



# I owe, I owe



## IAS 23 Borrowing Costs



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*Assistant Professor*



# Learning Objectives



1. Explain the nature, economic substance, and advantages of borrowing costs (IAS 23).
2. Describe the accounting problems associated with self-constructed assets.
3. Describe the accounting problems associated with interest capitalization.
4. List the disclosure requirements for borrowing costs.



# Introducing IAS 23

The objective of IAS 23 is to prescribe the appropriate accounting treatment for borrowing costs.

CORE Principle:

Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset form part of the cost of that asset. Other borrowing costs are recognized as an expense.

# Scope and Definitions

**BORROWING COSTS** - are interests and other costs incurred by an entity in connection with the borrowing of funds.

**INCLUDES:**

1. Interest on bank overdrafts and short-term and long-term borrowings
2. Amortization of discounts or premiums relating to borrowings
3. Amortization of ancillary costs incurred in connection with the arrangement of borrowings
4. Finance charges in respect of finance leases recognized in accordance with IAS 17 Leases
5. Exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs.



# Scope and Definitions

An entity is **not required** to apply IAS 23 to borrowing costs directly attributable to the acquisition, construction or production of:

1. A qualifying asset\* measured at fair value, like biological assets.
2. Inventories that are manufactured, or otherwise produced, in large quantities on a repetitive basis.

***\*QUALIFYING ASSET (an asset that necessarily takes a substantial period of time to get ready for its intended use)***

# Scope and Definitions

## **Examples of qualifying assets:**

- ☐ inventories that require a substantial period of time to bring them to salable condition
- ☐ manufacturing plants
- ☐ power generation facilities
- ☐ investment properties

## **Do NOT fall under qualifying assets:**

- other investments and those inventories that are routinely manufactured or otherwise produced in large quantities on a repetitive basis over a short period of time
- assets that are ready for their intended use or sale when acquired

# Recognition and Measurement

## OLD Treatment:

- Generally EXPENSED in the period incurred (benchmark)
- As an alternative, CAPITALIZED



## NEW Treatment:

- Required to CAPITALIZE

# Recognition and Measurement

## Are capitalized borrowing costs added to cost of the asset?

Added only when it is PROBABLE that they

- a. Will result in future economic benefits to the entity
- b. Costs can be measured reliably

Let's GO capitalize!

- Specific (actual borrowing costs less investment income on the temporary investment of those borrowings)
- General (applying capitalization rate to the expenditures on that asset)

***CARDINAL RULE: the amount of borrowing costs capitalized during the period shall NOT exceed the amount of borrowing costs incurred during that period.***

# Recognition and Measurement

## When to **START** capitalization?

- a. Expenditures for the assets are being incurred*
- b. Borrowing costs are being incurred*
- c. Activities that are necessary to prepare the asset for its intended use or sale are in progress*

***\*Letter C encompasses more than the physical construction of the asset.***

***INCLUDES technical and admin work prior to the commencement of physical construction (obtaining permits to construct).***

***EXCLUDES the holding of an asset when no production or development that changes the asset's condition is taking place.***

# Recognition and Measurement

## When to SUSPEND capitalization?

- ❑ During extended periods in which active development is interrupted (costs of holding partially completed assets)!
- ❑ ***BUT not suspended during period when substantial technical and administrative work is being carried out!***
- ❑ ***Not suspended when a temporary delay is a NECESSARY part of the process of getting an asset ready for its intended use or sale!***

# Recognition and Measurement

## When to CEASE capitalization?

- ❑ When substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are COMPLETE (even if routine administrative work might still continue)!
- ❑ When construction of qualifying asset is COMPLETED IN PARTS and each part is capable of being used while construction continues on other parts, capitalization shall cease when substantially all the activities necessary to prepare that part for its intended use or sale are completed!

# Recognition and Measurement

## PRO-FORMA ENTRIES

- |                                |     |       |     |
|--------------------------------|-----|-------|-----|
| 1. To obtain a fund            |     |       |     |
| Cash                           |     | xxx   |     |
| Loan payable                   |     |       | xxx |
| 2. To capitalize interest      |     |       |     |
| Construction in progress       | xxx |       |     |
| Cash                           |     |       | xxx |
| 3. To pay a contractor         |     |       |     |
| Construction in progress       | xxx |       |     |
| Cash                           |     |       | xxx |
| 4. To invest temporarily       |     |       |     |
| Trading securities             | xxx |       |     |
| Cash                           |     |       | xxx |
| 5. To record investment income |     |       |     |
| Cash                           |     | x + y |     |
| Trading Securities*            |     | x     |     |
| Construction in progress**     |     |       | y   |

**\* Usually three months or less**

**\*\*Interest income from temporary investment**



# Interest Capitalization

**Interest Capitalization Illustration:** Blue Corporation borrowed \$200,000 at 12% interest from State Bank on Jan. 1, 2011, for specific purposes of constructing special-purpose equipment to be used in its operations. Construction on the equipment began on Jan. 1, 2011, and the following expenditures were made prior to the project's completion on Dec. 31, 2011:

## **Actual Expenditures:**

|                    |                         |
|--------------------|-------------------------|
| January 1, 2011    | \$100,000               |
| April 30, 2011     | 150,000                 |
| November 1, 2011   | 300,000                 |
| December 31, 2011  | 100,000                 |
| Total expenditures | <u><u>\$650,000</u></u> |

Other general debt existing on Jan. 1, 2011:

\$500,000, 14%, 10-year  
bonds payable

\$300,000, 10%, 5-year  
note payable

# Interest Capitalization

**Step 1** - Determine which assets qualify for capitalization of interest.

Special purpose equipment qualifies because it requires a period of time to get ready and it will be used in the company's operations.

**Step 2** - Determine the capitalization period.

The capitalization period is from Jan. 1, 2011 through Dec. 31, 2011, because expenditures are being made and interest costs are being incurred during this period while construction is taking place.

# Interest Capitalization

**Step 3** - Compute weighted-average accumulated expenditures.

| Date    | Actual<br>Expenditures | Capitalization<br>Period | Weighted<br>Average         |
|---------|------------------------|--------------------------|-----------------------------|
|         |                        |                          | Accumulated<br>Expenditures |
| Jan. 1  | \$ 100,000             | 12/12                    | \$ 100,000                  |
| Apr. 30 | 150,000                | 8/12                     | 100,000                     |
| Nov. 1  | 300,000                | 2/12                     | 50,000                      |
| Dec. 31 | 100,000                | 0/12                     | -                           |
|         | <u>\$ 650,000</u>      |                          | <u>\$ 250,000</u>           |

A company weights the construction expenditures by the amount of time (fraction of a year or accounting period) that it can incur interest cost on the expenditure.

# Interest Capitalization

**Step 4 - Compute the Actual and Avoidable Interest.**

## Selecting Appropriate Interest Rate:

1. For the portion of weighted-average accumulated expenditures that is less than or equal to any amounts borrowed specifically to finance construction of the assets, **use the interest rate incurred on the specific borrowings.**
2. For the portion of weighted-average accumulated expenditures that is greater than any debt incurred specifically to finance construction of the assets, **use a weighted average of interest rates incurred on all other outstanding debt during the period.**

# Interest Capitalization

**Step 4** - Compute the Actual and Avoidable Interest.

## Actual Interest

|               | Debt                | Interest Rate | Actual Interest   | Weighted-average interest rate on general debt                                 |
|---------------|---------------------|---------------|-------------------|--|
| Specific Debt | \$ 200,000          | 12%           | \$ 24,000         |  |
| General Debt  | 500,000             | 14%           | 70,000            | $\left. \begin{array}{l} \$100,000 \\ \$800,000 \end{array} \right\} = 12.5\%$ |
|               | 300,000             | 10%           | 30,000            |  |
|               | <u>\$ 1,000,000</u> |               | <u>\$ 124,000</u> |  |

## Avoidable Interest

| Accumulated Expenditures | Interest Rate | Avoidable Interest |
|--------------------------|---------------|--------------------|
| \$ 200,000               | 12%           | \$ 24,000          |
| 50,000                   | 12.5%         | 6,250              |
| <u>\$ 250,000</u>        |               | <u>\$ 30,250</u>   |

# Interest Capitalization

**Step 5** – Capitalize the lesser of Avoidable interest or Actual interest.

|                           |                  |
|---------------------------|------------------|
| <b>Avoidable interest</b> | <b>\$ 30,250</b> |
| <b>Actual interest</b>    | <b>124,000</b>   |

**Journal entry to Capitalize Interest:**

|                  |        |        |
|------------------|--------|--------|
| Equipment        | 30,250 |        |
| Interest expense |        | 30,250 |

# Interest Capitalization

**Comprehensive Illustration:** On November 1, 2010, Shalla Company contracted Pfeifer Construction Co. to construct a building for \$1,400,000 on land costing \$100,000 (purchased from the contractor and included in the first payment). Shalla made the following payments to the construction company during 2011.

| <u>January 1</u> | <u>March 1</u> | <u>May 1</u> | <u>December 31</u> | <u>Total</u> |
|------------------|----------------|--------------|--------------------|--------------|
| \$210,000        | \$300,000      | \$540,000    | \$450,000          | \$1,500,000  |

# Interest Capitalization

Pfeifer Construction completed the building, ready for occupancy, on December 31, 2011. Shalla had the following debt outstanding at December 31, 2011.

## Specific Construction Debt

- |  |           |
|--|-----------|
| 1. 15%, 3-year note to finance purchase of land and construction of the building, dated December 31, 2010, with interest payable annually on December 31 | \$750,000 |
|--|-----------|

## Other Debt

- |   |           |
|---|-----------|
| 2. 10%, 5-year note payable, dated December 31, 2007, with interest payable annually on December 31 | \$550,000 |
| 3. 12%, 10-year bonds issued December 31, 2006, with interest payable annually on December 31       | \$600,000 |

Compute weighted-average accumulated expenditures for 2011.



# Interest Capitalization

Compute weighted-average accumulated expenditures for 2011.

| Expenditures |                    | × | Current-Year Capitalization | = | Weighted-Average Accumulated Expenditures |
|--------------|--------------------|---|-----------------------------|---|---|
| Date         | Amount             |   | Period                      |   |   |
| January 1    | \$ 210,000         |   |                             |   |   |
| March 1      | 300,000            |   |                             |   |   |
| May 1        | 540,000            |   |                             |   |   |
| December 31  | 450,000            |   |                             |   |   |
|              | <u>\$1,500,000</u> |   |                             |   |   |

# Interest Capitalization

Compute the avoidable interest.

| <u>Weighted-Average<br/>Accumulated Expenditures</u> | × | <u>Interest Rate</u> | = | <u>Avoidable Interest</u> |
|--|---|----------------------|---|---------------------------|
| \$750,000  |   |                      |   |                           |
| <u>70,000<sup>a</sup></u>                            |   |                      |   |                           |
| <u>\$820,000</u>                                     |   |                      |   |                           |

<sup>a</sup>The amount by which the weighted-average accumulated expenditures exceeds the specific construction loan.

<sup>b</sup>Weighted-average interest rate computation:

|                    | <u>Principal</u>   | <u>Interest</u>  |
|--------------------|--------------------|------------------|
| 10%, 5-year note   | \$ 550,000         | \$ 55,000        |
| 12%, 10-year bonds | <u>600,000</u>     | <u>72,000</u>    |
|                    | <u>\$1,150,000</u> | <u>\$127,000</u> |

Weighted-average interest rate =

|  |   |  |
|--|---|--|
|  | = |  |
|  |   |  |

# Interest Capitalization

Compute the actual interest cost, which represents the maximum amount of interest that it may capitalize during 2011,

|                   |                        |   |                         |
|-------------------|------------------------|---|-------------------------|
| Construction note | $\$750,000 \times .15$ | = | \$112,500               |
| 5-year note       | $\$550,000 \times .10$ | = | 55,000                  |
| 10-year bonds     | $\$600,000 \times .12$ | = | <u>72,000</u>           |
| Actual interest   |                        |   | <u><u>\$239,500</u></u> |

The interest cost that Shalla capitalizes is the lesser of \$120,228 (avoidable interest) and \$239,500 (actual interest), or \$120,228.

# Interest Capitalization

Shalla records the following journal entries during 2011:

|             |                                 |         |         |
|-------------|---------------------------------|---------|---------|
| January 1   | Land                            | 100,000 |         |
|             | Building (or CIP)               | 110,000 |         |
|             | Cash                            |         | 210,000 |
| March 1     | Building                        | 300,000 |         |
|             | Cash                            |         | 300,000 |
| May 1       | Building                        | 540,000 |         |
|             | Cash                            |         | 540,000 |
| December 31 | Building                        | 450,000 |         |
|             | Cash                            |         | 450,000 |
|             | Building (Capitalized Interest) | 120,228 |         |
|             | Interest Expense                | 119,272 |         |
|             | Cash                            |         | 239,500 |

# Interest Capitalization

At December 31, 2011, Shalla discloses the amount of interest capitalized either as part of the income statement or in the notes accompanying the financial statements.

|                            |                |                |
|----------------------------|----------------|----------------|
| Other income and expense   |                |                |
| Interest expense           | \$239,500      |                |
| Less: Capitalized interest | <u>120,228</u> | <u>119,272</u> |
| Income before income tax   |                | XXXX           |
| Income tax                 |                | <u>XXX</u>     |
| Net income                 |                | <u>XXXX</u>    |

**Note 1: Accounting Policies.** *Capitalized Interest.* During 2011 total interest cost was \$239,500, of which \$120,228 was capitalized and \$119,272 was charged to expense. The capitalization rate used was 11.04%.

# Disclosure

## What must be disclosed?

- A. The accounting policy adopted for borrowing costs
- B. The amount of borrowing costs capitalized during the period
- C. The capitalization rate used to determine the amount of borrowing costs eligible for capitalization
- D. The interest rates on the general and specific borrowings obtained by the entity
- E. All of the above

# Exercise Time!

Arlington Company is constructing a building. Construction began on January 1 and was completed on December 31. Expenditures were P2,400,000 on March 1, P1,980,000 on June 1, and P3,000,000 on December 31. Arlington Company borrowed P1,200,000 on January 1 on a 5-year, 12% note to help finance construction of the building. In addition, the company had outstanding all year a 10%, 3-year, P2,400,000 note payable and an 11%, 4-year, P4,500,000 note payable.

**1. What are the weighted-average accumulated expenditures?**

- a. 4,380,000**
- b. 3,155,000**
- c. 7,380,000**
- d. 3,690,000**

# Exercise Time!

**2. What is the weighted-average interest rate used for interest capitalization purposes?**

- a. 11%**
- b. 10.85%**
- c. 10.5%**
- d. 10.65%**

**3. What is the avoidable interest for Arlington Company?**

- a. P144,000**
- b. P463,808**
- c. P164,281**
- d. P352,208**



# Exercise Time!

**4. What is the actual interest for Arlington Company?**

- a. P879,000**
- b. P891,000**
- c. P735,000**
- d. P352,208**

**5. What amount of interest should be charged to expense?**

- a. P382,792**
- b. P735,000**
- c. P526,792**
- d. P415,192**



# I own, I owe, let it grow

## IFRS 9 Financial Instruments



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# Learning Objectives

1. Describe the accounting framework for financial assets and financial liabilities.
2. Understand the accounting for debt investments at amortized cost.
3. Understand the accounting for debt investments at fair value.
4. Understand the accounting for equity investments at fair value.
5. Discuss the accounting for impairments of debt investments
6. Discuss the accounting for embedded derivatives.

# What is a Financial Instrument?



➤ A contract that gives rise to:

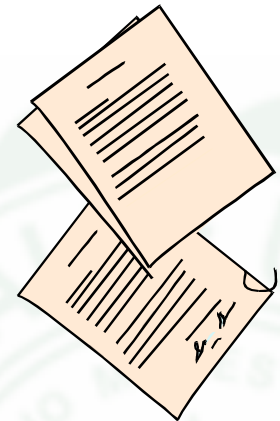
**Financial Asset**

in one enterprise

and

**Financial Liability or  
Equity Instrument**

in another enterprise



# Key Definitions



A financial asset is any asset that is:

- ✓ cash
- ✓ a contractual right to receive cash or another financial asset from another enterprise
- ✓ a contractual right to exchange financial instruments with another enterprise under conditions that are potentially favorable
- ✓ an equity instrument of another enterprise

# Key Definitions



## Financial liability

Any liability that is a contractual obligation:

- ✓ to deliver cash or another financial asset to another enterprise; or
- ✓ to exchange financial instruments with another enterprise under conditions that are potentially unfavorable

## Equity instrument

Any contract that evidences a residual interest in the assets of an enterprise after deducting all of its liabilities

# Liabilities and Equity Instruments



- Financial instruments issued by the enterprise should be classified as liabilities or equity instruments according to their substance
  - This depends on whether the instrument contains any of the elements of a liability as defined in the standard
- Where the instrument contains both liability and equity components, they should be classified and accounted for separately
  - Interest, dividends, losses and gains should be classified in the P&L consistently with the balance sheet treatment

# Classification of Financial Instruments

## Definition of financial instruments

Any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity (IAS 32:11)

## Financial assets

Cash

Equity instrument  
of another entity

Contractual right

Contract settled  
in own equity  
instrument

## Financial liabilities

Contractual obligation

Contract settled in own equity  
instrument

## Equity

Contract that provide evidence of a residual interest in net assets



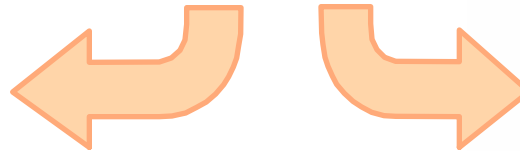
# Initial measurement



Financial asset or financial liability  
is initially recognized

at cost

**fair value of  
consideration  
given in case  
of asset**



**fair value of  
consideration  
received in  
case of liability**

Transaction costs on purchase are included

Transaction costs that may be incurred on  
disposal are excluded

# Subsequent measurement:

## Financial assets

Financial assets  
are subsequently recognized

at amortized cost

**Originated  
loans and  
receivables**

**Held to maturity  
investments**

at fair value

**Financial  
assets held  
for trading**

**Available for  
sale securities**

# Subsequent measurement:

## Financial liabilities

Financial liabilities  
are subsequently recognized

at fair value

**All derivative  
liabilities**

**Other liabilities  
held for trading  
(e.g. short  
sales)**

at amortized cost

**All other financial liabilities**

# Types of financial instruments

## Financial Instruments

### Primary

- Deposits of cash
- Bonds, loans, borrowings
- Receivables / payables (including finance leases)
- Equity instruments

### Derivatives

- Forwards / futures
- Financial options
- Swaps
- Caps and collars
- Financial guarantees

### Combinations

- Convertible debt
- Exchangeable debt
- Dual currency bond

# Investments under IAS 32, 39; IFRS 7, 9



- Amortized cost
- Fair value
- Fair value option
- Summary of debt investment accounting

- Fair value
- Equity method
- Consolidation

- Impairment of value
- Transfers between categories
- Fair value controversy
- Summary

# Accounting for Financial Assets

## Measurement Basis—A Closer Look

**Equity investments** are generally recorded and reported at fair value.

### Summary of Investment Accounting Approaches

Illustration 17-1

| <u>Type of Investment</u> | <u>Assessment of Accounting Criteria</u>                                    | <u>Valuation Approach</u> |
|---------------------------|---|---------------------------|
| Debt (Section 1)          | Meets business model (held-for-collection) and contractual cash flow tests. | Amortized cost            |
|                           | Does not meet the business model test (not held-for-collection).            | Fair value                |
| Equity (Section 2)        | Does not meet contractual cash flow test.                                   | Fair value*               |

\*For some equity investments for which the investor exercises some control over the investee, use the equity method.

# Debt Investments

Debt investments are characterized by contractual payments on specified dates of

- ◆ principal and
- ◆ interest on the principal amount outstanding.

Companies **measure** debt investments at

- ◆ amortized cost or
- ◆ fair value.

# Debt Investments—Amortized Cost

**Illustration:** Robinson Company purchased \$100,000 of 8% bonds of Evermaster Corporation on January 1, 2011, at a discount, paying \$92,278. The bonds mature January 1, 2016 and yield 10%; interest is payable each July 1 and January 1. Robinson records the investment as follows:

January 1, 2011

Debt Investments

92,278

Cash

92,278



# Debt Investments—Amortized Cost

Illustration 17-3

Schedule of  
Interest  
Revenue and  
Bond  
Discount  
Amortization—  
Effective-Interest  
Method

| 8% BONDS PURCHASED TO YIELD 10%   |                       |                       |                                  |                                |
|---|-----------------------|-----------------------|----------------------------------|--------------------------------|
| Date  | Cash<br>Received      | Interest<br>Revenue   | Bond<br>Discount<br>Amortization | Carrying<br>Amount<br>of Bonds |
| 1/1/11  |                       |                       |                                  | \$ 92,278                      |
| 7/1/11  | \$ 4,000 <sup>a</sup> | \$ 4,614 <sup>b</sup> | \$ 614 <sup>c</sup>              | 92,892 <sup>d</sup>            |
| 1/1/12  | 4,000                 | 4,645                 | 645                              | 93,537                         |
| 7/1/12  | 4,000                 | 4,677                 | 677                              | 94,214                         |
| 1/1/13  | 4,000                 | 4,711                 | 711                              | 94,925                         |
| 7/1/13  | 4,000                 | 4,746                 | 746                              | 95,671                         |
| 1/1/14  | 4,000                 | 4,783                 | 783                              | 96,454                         |
| 7/1/14  | 4,000                 | 4,823                 | 823                              | 97,277                         |
| 1/1/15  | 4,000                 | 4,864                 | 864                              | 98,141                         |
| 7/1/15  | 4,000                 | 4,907                 | 907                              | 99,048                         |
| 1/1/16  | 4,000                 | 4,952                 | 952                              | 100,000                        |
|   | <u>\$40,000</u>       | <u>\$47,722</u>       | <u>\$7,722</u>                   |                                |
| <sup>a</sup> \$4,000 = \$100,000 × .08 × ½ <sub>12</sub><br><sup>b</sup> \$4,614 = \$92,278 × .10 × ½ <sub>12</sub><br><sup>c</sup> \$614 = \$4,614 – \$4,000<br><sup>d</sup> \$92,892 = \$92,278 + \$614 |                       |                       |                                  |                                |

# Debt Investments—Amortized Cost

**Illustration:** Robinson Company records the receipt of the first semiannual interest payment on July 1, 2011, as follows:

July 1, 2011

|                  |       |       |
|------------------|-------|-------|
| Cash             | 4,000 |       |
| Debt Investments | 614   |       |
| Interest Revenue |       | 4,614 |

# Debt Investments—Amortized Cost

**Illustration:** Robinson is on a calendar-year basis, it accrues interest and amortizes the discount at December 31, 2011, as follows:

December 31, 2011

|                     |       |
|---------------------|-------|
| Interest Receivable | 4,000 |
| Debt Investments    | 645   |
| Interest Revenue    | 4,645 |

# Debt Investments—Amortized Cost

## Reporting Bond Investment at Amortized Cost

Illustration 17-3

### Statement of Financial Position

Long-term investments

Debt investments

\$93,537

Current assets

Interest receivable

\$ 4,000

### Income Statement

Other income and expense

Interest revenue (\$4,614 + \$4,645)

\$ 9,259

# Debt Investments—Fair Value

**Debt investments at fair value** follow the same accounting entries as debt investments held-for-collection during the reporting period. That is, they are recorded at amortized cost.

However, at each reporting date, companies

- ◆ Adjust the **amortized cost** to fair value.
- ◆ Any unrealized holding gain or loss reported as part of **net income** (fair value method).

# Debt Investments—Fair Value

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- ◆ Adjust the **amortized cost** to fair value.
- ◆ Any unrealized holding gain or loss reported as part of **net income** (fair value method).

# Debt Investments—Fair Value

**Illustration:** Robinson Company purchased \$100,000 of 8% bonds of Evermaster Corporation on January 1, 2011, at a discount, paying \$92,278. The bonds mature January 1, 2016 and yield 10%; interest is payable each July 1 and January 1.

The journal entries in 2011 are exactly the same as those for amortized cost.

# Debt Investments—Fair Value

**Illustration:** Entries are the same as those for amortized cost.

**January 1, 2011**

|                  |        |        |
|------------------|--------|--------|
| Debt Investments | 92,278 |        |
| Cash             |        | 92,278 |

**July 1, 2011**

|                  |       |       |
|------------------|-------|-------|
| Cash             | 4,000 |       |
| Debt Investments |       | 614   |
| Interest Revenue |       | 4,614 |

**December 31, 2011**

|                     |       |       |
|---------------------|-------|-------|
| Interest Receivable | 4,000 |       |
| Debt Investments    |       | 645   |
| Interest Revenue    |       | 4,645 |



# Debt Investments—Fair Value

**Illustration:** To apply the fair value approach, Robinson determines that, due to a decrease in interest rates, the fair value of the debt investment increased to \$95,000 at December 31, 2011.

Illustration 17-5

|   |                        |
|---|------------------------|
| Fair value at December 31, 2011                             | \$95,000               |
| Amortized cost at December 31, 2011 (per Illustration 17-2) | <u>93,537</u>          |
| Unrealized holding gain or (loss)                           | <u><u>\$ 1,463</u></u> |

Securities Fair Value Adjustment 1,463

Unrealized Holding Gain or Loss—Income 1,463

# Debt Investments—Fair Value

## Financial Statement Presentation

Illustration 17-6

### Statement of Financial Position

#### Investments

|                  |          |
|------------------|----------|
| Debt investments | \$95,000 |
|------------------|----------|

#### Current assets

|                     |          |
|---------------------|----------|
| Interest receivable | \$ 4,000 |
|---------------------|----------|

### Income Statement

#### Other income and expense

|                                      |          |
|--------------------------------------|----------|
| Interest revenue (\$4,614 + \$4,645) | \$ 9,259 |
|--------------------------------------|----------|

|                                   |       |
|-----------------------------------|-------|
| Unrealized holding gain or (loss) | 1,463 |
|-----------------------------------|-------|

# Debt Investments—Fair Value

**Illustration:** At December 31, 2012, assume that the fair value of the Evermaster debt investment is \$94,000.

Illustration 17-7

| DEBT INVESTMENTS<br>DECEMBER 31, 2012                            |                   |            |                         |
|--|-------------------|------------|-------------------------|
| Investment   | Amortized<br>Cost | Fair Value | Unrealized Gain (Loss)  |
| Evermaster Corporation 10% bonds                                 | \$94,925          | \$94,000   | \$ (925)                |
| Less: Previous securities fair value<br>adjustment balance (Dr.) |                   |            | 1,463                   |
| Securities fair value adjustment (Cr.)                           |                   |            | <u><u>\$(2,388)</u></u> |

Unrealized Holding Gain or Loss—Income 2,388

Securities Fair Value Adjustment

# Debt Investments—Fair Value

## Financial Statement Presentation

Illustration 17-8

### Statement of Financial Position

#### Investments

|                  |          |
|------------------|----------|
| Debt investments | \$94,000 |
|------------------|----------|

#### Current assets

|                     |          |
|---------------------|----------|
| Interest receivable | \$ 4,000 |
|---------------------|----------|

### Income Statement

#### Other income and expense

|                                      |          |
|--------------------------------------|----------|
| Interest revenue (\$4,677 + \$4,711) | \$ 9,388 |
|--------------------------------------|----------|

|                                   |            |
|-----------------------------------|------------|
| Unrealized holding gain or (loss) | \$ (2,388) |
|-----------------------------------|------------|

# Debt Investments—Fair Value

## Income Effects on Debt Investment (2011-2013)

| Interest        | Gain on Sale   | Fair Value                | Total           |
|-----------------|----------------|---------------------------|-----------------|
|                 |                | Unrealized Gain<br>(Loss) |                 |
| \$ 9,259        | \$ 0           | \$1,463                   | \$10,722        |
| 9,388           | 0              | (2,388)                   | 7,000           |
| 7,935           | 3,557          | 925                       | 12,417          |
| <u>\$26,582</u> | <u>\$3,557</u> | <u>\$ 0</u>               | <u>\$30,139</u> |

| Years | Amortized Cost  |                | Unrealized<br>Gain (Loss) | Total           |
|-------|-----------------|----------------|---------------------------|-----------------|
|       | Interest        | Gain on Sale   |                           |                 |
| 2011  | \$ 9,259        | \$ 0           | \$0                       | \$ 9,259        |
| 2012  | 9,388           | 0              | 0                         | 9,388           |
| 2013  | 7,935           | 3,557          | 0                         | 11,492          |
| Total | <u>\$26,582</u> | <u>\$3,557</u> | <u>\$0</u>                | <u>\$30,139</u> |

Illustration 17-9

# Equity Investments

Equity investment represents ownership of ordinary, preference, or other capital shares.

- ◆ Cost includes price of the security.
- ◆ Broker's commissions and fees are recorded as expense.

The degree to which one corporation (**investor**) acquires an interest in the common stock of another corporation (**investee**) generally determines the accounting treatment for the investment **subsequent to acquisition**.

# Equity Investments

## Illustration 17-15

Levels of Influence

Determine Accounting Methods

| Percentage<br>of Ownership | 0% | ←————→               | 20% | ←————→           | 50% | ←————→        | 100% |
|----------------------------|----|----------------------|-----|------------------|-----|---------------|------|
| Level of<br>Influence      |    | Little or<br>None    |     | Significant      |     | Control       |      |
| Valuation<br>Method        |    | Fair Value<br>Method |     | Equity<br>Method |     | Consolidation |      |

# Equity Investments

## Illustration 17-16

### Accounting and Reporting for Equity Investments by Category

| <u>Category</u>                         | <u>Valuation</u> | <u>Unrealized Holding<br/>Gains or Losses</u>  | <u>Other Income Effects</u>                           |
|---|------------------|--|---|
| <b>Holdings less<br/>than 20%</b>       |                  |  |   |
| 1. Trading                              | Fair value       | Recognized in net<br>income  | Dividends declared;<br>gains and losses<br>from sale. |
| 2. Non-<br>Trading                      | Fair value       | Recognized in "Other<br>comprehensive<br>income" and as<br>separate component<br>of equity | Dividends declared;<br>gains and losses<br>from sale. |
| <b>Holdings between<br/>20% and 50%</b> | Equity           | Not recognized   | Proportionate share<br>of investee's net<br>income.   |
| <b>Holdings more<br/>than 50%</b>       | Consolidation    | Not recognized   | Not applicable.                                       |



# Equity Investments at Fair Value

Under **IFRS**, the presumption is that equity investments are **held-for-trading**.

General accounting and reporting rule:

- ◆ Investments valued at fair value.
- ◆ Record unrealized gains and losses in **net income**.

# Equity Investments at Fair Value

IFRS allows companies to classify some equity investments as **non-trading**.

General accounting and reporting rule:

- ◆ Investments valued at fair value.
- ◆ Record unrealized gains and losses in **other comprehensive income**.

# Impairment of Value

## Impairment of Value

For debt investments, a company uses the impairment test to determine whether “it is probable that the investor will be unable to collect all amounts due according to the contractual terms.”

This impairment loss is calculated as the difference between the carrying amount plus accrued interest and the expected future cash flows discounted at the investment’s historical effective-interest rate.

# Impairment of Value

**Illustration:** At December 31, 2010, Mayhew Company has a debt investment in Bellovary Inc., purchased at par for \$200,000. The investment has a term of four years, with annual interest payments at 10 percent, paid at the end of each year (the historical effective-interest rate is 10 percent). This debt investment is classified as held-for-collection. Using the following information record the loss on impairment.

# Impairment of Value

Illustration 17-24 & 25

| <u>Dec. 31</u>   | <u>Contractual<br/>Cash Flows</u> | <u>Expected<br/>Cash Flows</u> | <u>Loss of<br/>Cash Flows</u> |
|------------------|-----------------------------------|--------------------------------|-------------------------------|
| 2011             | \$ 20,000                         | \$ 16,000                      | \$ 4,000                      |
| 2012             | 20,000                            | 16,000                         | 4,000                         |
| 2013             | 20,000                            | 16,000                         | 4,000                         |
| 2014             | 220,000                           | 216,000                        | 4,000                         |
| Total cash flows | <u>\$280,000</u>                  | <u>\$264,000</u>               | <u>\$16,000</u>               |

|   |               |                  |
|---|---------------|------------------|
| Recorded investment   |               | \$200,000        |
| Less: Present value of \$200,000 due in 4 years at 10%<br>(Table 6-2); $FV(PVF_{4,10\%})$ ; $(\$200,000 \times .68301)$                         | \$136,602     |                  |
| Present value of \$16,000 interest receivable annually<br>for 4 years at 10% (Table 6-4); $R(PVF-OA_{4,10\%})$ ;<br>$(\$16,000 \times 3.16986)$ | <u>50,718</u> | <u>187,312</u>   |
| Loss on impairment  |               | <u>\$ 12,688</u> |

Loss on Impairment

12,688

Debt Investments

12,688



# CONVERGENCE CORNER

## INVESTMENTS



### RELEVANT FACTS

- ◆ U.S. GAAP classifies investments as trading, available for-sale (both debt and equity investments), and held to-maturity (only for debt investments). IFRS uses held-for-collection (debt investments), trading (both debt and equity investments), and non-trading equity investment classifications.
- ◆ The accounting for trading investments is the same between U.S. GAAP and IFRS. Held-to-maturity (U.S. GAAP) and held-for-collection investments are accounted for at amortized cost. Gains and losses related to available-for-sale securities (U.S. GAAP) and non-trading equity investments (IFRS) are reported in other comprehensive income.



# CONVERGENCE CORNER

## INVESTMENTS



### RELEVANT FACTS

- ◆ Both U.S. GAAP and IFRS use the same test to determine whether the equity method of accounting should be used—that is, significant influence with a general guide of over 20 percent ownership.
- ◆ The basis for consolidation under IFRS is control. Under U.S. GAAP, a bipolar approach is used, which is a risk-and-reward model (often referred to as a variable-entity approach) and a voting-interest approach. However, under both systems, for consolidation to occur, the investor company must generally own 50 percent of another company.



# CONVERGENCE CORNER

## INVESTMENTS



### RELEVANT FACTS

- ◆ U.S. GAAP and IFRS are similar in the accounting for the fair value option. That is, the option to use the fair value method must be made at initial recognition, the selection is irrevocable, and gains and losses are reported as part of income. One difference is that U.S. GAAP permits the fair value option for equity method investments.
- ◆ While measurement of impairments is similar, U.S. GAAP does not permit the reversal of an impairment charge related to available-for-sale debt and equity investments. IFRS allows reversals of impairments of held-for-collection investments.



# Definition of derivatives



A derivative is a financial instrument:

- a) whose value changes in response to the change in a specified **underlying**
- b) that requires **no initial net investment** or requires **little initial net investment** relative to other types of contracts that have a similar response to changes in market conditions
- c) that is **settled at a future date**.

# Definitions:

## Embedded Derivative

- **Embedded derivatives** are contract terms that modify the cash flows of a contract in a manner similar to a derivative.
- **Embedded derivatives** can be found in all types of contracts including debt instruments, leases, insurance contracts, commodity contracts, and purchase agreements.

# Embedded Derivative - Example



## Hybrid Contract

- ✓ Contracts containing embedded features that are not derivatives themselves - **Convertible Debt**

## Embedded Derivative

- ✓ Terms of a Hybrid Contract affecting cash flows or value of other exchanges similar to that of a derivative - **Call Option on Equity**

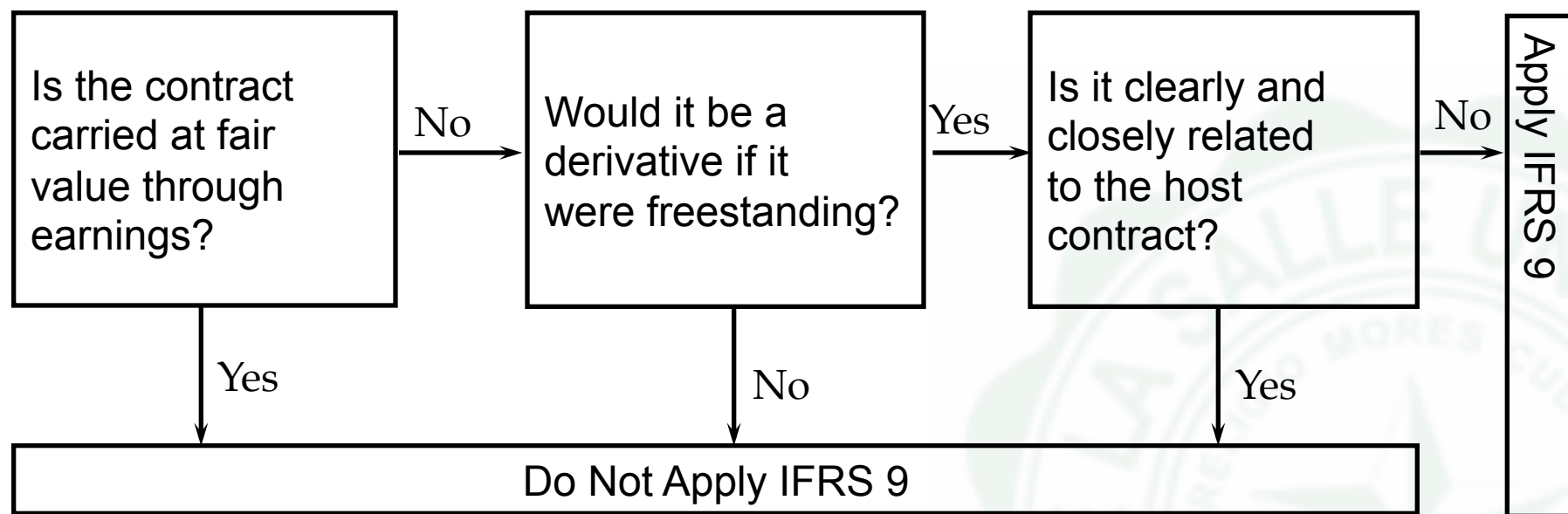
## Host Contract

- ✓ Portion of Hybrid Contract not attributed to Embedded Derivative - **Plain Debt**

# Bifurcating Embedded Derivatives



## Evaluating When To Bifurcate a Derivative From Host Contract



# Bifurcating Embedded Derivatives



## “Clearly and Closely Related” C&R: The Concept

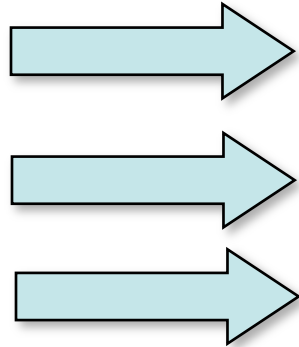
If the economic risks and characteristics of the Host Contract and Embedded Features are clearly and closely related, do not bifurcate.

# Clearly and Closely Related Variables



## Host contracts

- Debt
- Equity
- Leases



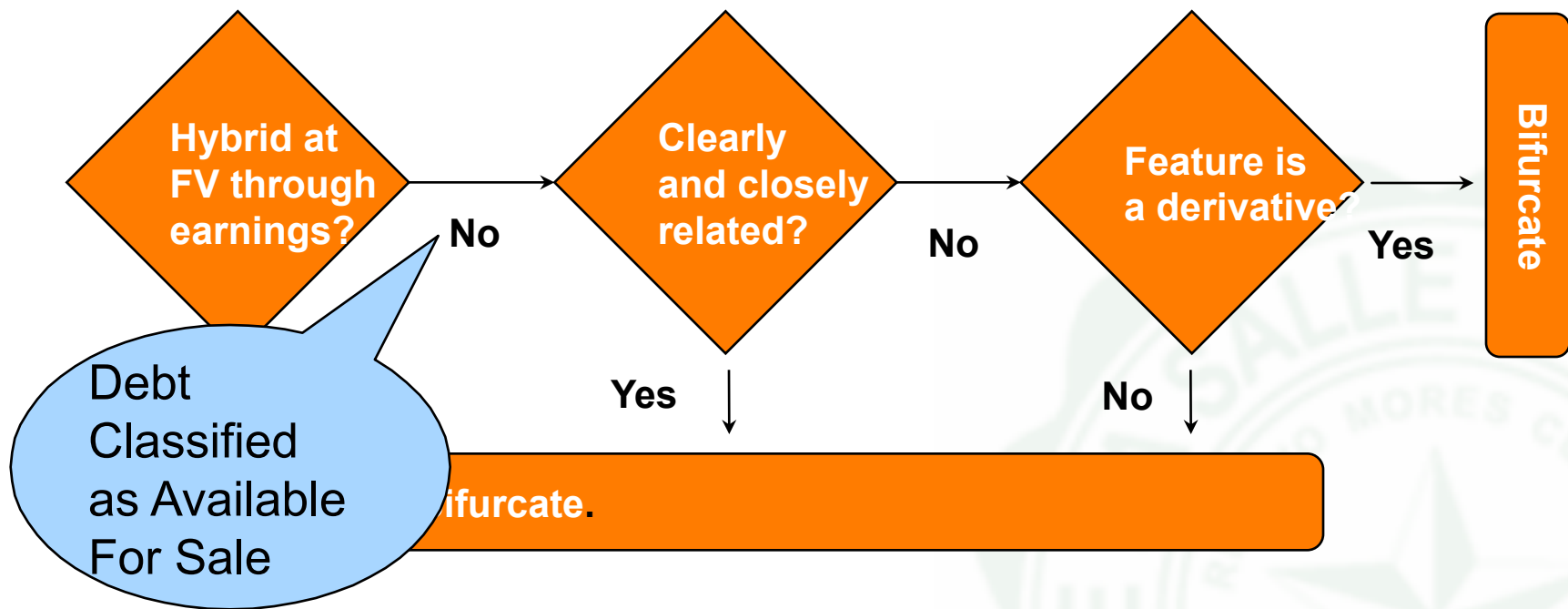
## Related Variables

- Interest, inflation, credit rating
- Equity prices
- Interest, inflation

# Bifurcating Embedded Derivatives

## An example

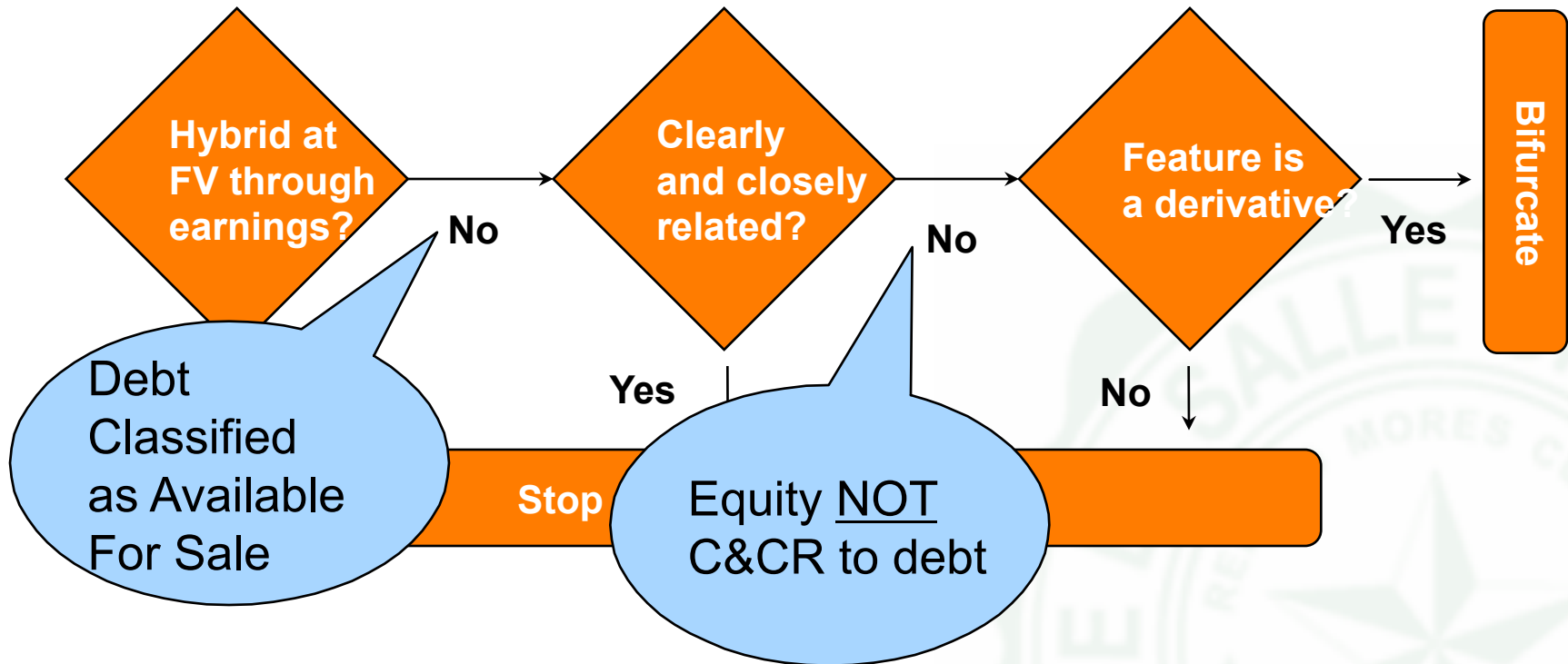
### Company's convertible bond investment



# Bifurcating Embedded Derivatives

## An example

Company's convertible bond investment

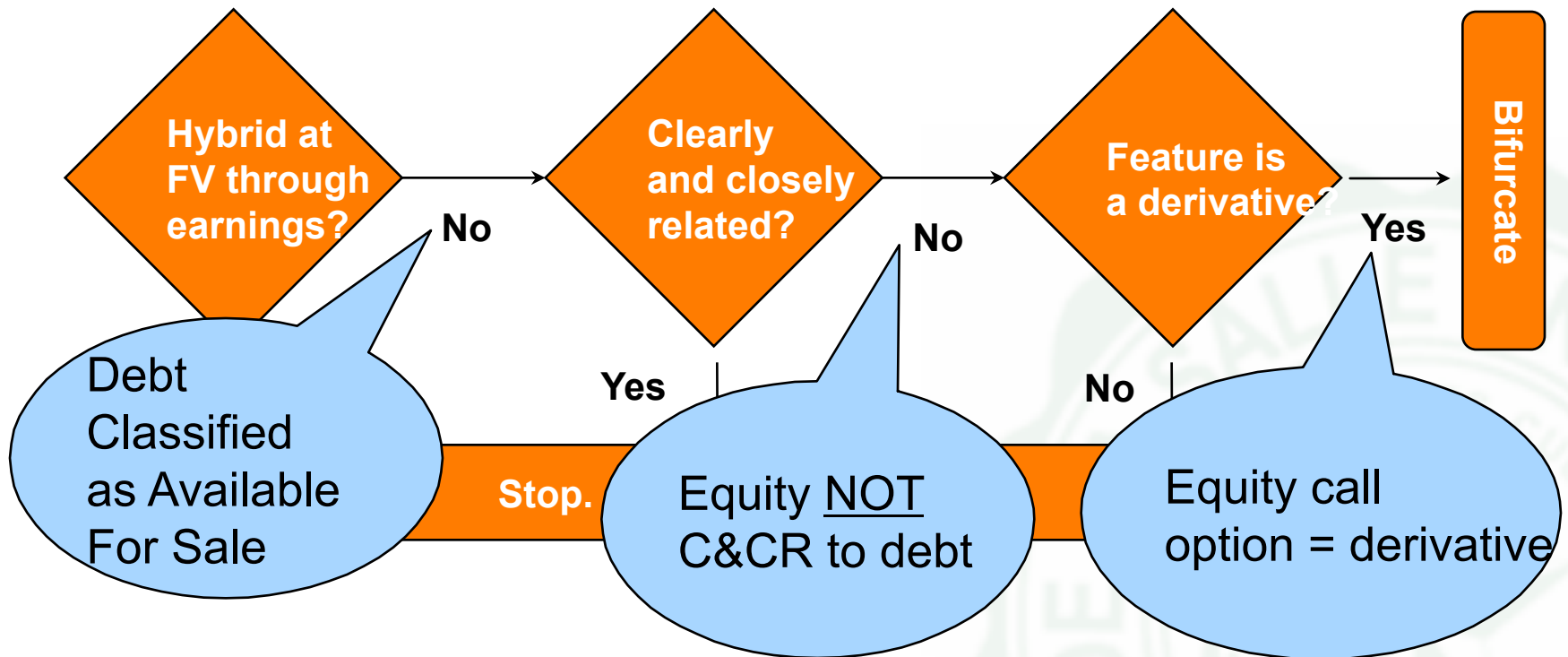




# Bifurcating Embedded Derivatives

## An example

Company's convertible bond investment



# Embedded derivatives:

## What are the consequences of separation?

### ➤ If separated:

- Host contract: apply applicable IFRS
- Derivative: apply IFSS 9 i.e. fair value the derivative and it may qualify as a hedging instrument

### ➤ If not required to separate:

- Apply applicable IFRS to the combined contract

### ➤ If required to separate, but unable to measure the derivative:

- The combined contract is treated as a instrument held for trading, carried at fair value, and does not qualify for hedge accounting

# Embedded derivatives: Impact of separation

How should the initial carrying amounts of a host and embedded derivative be determined if separation is required?

Initial carrying amount of host = Cost for the hybrid instrument - Fair Value of Embedded Derivative

NB: More than one embedded derivative may be separated from a host contract provided that they represent different risks.

# Conclusion



- Financial instruments is a big issue
  - for companies
  - for auditors
  - for advisers
- IFRS 9 gives more certainty and generally produces sensible answers
  - but hedging rules are not always clear
  - and derecognition criteria are confused
- IFRS 9 is complex and getting more so!
  - practice still developing

# Q&A



# Illustration 1:

## Initial recognition of debt and equity

### Scenario

- Convertible bond issued at par on 1 Jan 20x1
- Nominal value of \$100,000
- Repayable at 31 December 20x3
- Annual coupon at 4% per annum
- Convertible at \$1 of bond to 0.75 ordinary shares
- Effective interest of 10% per annum

# Illustration 1: Incremental Method of Allocation between Debt and Equity Components

## Debt Component

|   |                 |
|---|-----------------|
| PV of interest payment ( $4,000 \times PVIFA_{10\%,3}$ ) .....      | \$ 9,947        |
| PV of principal at maturity ( $100,000 \times PVF_{10\%,3}$ ) ..... | 75,132          |
| PV of debt component .....  | <u>\$85,079</u> |

### Note:

1. Discount rate based on effective market interest rate of 10%
2.  $PVIFA_{10\%,3}$  is PV of ordinary annuity at 10% for 3 periods
3.  $PVF_{10\%,3}$  is the PV of \$1 at the end of period 3 at 10% discount

# Illustration 1: Incremental Method of Allocation between Debt and Equity Components

## Equity Component

$$\begin{aligned}\text{Value of equity} &= \$100,000 - \text{Value of debt component} \\ &= \$100,000,000 - \$85,079 \\ &= \$14,921\end{aligned}$$

Note:

1. Bond issued at discount of \$14,921 (equals to value of equity) because bond issue at par
2. Discount of bond = Fair value – Nominal value
3. Value of equity = Nominal value – Value of debt component



# Illustration 1: Incremental Method of Allocation between Debt and Equity Components

## Journal entry at date of issue

|   |                                       |         |         |
|---|---------------------------------------|---------|---------|
| Dr  | Cash                                  | 100,000 |         |
| Dr  | Unamortized discount on bond (B/S)    | 14,921  |         |
| Cr  | 4% Bond payable (B/S)                 |         | 100,000 |
| Cr  | Capital reserve – Equity option (B/S) |         | 14,921  |
| Record debt and equity components of convertible bond |                                       |         |         |

# Illustration 1: Incremental Method of Allocation between Debt and Equity Components

## Journal entry at year-end

|    |                                 |       |       |
|----|---------------------------------|-------|-------|
| Dr | Interest expense .....          | 8,508 |       |
| Cr | Unamortized bond discount ..... |       | 4,508 |
| Cr | Cash .....                      |       | 4,000 |

Record interest expense using effective interest rate method

### Note:

1. Interest expense is based on the effective interest rate of 10%:  $\$85,079 \times 0.1$
2. Amortization of bond discount is the difference between the effective interest expense and the cash interest paid:  $\$8,508 - \$4,000$

# Effect of the Separation of Debt and Equity Elements in a Compound Financial Instrument

|                           | No split accounting                     | Split accounting                        |
|---------------------------|---|---|
| Net income                | Net earnings higher                     | Net earnings lower                      |
| Balance sheet             | Higher carrying amount;<br>lower equity | Lower carrying amount;<br>higher equity |
| Selected financial ratios |   |   |
| Net profit margin         | Higher                                  | Lower                                   |
| Debt-equity ratio         | Higher                                  | Lower                                   |
| Return on equity          | Higher                                  | Lower                                   |
| Times interest earned     | Higher                                  | Lower                                   |



# I own, I owe, let it grow

## IFRS 9 Financial Instruments



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*Assistant Professor*

