Study Session 9

Financial Reporting and Analysis: Inventories, Long-Term Assets, Deferred Taxes and On- and Off-Balance Sheet Debt.

Reading 37: Long-lived Assets

Some terminology

- ✓ Long-lived assets can also be known as non-current assets, long-term assets of fixed assets
- ✓ These are assets which were purchased with the intention of ongoing use within the business rather than for ay to day operating
- ✓ Tangible assets can be touched ~ they are subject to depreciation
- ✓ Intangible assets do not have physical substance~ they are amortised

Capitalising versus Expensing

Sakiko Sohna follows BigBus, a firm of inter-city bus operators. She has just learnt that in the next financial year BigBus will spend $3m of their cash replacing old diesel with new hybrid engines. Sakiko is unsure whether these will be accounted for by BigBus as

- ✓ a repair to the existing fleet and so an expense in the next accounting period or
- ✓ An improvement to the existing fleet and so capitalised and, in accordance with BigBus's normal accounting policy, depreciated to zero residual value over a three year period.

Sakiko asks you to update her most recent forecast to reflect how the Financial Statements would appear under either possible treatment, asking you to ignore tax.

Income Statement Impact

Prior forecast for each of the next three years		Revised assuming expensing			Revised assuming capitalising		
	(US$)	Yr. 1	Yr.2	Yr. 3	Yr. 1	Yr.2	Yr. 3
EBITDA	10m						
Depreciation expense	-1m						
Tax	-1m						
Net Income	8m						

Cash flow and Balance Sheet Adjustments

Prior forecast – extracts		Adjustments assuming expensing			Adjustments assuming capitalising		
	US$	Yr. 1	Yr.2	Yr. 3	Yr. 1	Yr.2	Yr. 3
Long-lived Assets							
Cost	20m						
Accum. Depreciation	-9m						
Net Book Value	11m						
Cash at Bank	5m						
Retained Earnings	6m						
CFO	+10m						
CFI	-5m						
CFF	-5m						

Impact on Ratios

Compared to a firm which capitalises as much as is permissible a firm which expensed in the period the cash flow occurred will initially show

Ratio	Higher	Unchanged	Lower
Return on Assets			✓
Return on Equity			✓
Profit Margin			✓
Current Ratio		✓	
Investing Cash Flow	✓		
Asset Turnover	✓		

Impact on Ratios

A number of years ago, two firms bought substantial amounts of asset. CAPIT capitalised the assets and depreciates them on a straight line basis.

Compared to a similar company that treated the items as an expense in the period CAPIT will show

Ratio	Higher	Unchanged	Lower
Return on Assets			✓
Return on Equity			✓
Profit Margin			✓
Current Ratio		✓	
Investing Cash Flow		✓	
Asset Turnover			✓

Tangible Assets

In order to report the highest earnings figure in a period where significant long-lived asset purchases are envisaged a firm should choose

	Depreciation Method	Useful life	Salvage Value
A	Accelerated	Short	High
B	Straight line	Long	High
C	Straight Line	Long	Low

Capitalization of Interest costs

Where an entity engages in the construction of an asset for its own continuing use, the entity must capitalize any interest cost associated with the asset as part of the cost of the asset.

This might result in distortions as

- ✓ The cost of the asset may be overstated
- ✓ Interest payments will be shown as an Investing rather than operating cash flows
- ✓ The interest expense will be understated and depreciation expense overstated

Illustration of the accounting Rules

Over the last 12 months Eradian Hotels borrowed $10m at an interest cost of 10% per annum. Total construction (excluding capitalized interest) were $99m. The hotel opened for business on the first day of the next financial year.

	Balance Sheet	Income Statement	Cash Flow Statement
Before adjusting for the Capitalized interest rules			
After the accounting rule has been applied			

Tangible Assets ~ with Capitalized interest

Harry Brubaker is reviewing the financial statements of Hilskis Hotels and notes the following:

	This Year	Last Year
Book value of Hotels	$58,180,012	$53,124,233
Includes Capitalized Interest of	$2,365,749	$1,651,456
Interest Expense	$3,651,651	$3,210,959

Harry wants to restate this years figures to remove the impact of the capitalised interest. After adjustment the revised figures should be closest to.

	Assets	Interest Expense
A	$60,545,761	$6,017,400
B	$55,814,263	$4,365,944
✓C	$55,814,263	$2,937,358

Intangible Assets ~ Goodwill

Frank states that goodwill is the value of a firms intangible assets (intellectual property, brands and so on) at the date where one business is acquired by another. It is generally lower in Europe as IFRS GAAP requires goodwill to be amortised over its expected useful life. Is Frank correct with regard to

	Description	IFRS Treatment
A	Yes	Yes
B	Yes	No
C	No	No

Intangible Assets

Goodwill – “an intangible asset that represents the excess of the consideration paid over the value of the net assets acquired”

Under IFRS and US GAAP once capitalised

goodwill is NOT amortised but IS subject to an annual impairment review.

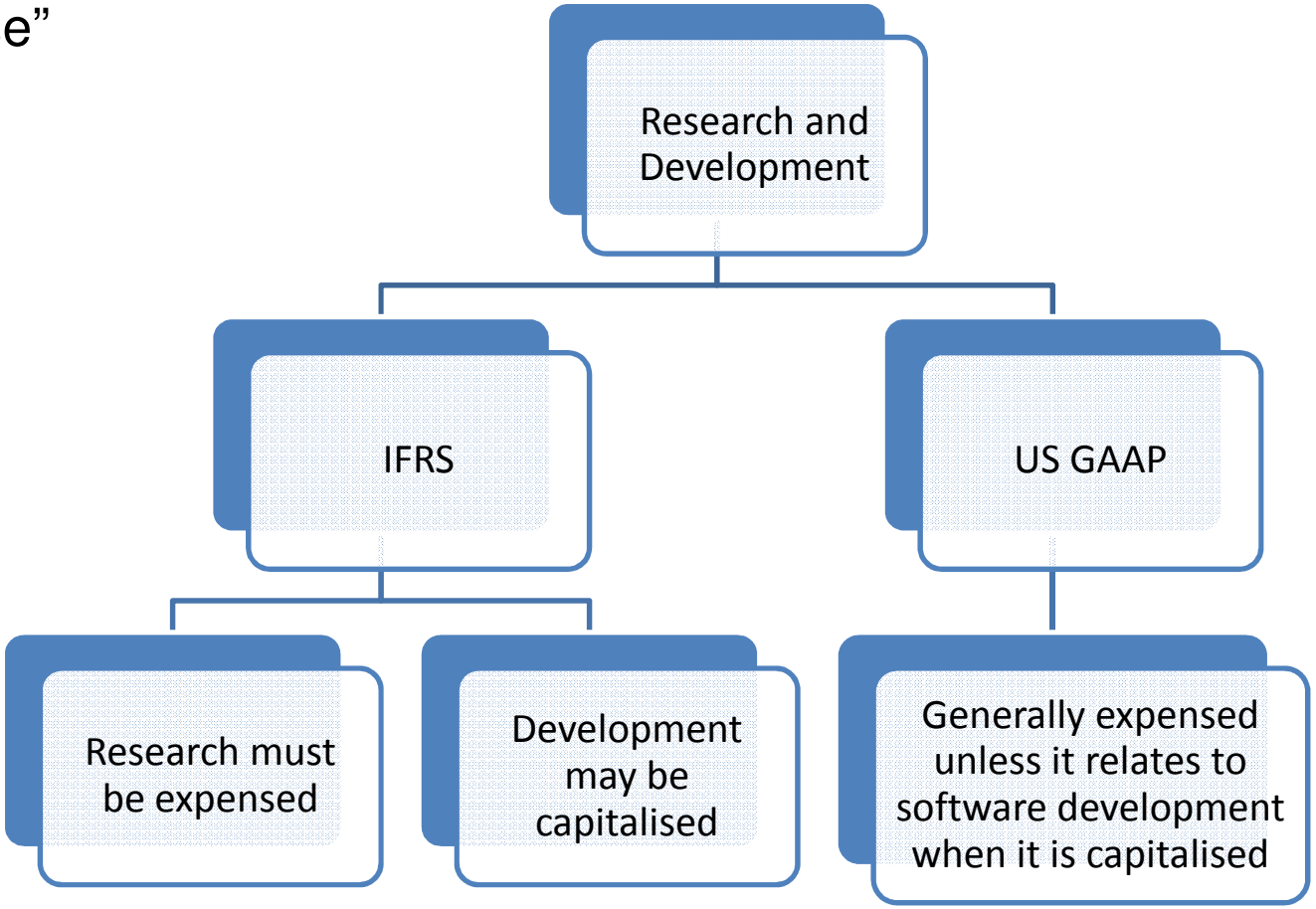
Other Intangibles - Generally internally generated intangibles are expensed in the period incurred; purchased intangibles are capitalised and amortised over their expected useful life.

If intangibles are purchased as part of a business combination they should be capitalised at their estimated fair value.

Research and Development

Research – where there is no certainty over what is being created

Development – the application of research ... for commercially viable use”



Tangible Assets – Depreciation Methods

Straight line method

$$\text{Depreciation Expense} = \frac{\text{Cost - Salvge Value}}{\text{Useful Life}}$$

Units of production method – based on the proportion of production capacity consumed in the period

Accelerated methods - where a higher expense is taken in earlier periods; most commonly the double (aka 200%) declining balance method.

$$\text{Depreciation Expense}_p = \frac{2}{n}(\text{Opening BookValue}_p)$$

Illustrating Depreciation

An asset will cost $12,000, have a 3 year useful life and a $3,000 salvage value. Assuming it has a production budget of 6,000 units in the first year and 3,000 units in the second and third year you are required to show the Relevant Balance Sheet and Income Statement extracts:

Using Fixed Asset Disclosures

These calculations are approximations with salvage values and non-straight line depreciation being two sources of inaccuracy

$$\text{Total Useful Economic Life} = \frac{\text{Cost}}{\text{Depreciation Expense}}$$

$$\text{Estimated Age} = \frac{\text{Accumulated Depreciation}}{\text{Depreciation Expense}}$$

$$\text{Estimated Remaining Life} = \frac{\text{Book value}}{\text{Depreciation expense}}$$

Using Fixed Asset Disclosures to Estimate Asset Ages

Sakiko Sohna, an analyst, has half completed a review comparing two firms and has asked you to complete the other half.

	Sodor	Hiro
Gross Asset Cost	987,330	122,925
Accumulated Depreciation	329,110	49,170
Net Book Value	658,220	73,755
Depreciation Expense	164,555	24,585
Useful Economic Life	6 years	?
Estimated Age	2 years	?
Remaining Life	4 years	?

Asset Retirement Obligations

IOS have entered into a 5-year make-good lease on new premises.

The lease cost $4m; fitting out another $0.5m and the contractors quoted a price of $701,275.87 payable in 5 years time to restore the premises back as they were. IOS have a 7% cost of Capital.

You are required to show

1. How much will be capitalised at initiation
2. The total expense for the first year

Disposal of Long-lived Assets

Sakiko Sohna has asked you to complete some research on IOS. She has extracted the following information from IOS Annual Report and Accounts. She has asked you to calculate the Investing Cash Flow from the asset disposal and to calculate the operating margin as reported and adjusted to ignore the effect of the disposal.

Book Value of assets disposed	$52,355
Sales	$226,847
Gain on Sale of Assets	$12,359
Operating Income	$144,138

Asset Impairments

Asset impairments arise where a long-lived assets carrying value is not recoverable.

The asset value needs to be reduced and an impairment loss taken in the Income Statement

Under US GAAP the asset will be impaired if the present value of cash flows is less than current carrying value.

Under IFRS the asset's impaired value is the higher of Present Value of Cash flows or fair value less costs to sell.

Tangible Long-Lived Assets ~ Impairments

New England Grills has an asset on its books with a net book value of $85,000. The asset is a piece of manufacturing equipment and is used to make a product whose profitability is declining. The asset has a current fair market value after selling commissions of $80,000

It estimates that cash flows over the next 4 years will be flat at $22,000. Using a discount rate of what 5% will be the book value of the asset under

	IFRS GAAP	US GAAP
A	$78,011	$78,011
✓B	$80,000	$78,011
C	$78,011	$80,000

Upward Revaluations

- ✓ US GAAP – assets cannot be adjusted up (other than inventories of agricultural produce / commodities held by producers or dealers and some financial assets).

- ✓ IFRS GAAP permits upward revaluation.
  - ✓ Reversals of impairments taken to the Income Statement are added back to the income statement;
  - ✓ Inventory IS NOT adjusted above initial cost;
  - ✓ Long-lived assets may be adjusted above initial cost but the amount above cost is taken through the Statement of Change of Owners Equity rather than the Income Statement.

Impairments and Revaluations

Boston Properties purchased a property for $350,000 18 months ago. Unfortunately for Boston the property market fell severely and by last years balance sheet the asset was valued at $275,000. Fortunately for Boston the property market then recovered and at this years balance sheet date the property was valued at $450,000. All changes in value were due to market fluctuations and the condition of the property remained the same.

	Under US GAAP	Under IFRS GAAP
A	Income Statement = Gain $75,000 Balance Sheet = $350,000	Income Statement = Gain $75,000 Balance Sheet = $350,000
B	Income Statement = $- Balance Sheet = $275,000	Income Statement = Gain $175,000 Balance Sheet = $450,000
✓C	Income Statement = $- Balance Sheet = $275,000	Income Statement = Gain $75,000 Balance Sheet = $350,000

Intangible Long-Lived Assets ~ Impairments

Can goodwill which has previously been reduced in value as a result of an impairment review be re-valued up where the circumstances that caused the initial impairment cease to exist?

	Under IFRS GAAP	Under US GAAP
A	Yes	Yes but not beyond its initial value
B	Yes but not beyond its initial value	No
C	No	No