-Cola Enterprises Inc.

A. Bartlett Giamatti
President of The National League, a professional baseball association

T. Marshall Hahn, Jr.
Chairman of the Board of Directors and Chief Executive Officer of Georgia-Pacific Corporation

Ira C. Herbert
Executive Vice President and Chief Marketing Officer of The Coca-Cola Company

M. Douglas Ivester
Senior Vice President and Chief Financial Officer of The Coca-Cola Company

John E. Jacob
President and Chief Executive Officer of the National Urban League, Inc.

Robert A. Keller
Senior Vice President and General Counsel of The Coca-Cola Company

Wilton D. Looney
Chairman of the Board of Directors and Chief Executive Officer of Genuine Parts Company

Francis A. Tarkenton
Chairman of the Board of Directors and Chief Executive Officer of Tarkenton/KnowledgeWare, Inc., Chief Executive Officer of Tarkenton Insurance Company and a partner in Tarkenton & Hughes

Francis T. Vincent, Jr.
Executive Vice President of The Coca-Cola Company

Joel R. Wells, Jr.
President of SunTrust Banks, Inc., Chairman of the Board of Directors and Chief Executive Officer of Sun Banks, Inc.
Case Questions

1. After divesting 51% of CCE, did Coke lose economic control of CCE? Why do you think Coke divested 51% of CCE in 1986?

2. Under SFAS 94, Coke is not required to consolidate CCE because it does not have a majority interest in CCE. However, suppose that you are interested in viewing Coke and CCE as a single economic entity. Prepare consolidated financial statements of Coke and CCE for fiscal 1987.

3. For the year ended December 31, 1987, compute the financial ratios below using Coke’s financial statements. Do the same using the financial statements prepared assuming Coke had consolidated CCE.

   Debt to equity = \( \frac{\text{total debt (current and long-term)}}{\text{total equity}} \);  
   Times interest earned = \( \frac{\text{earnings before interest and taxes}}{\text{interest expense}} \);  
   Inventory turnover = \( \frac{\text{cost of goods sold}}{\text{average inventory}} \);  
   Receivables turnover = \( \frac{\text{sales}}{\text{average receivables}} \);  
   Gross profit margin = \( \frac{\text{gross profit}}{\text{sales}} \);  
   Return on sales = \( \frac{\text{net income}}{\text{sales}} \);  
   Return on assets = \( \frac{\text{earnings before interest and taxes}}{\text{average total assets}} \)

4. Are Coke’s actual financial statements more or less useful than those prepared assuming Coke had consolidated CCE? Why or why not?

5. Why did Coke record a gain of $375 million in the November 1986 divestiture of CCE? Provide the journal entries that Coke and CCE would have made for this divestiture.

6. In 1987, Coke spun-off Columbia Pictures Entertainment, Inc. Did they give up economic control of Columbia? Would Coke financial statements consolidating Columbia be more or less informative than those presented by Coke?
Analyzing Convertible Debt using Elements Definitions from the IASB’s *Framework*

Joint IAAER-IFRS Foundation
IFRS Teaching Special Interest Session
SAAA International Conference

Katherine Schipper
Duke University
June 2011

General topic: Accounting for financial instruments with elements of equity

- What knowledge does this case presume?
  - Elements definitions from the IASB’s *Framework*, bonds and accounting for bonds, the definition of a call option, the definition of fair value

- What is the purpose of the discussion?
  - Explore the accounting and financial statement analysis for a financial instrument that contains more than one financial statement element
  - The perspective is that of an MBA student, typically more interested in using financial statements as opposed to financial statement preparation/attestation

- What materials are needed?

- How does the discussion proceed?
  - Describe convertible bonds generally and Air France’s convertible bonds specifically
  - Summarize balance sheet, income statement and cash flow effects
  - Summarize effects of changes in economic conditions (borrowing costs)
  - Analyze the required IFRS accounting and (possibly) some tentative decisions in the joint IASB-FASB project on accounting for financial instruments with elements of equity
Starting point: elements definitions (IASB’s *Framework*). The discussion presumes students understand these definitions

- **An asset** is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
- **A liability** is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.
  - From para 61, settlement may occur by transferring cash or other assets, providing services, replacing the obligation with another obligation, or converting the obligation to equity.
- **Equity** is the residual interest in the assets of the entity after deducting all its liabilities.

**Observations:**
- Equity is not separately defined (it depends on the asset and liability definitions).
- The definitions are silent as to measurement.
  - Measurement attributes include amortized cost (which reflects conditions when the item entered the balance sheet) and fair value (which reflects conditions at the measurement date).
- The definitions are silent as to accounting for arrangements that consist of combinations of elements. The example we will consider is **convertible bonds**.

A definition:
A call option gives the holder the right to buy the issuer’s shares at a specified price (the exercise price) for a specified time (the contractual term of the option).

**Example:** a call option has exercise price = $10. If the issuer’s share price > $10, the option is “in the money.”

If the holder exercises the option and buys the share, the holder has an economic gain.

---

**Convertible bonds are financial instruments that combine a loan with a call option**

- Convertible bonds give the holder the right to exchange the bonds for common shares. This right to convert is a conversion feature. It is a **call option** on the issuer’s shares.
  - **Example:** if the holder of a $1000 bond has the right to exchange the bond for 50 shares of stock, the conversion rate is 50 shares per $1000 bond, and the conversion price is $1000/50 or $20 per share.
- An investor in convertible bonds receives two kinds of compensation.
  - **Payments:** Interest payments before conversion or maturity and repayment of principal (if the bonds are not converted before maturity).
  - **Right to convert (a call option):** Right to convert bonds into shares if all conversion conditions are met.
  - Because the conversion feature has value, the interest rate on a convertible bond will in general be lower than the interest rate on an otherwise similar bond that is not convertible.
- In this example, if the price of the issuer’s shares increases to $25 per share, the holder of the bond can convert, receive shares, and have an economic gain = $5 per bond converted.
- Many convertible bonds also have other features.
  - **Callable or redeemable:** The issuer can require holders of its bonds to sell them back to the issuer or convert under certain conditions (for example, any time after a specified calendar date). This feature is valuable to the issuer because it can force conversion if its stock price is rising.
  - **Puttable:** The holders of the bonds can require the issuer to buy them back, under certain conditions (for example, at certain specified calendar dates). This feature is valuable to investors because they can force the issuer to pay the principal amount in cash before maturity.
Convertible bonds—Accounting under US GAAP and under IFRS

- US GAAP ignores the conversion feature and accounts for a convertible bond as if it were not convertible. The balance sheet carrying value is generally the proceeds.
  - *Except that*, as of 2009, there are new rules that apply if the conversion feature can or must be settled in cash. In this case, the accounting is similar to that required by IFRS for all convertible bonds. We do not consider cash settlement features in this discussion.
- IFRS (IAS 32) separately accounts for the conversion feature as equity and the loan as a bond issued at a discount
  - Identify the borrowing rate for an otherwise similar bond that is not convertible (for example, 6%)
  - Discount the bond’s contractual cash flows at that borrowing rate (in this example, 6%)
  - The difference between the bond’s par value and the value of cash flows discounted at the borrowing rate for a nonconvertible bond is allocated to the conversion feature and included in shareholders equity
  - **Example journal entry:**
    - Dr Cash (bond proceeds)
    - Cr Bond payable (present value of promised interest and principal, discounted at 6%)
    - Cr Shareholders equity (amount is shown net of tax)
  - The subsequent accounting amortizes the difference between the proceeds and the present value of the promised cash flows into interest expense, treating it like any other bond discount

Convertible bonds as described by Air France

3.10.4 Convertible bonds

Convertible bonds are financial instruments comprised of two components: a bond component recorded as debt and a stock component recorded in equity. The bond component is equal to the discounted value of all coupons due for the bond at the rate of a simple bond that would have been issued at the same time as the convertible bond. The value of the stock component recorded in the Group’s equity is calculated by the difference between such value and the bond’s nominal value at issue. The difference between the financial expense recorded and the amounts effectively paid out is added, at each closing, to the amount of the debt component so that, at maturity, the amount to be repaid if there is no conversion equals the redemption price.

This note describes Air France’s accounting for its convertible bonds in the financial report for the year ending March 31, 2011. Numbers in blue refer to footnote numbers in the financial report.
Convertible bonds as described by Air France

**Note 30  Financial debt**

<table>
<thead>
<tr>
<th>Year ended March 31,</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in € millions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non current financial debt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetual subordinated loan stock in Yen</td>
<td>241</td>
<td>232</td>
</tr>
<tr>
<td>Perpetual subordinated loan stock in Swiss francs</td>
<td>325</td>
<td>296</td>
</tr>
<tr>
<td>OCEANE (convertible bonds)</td>
<td>964</td>
<td>964</td>
</tr>
<tr>
<td>Bonds</td>
<td>1,450</td>
<td>1,450</td>
</tr>
<tr>
<td>Capital lease obligations (non current portion)</td>
<td>3,059</td>
<td>3,421</td>
</tr>
<tr>
<td>Other debt (non current portion)</td>
<td>2,921</td>
<td>2,859</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,680</td>
<td>9,222</td>
</tr>
</tbody>
</table>

This note displays the balance sheet carrying values of Air France’s convertible bonds (OCEANE) as a component of Financial debt. These bonds are included with other long term (noncurrent) debt on the balance sheet. Financial statement users cannot discern the components of noncurrent debt (for example, convertible bonds) from the balance sheet alone.

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**30.2.1  OCEANE issued in 2005**

On April 2005, the company Air France, a subsidiary of the Air France-KLM group, issued convertible bonds maturing in 15 years. The conversion option allows for conversion and/or exchange at any time into new or existing Air France-KLM shares (OCEANE). 21,951,219 bonds were issued for a total amount of €450 million. Each bond has a nominal value of €20.50. As of March 31, 2011, the conversion ratio is 1.03 Air France-KLM shares for one bond.

The maturity date for this convertible bond is April 1, 2020. Bond holders may ask for reimbursement as of April 1, 2012 and April 1, 2016. Air France holds a call option triggering early cash reimbursement which can be exercised starting April 1, 2010 under certain conditions prompting OCEANE holders to convert into Air France-KLM shares. The annual coupon is 2.75% payable in arrears at the end of each period ended April 1.

**30.3.1  Bonds issued in 2006 and 2007**

On September 2006 and April 2007, the company Air France, a subsidiary of the Air France-KLM group, issued bonds for a total amount of €750 million, maturing on January 22, 2014 and bearing an annual interest rate of 4.75%.

The stated maturity = 15 years, but the bonds can be called by the issuer starting 2010 and the bonds can be put (required repurchase) by the holders in 2012 and 2016. These features are not accounted for separately.

Proceeds = €450 million for 21,951 million bonds, €450/21,951 = 20.50 per bond

The conversion rate as of March 2011 is 1.03 shares per bond. If all 21,951 million bonds were converted on that date, Air France would issue 21,951 x 1.03 million shares in exchange for bonds.

The coupon rate = 2.75%, which is 2 percentage points less than one measure of Air France’s borrowing rate on nonconvertible debt (4.75% in 2006).

Economically, the difference in borrowing costs is one indicator of the value of the conversion feature (call option) at the time the bonds were issued.
Convertible bonds as described by Air France

30.2.2 OCEANE issued in 2009
As of June 26, 2009, Air France-KLM issued a bond with an option of conversion and/or exchange for new or existing Air France-KLM shares (OCEANE) with a maturity date fixed at April 1, 2015. 56,016,649 bonds were issued for a total amount of €661 million. Each bond has a nominal value of €11.80. The annual coupon amounts to 4.97%.

The conversion period of these bonds runs from August 6, 2009 to the seventh working day preceding the normal or early reimbursement date.

Air France-KLM can impose the cash reimbursement of these bonds by exercising a call as of April 1, 2013 and under certain conditions encouraging OCEANE owners to convert their bonds into Air France-KLM shares.

Upon issue of this convertible debt, Air France-KLM recorded a debt of €556 million, corresponding to the present value of future payments for interest discounted at the rate of a similar bond without a conversion option. As of March 31, 2011, the debt value amounts to €560 million.

The option value was evaluated by deducting this debt value from the total nominal amount (i.e. €661 million) and was recorded in equity.

30.3.2 Bonds issued in 2009
As of October 27, 2009, Air France-KLM issued bonds for a total amount of €700 million, maturing on October 27, 2016 and bearing an annual interest of 6.75%.

The stated maturity = 2015 but the bonds can be called by the issuer starting 2013.

The proceeds = 661 million for approximately 56,017 million bonds, or approximately 661/56.017 = 11.80 per bond.

The conversion rate is not given in this note.

The coupon rate = 4.97%, which is 1.78 percentage points less than one measure of Air France’s borrowing rate on nonconvertible debt (6.75% in 2009).

Economically, the difference in borrowing costs is one indicator of the value of the conversion feature (call option) at the time the bonds were issued.

Balance sheet effects of issuing convertible bonds

Air France issued 661 million (proceeds) of convertible bonds in 2009. It recorded debt of 556 million and the rest in equity, net of tax.

To record this issuance:

<table>
<thead>
<tr>
<th></th>
<th>Dr Cash</th>
<th>Cr Bonds payable</th>
<th>Cr Stockholders equity</th>
<th>Cr Deferred tax liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>661</td>
<td>556</td>
<td>69 (net)</td>
<td>36</td>
</tr>
</tbody>
</table>

12.2 Deferred tax recorded directly in equity

<table>
<thead>
<tr>
<th>Year ended March 31,</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In millions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flow hedge</td>
<td>(16)</td>
<td>(519)</td>
</tr>
<tr>
<td>OCEANE</td>
<td>-</td>
<td>(56)</td>
</tr>
<tr>
<td>Total</td>
<td>(16)</td>
<td>(554)</td>
</tr>
</tbody>
</table>
Cash flow and income effects of issuing convertible bonds

- Air France issued 661 million (proceeds) of convertible bonds in 2009. It recorded debt of 556 million and the rest in equity, net of tax.
  - The 556 million is a financing source of cash on the statement of cash flows.
- Air France will pay interest in cash based on the coupon rate of the debt (4.97%) and the principal amount (661 million)
- Air France will calculate interest expense based on the rate associated with borrowing without a conversion feature (closer to 6.75%) and the balance sheet carrying value (initially 556 million)
- Therefore, cash paid as interest < amounts recorded as interest expense, with the difference increasing the bond carrying value. This accounting is similar to the accounting for bonds issued at a discount
- In every accounting period, up to maturity or conversion, cash outflow < interest expense

Example at the first payment, assuming semi-annual coupons:

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest expense</td>
<td>Interest payable</td>
<td>18.8 (= 556 x 0.0675/2)</td>
</tr>
<tr>
<td></td>
<td>Bonds payable</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Economic effects of changes in borrowing rates

- **Scenario 1**: The market borrowing rate declines relative to the rate at which a firm originally issued debt
  - The cash flows for principal and interest payments associated with the bond are fixed and specified, by contract. However, investors now demand a lower return. Therefore, the fair value of the bond increases
  - The same cash flows are discounted at a lower rate.
- **Scenario 2**: The market borrowing rate increases relative to the rate at which the firm originally issued debt
  - The cash flows for principal and interest payments associated with the bond are fixed and specified, by contract. However, investors now demand a higher return. Therefore, the fair value of the bond decreases.
  - The same cash flows are discounted at a higher rate.
- When the market borrowing rate (the effective borrowing rate) changes, and the contractual cash flows of the bond are fixed, the fair value of the bond changes.
Changes in fair value of bonds—issuer perspective

- Fair value of a bond might be measured as the exchange value of the bond in the marketplace (if the bond is traded)
  - The fair value of the bond reflects the contractual cash flows, discounted at the current market borrowing rate
  - For our purposes, fair value = the amount that would be paid to redeem the debt in a arms-length transaction in the marketplace
  - Both US GAAP and IFRS require disclosure of fair values of the firm’s debt in the notes.
  - Both US GAAP and IFRS permit fair value measurement of the firm’s debt on its balance sheet (the fair value option)
    - The issuer of a bond is permitted, but not required, to use fair value as the measurement attribute of the bond it has issued.
    - If a firm chooses fair value to measure a bond that it has issued, every accounting period the firm remeasures the bond at fair value, with changes in fair value included in earnings
      - Fair value declines => liability decreases and income increases
      - Fair value increases => liability increases and income decreases
    - However, the fair value option does not appear to be available for convertible debt.

Changes in fair value of bonds—issuer perspective

OCEANE issued in April 2005: The market value of €475 million, was determined based on the bond's market price as of March 31, 2011. This market value includes the fair value of the debt component (amount of €402 million in the financial statements as of March 31, 2011) as well as the fair value of the conversion option recorded in equity for €48 million.

OCEANE issued in June 2009: The market value of €866 million, was determined based on the bond's market price as of March 31, 2011. This market value includes the fair value of the debt component (amount of €583 million in the financial statements as of March 31, 2011) as well as the fair value of the conversion option recorded in equity for €76 million.

- When Air France issued OCEANE convertible bonds in 2009, proceeds = 661 million. Fair value as at March 31, 2011 = 866 million, based on market prices
- Air France's borrowing costs for these bonds have decreased since it issued the bonds
- Air France cannot directly repurchase the bonds, because they are convertible (investors can exchange them for shares). The call provisions mean that Air France can tell bondholders they must convert or it will repurchase the bonds.
### Potential discussion questions for MBA students

- Applying the definition of a liability and the definition of equity to convertible bonds
  - The accounting required by IFRS separates the bond into a debt component and an equity component and does not separately account for features that could cause the bond to be settled before maturity. Is the accounting required by IFRS consistent with the elements definitions?
    - Comments: The issuer’s ability to call the bonds before maturity is an asset whose value is determined by economic conditions and the terms of the bond. If the issuer’s price rises, it has the ability to call the bonds and force conversion. The holder’s ability to force the issuer to repurchase the bonds creates an obligation for the issuer. IFRS accounting does not separately account for these features.
- Evaluate the following statements: the conversion feature (call option) is a liability whose value is indexed to (depends on) the issuer’s share price (including both level and volatility) and the time to maturity of the convertible bond. Settling the obligation in the issuer’s own shares does not make the conversion feature equity.
  - Comments: This discussion question addresses one of the key features of a liability, namely, the way it is settled. The IASB’s Framework describes conversion to equity as one way to settle a liability. Such a conversion does not require cash or other assets (so conversion cannot make the issuer insolvent). If solvency is the criterion for a liability, a call option can never be a liability. Conversion can dilute the ownership interests of existing equity (the amount of the dilution depends on the amount by which the current share price exceeds the conversion price). Conversion requires that the issuer have an adequate number of authorized shares to settle. Tentative decisions of the IASB (and FASB) would treat the conversion feature as equity under most conditions.
- The conversion feature and the debt component cannot be separately settled. If the conversion feature is not exercised, the issuer repays the bond’s principal amount at maturity in cash (the arrangement settles like any other debt instrument). If the conversion feature is exercised, the issuer delivers the required number of its shares (the arrangement is settled by issuing shares).
  - Evaluate the following statement: because the debt component cannot be settled separately from the conversion feature, the entire convertible bond should be accounted for as a single item.
  - If the convertible bond is to be accounted for as a single item (not separated) what do you think should be the measurement attribute? Consider both amortized cost and fair value.
  - Comments: Tentative decisions of the IASB and FASB would require that the debt and equity components be accounted for separately and that the option to measure the arrangement as a whole at fair value would not be permitted (fair value option under IAS 39).
  - Analysts valuing the issuer’s equity sometimes take one of these two approaches:
    - Classify the entire convertible bond as equity, including the effects of issuing additional shares, or
    - Classify the entire convertible bond as debt and measure at fair value
    - The decision generally depends in part on whether the issuer’s current share price is at or above the conversion price of the convertible bonds
    - A third alternative: follow the IFRS accounting which separately accounts for the loan component and the call option
The role of the Framework in IFRS interpretation

Bob Garnett
Chairman,
IFRS Interpretations Committee and
former member,
IASB
Role of the Framework in IFRS Interpretations

Robert Garnett
Chairman, IFRS Interpretations Committee and former IASB Member

Constitution
• Interpret the application of IFRSs and provide timely guidance on financial reporting issues not specifically addressed in IFRSs, in the context of the IASB’s Framework
• Have regard to the IASB’s objective of working actively with national standard-setters to bring about convergence of national accounting standards and IFRSs to high quality solutions
• Publish after clearance by the IASB draft Interpretations for public comment and consider comments made within a reasonable period before finalising an Interpretation
• Report to the IASB and obtain the approval of its members for final Interpretations

Objectives
• Review newly identified financial reporting issues not specifically addressed in IFRSs or issues where unsatisfactory or conflicting interpretations have developed
• Consider whether the principles established in relevant IFRSs are sufficiently clear to eliminate diverse reporting methods
• Provide interpretative guidance applying a principle-based approach founded on the Conceptual Framework for Financial Reporting

Deliverables
• An explanation of the principles and requirements of IFRS applicable to a particular transaction or economic event such that:
  – preparers of financial statements are able to exercise their judgement to the facts and uncertainties in a reasonable and consistent manner
  – users of financial statements are able to interpret and comprehend the accounting consequences of similar transactions and economic events

Constraints
• Overly prescriptive (rules-based) standards
• Exemptions to principles used by analogy
• Scope exclusions
• Inadequacies and conflicts in IFRS
• Popularity of alternative reporting methods
• Timely guidance

Principles-based interpretations
• Constitution
• Objectives
• Constraints
• Key framework references
• How it works
• Summary of selected IFRICs
Recognition of the elements of financial statements (4.38)

• An item that meets the definition of an element should be recognised if:
  a) it is probable that any future economic benefit associated with the item will flow to or from the entity; and
  b) the item has a cost or value that can be measured with reliability

Probability of future economic benefit (4.40)

• The concept of probability is used in the recognition criteria to refer to the degree of uncertainty that the future economic benefits associated with the item will flow to or from the entity.
• The concept is in keeping with the uncertainty that characterises the environment in which an entity operates.
• Assessments of the degree of uncertainty attaching to the flow of future economic benefits are made on the basis of the evidence available when the financial statements are prepared.

Reliability of measurement (4.41)

• An item should possess a cost or value that can be measured with reliability.
• Use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability.
• When a reasonable estimate cannot be made the item is not recognised.

Recognition of income (4.47)

• Recognition of income occurs simultaneously with the recognition of increases in assets or decreases in liabilities.
• The procedures adopted are generally directed at restricting recognition to those items that can be measured reliably and have a sufficient degree of certainty.

Recognition of expenses (4.49)

• Recognition of expenses occurs simultaneously with the recognition of an increase in liabilities or a decrease in assets.
• When economic benefits are expected to arise over several accounting periods expenses are recognised on the basis of systematic and rational allocation procedures.
• An expense is recognised immediately when expenditure produces no future economic benefits or when future economic benefits do not qualify for recognition as an asset.

IFRS Interpretations Committee

• Think before you ask.
• Because you may not like the answer.
• If IFRS are clear, you should use judgement.
• But sometimes IFRS are not clear.
  – Conflict with other standards.
  – Outside scope of current IFRS.
  – Implementation guidance conflicts with principles.
  – Unintended consequence.
How the process works in practice

- Understand the real issue behind the question
- Identify relevant IFRS principles & requirements
- Consider the alternative accounting treatments
  - (If the issue meets the agenda criteria)
- Reach consensus on the principles
- Explain the application
- Consult and redeliberate

Example: IFRIC 13

- Frequent flyer programs
- Multiple-element sales or future costs
- Flown vs paid air-miles
- IAS18 deficiencies
- Timeline of earnings process
- Allocate revenue based on fair value
- Reflect probability of forfeiture of air-miles

Example: IFRIC 15

- Off-plan sales of real estate
- Construction service or completed unit
- IAS11 or IAS18 (illustrative example)
- Service criteria
- Supply of goods discrete or continuous
- Consider legal contract and environment

Example: IFRIC 17

- Spin-offs and dividends in specie
- Transactions with equity participants
- Carrying amount of assets to be distributed
- No applicable IFRS
- Qualitative characteristics
- Principle of fair value at initial recognition
- Liability remeasurement in income or equity

Example: IFRIC 18

- Utility company receives sub-station from either a single customer or real-estate developer, but not part of price-regulated cost base
- Either zero asset or deferred credit accounting to match depreciation under IAS16
- Asset definition and future service obligation
- Initial measurement at fair value

Example: IFRIC (20)

- Stripping costs in production phase difficult to identify as either inventory or development
- Life-of-mine stripping ratio used to allocate
- IAS16 scope exemption on extraction of ore
- Asset recognition principle requires both future benefit and estimate of costs incurred
- Identify what the benefit is and what incremental costs have been incurred
- Not yet finalised!
Questions or comments?

Expressions of individual views by members of the IASB and its staff are encouraged. The views expressed in this presentation are those of the presenter. Official positions of the IASB on accounting matters are determined only after extensive due process and deliberation.
<table>
<thead>
<tr>
<th>IFRIC Interpretation</th>
<th>Consensus</th>
<th>Nature of divergence</th>
<th>IFRS reference</th>
<th>Framework issues</th>
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<tbody>
<tr>
<td>IFRIC 1 Changes in Existing Decommissioning, Restoration and Similar Liabilities</td>
<td>Changes in the measurement of an existing decommissioning, restoration and similar liability that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits required to settle the obligation, or a change in the discount rate, shall be added to, or deducted from, the cost of the related asset in the current period.</td>
<td>Measurement of liability Allocation of change (asset vs P/L)</td>
<td>IAS16 7 IAS37</td>
<td>Liability measurement Expense recognition</td>
</tr>
<tr>
<td>IFRIC 2 Members’ Shares in Co-operative Entities and Similar Instruments</td>
<td>Members’ shares that would be classified as equity if the members did not have a right to request redemption are equity if the entity has an unconditional right to refuse redemption of the members’ shares.</td>
<td>Exception to financial liability rule</td>
<td>IAS32</td>
<td>N/A</td>
</tr>
<tr>
<td>IFRIC 4 Determining whether an Arrangement contains a Lease</td>
<td>Determining whether an arrangement is, or contains, a lease shall be based on the substance of the arrangement and requires an assessment of whether fulfilment of the arrangement is dependent on the use of a specific asset or assets (the asset); and the arrangement conveys a right to use the asset.</td>
<td>Judgement required</td>
<td>IAS17</td>
<td>Asset recognition</td>
</tr>
<tr>
<td>IFRIC 5 Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds</td>
<td>The contributor shall recognise its obligation to pay decommissioning costs as a liability and recognise its interest in the fund separately unless the contributor is not liable to pay decommissioning costs even if the fund fails to pay.</td>
<td>Offsetting</td>
<td>IAS37</td>
<td>Asset/liability recognition</td>
</tr>
<tr>
<td>IFRIC 6 Liabilities arising from Participating in a Specific Market—Waste Electrical and Electronic Equipment</td>
<td>Participation in the market during the measurement period is the obligating event in accordance with paragraph 14(a) of IAS 37. As a consequence, a liability for waste management costs for historical household equipment does not arise as the products are manufactured or sold. Because the obligation for historical household equipment is linked to participation in the market during the measurement period, rather than to production or sale of the items to be disposed of, there is no obligation unless and until a market share exists during the measurement period. The timing of the obligating event may also be independent of the particular period in which the activities to perform the waste management are undertaken and the related costs incurred.</td>
<td>Present obligation</td>
<td>IAS37</td>
<td>Liability recognition</td>
</tr>
<tr>
<td>IFRIC 7</td>
<td>Applying the Restatement Approach under IAS 29 Financial Reporting in Hyperinflationary Economies</td>
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<td><strong>In the reporting period in which an entity identifies the existence of hyperinflation in the economy of its functional currency, not having been hyperinflationary in the prior period, the entity shall apply the requirements of IAS 29 as if the economy had always been hyperinflationary. Therefore, in relation to non-monetary items measured at historical cost, the entity's opening statement of financial position at the beginning of the earliest period presented in the financial statements shall be restated to reflect the effect of inflation from the date the assets were acquired and the liabilities were incurred or assumed until the end of the reporting period. For non-monetary items carried in the opening statement of financial position at amounts current at dates other than those of acquisition or incurrence, that restatement shall reflect instead the effect of inflation from the dates those carrying amounts were determined until the end of the reporting period.</strong></td>
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<td><strong>Application of measurement rules</strong></td>
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<td><strong>IAS29</strong></td>
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<td><strong>N/A</strong></td>
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<th>IFRIC 9</th>
<th>Reassessment of Embedded Derivatives</th>
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<tr>
<td><strong>An entity shall assess whether an embedded derivative is required to be separated from the host contract and accounted for as a derivative when the entity first becomes a party to the contract. Subsequent reassessment is prohibited unless there is either (a) a change in the terms of the contract that significantly modifies the cash flows that otherwise would be required under the contract or (b) a reclassification of a financial asset out of the fair value through profit or loss category, in which cases an assessment is required.</strong></td>
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<td><strong>De &amp; Re rules</strong></td>
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<td><strong>IAS39</strong></td>
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<td><strong>N/A</strong></td>
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<th>IFRIC 10</th>
<th>Interim Financial Reporting and Impairment</th>
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<td><strong>An entity shall not reverse an impairment loss recognised in a previous interim period in respect of goodwill.</strong></td>
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<td><strong>Conflicting requirements</strong></td>
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<td><strong>IAS34 &amp; IAS39</strong></td>
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<td><strong>N/A</strong></td>
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<td>IFRIC 12</td>
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<td>IFRIC 16</td>
<td>Hedges of a Net Investment in a Foreign Operation</td>
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<td>IFRIC 17</td>
<td>Distributions of Non-cash Assets to Owners</td>
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<td>IFRIC 18</td>
<td>Transfers of Assets from Customers</td>
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<td>IFRIC 19</td>
<td>Extinguishing Financial Liabilities with Equity Instruments</td>
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<td></td>
<td>The issue of an entity’s equity instruments to a creditor to extinguish all or part of a financial liability is consideration paid in accordance with <a href="https://towardsdatascience.com/">paragraph 3.3.3 of IFRS 9</a>, and an entity shall remove a financial liability (or part of a financial liability) from its statement of financial position when, and only when, it is extinguished in accordance with <a href="https://www.ifrs.org">paragraph 3.3.1 of IFRS 9</a></td>
</tr>
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| IFRIC 20 | Stripping costs in the production phase of a surface mine |                         | IAS16 | Asset recognition |
Joint IAAER-IFRS Foundation

IFRS Teaching
Special Interest Session
27 June 2011
Fancourt, George

Round-table Q&A

Mary Barth
Professor of Accounting,
Stanford University and
Academic Advisor and former member,
IASB

Bob Garnett
Chairman,
IFRS Interpretations Committee and
former member,
IASB

Katherine Schipper
Professor of Accounting,
Duke University and
former member,
FASB

Donna Street
Professor of Accounting,
University of Dayton and
Past President and Director of Research and Educational Activities,
IAAER

Ann Tarca
Professor of Accounting,
University of Western Australia and
Academic Fellow, Education Initiative,
IFRS Foundation

Michael Wells
Director of IFRS Education Initiative,
IFRS Foundation and
Member of Board of Advisors,
IAAER
Concluding comments

Donna Street
Professor of Accounting,
University of Dayton and
Past President and Director of Research and Educational Activities,
IAAER