

A86045 Accounting and Financial Reporting (2017/2018)

Session 18

Financial Instruments 1 Non-Derivatives

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SESSION 18 OVERVIEW

Course Objectives

At the end of this course students will be able to:

- ***Read and perform a high level interpretation*** of the financial statements of companies applying international accounting standards
- ***Identify and evaluate*** the impact on a companies accounts of alternative accounting methods
- ***Carry out a high level assessment*** of the the economic- financial position of a company reporting under IAS/IFRS.

Course Overview

	1. Financial reporting under IFRS	14. Construction contracts	
	2. Financial analysis: Ratio analysis	15. Other Non-financial liabilities	
	3. Financial analysis: Segments and EPS	16. Review session	
	4. Review session	17. Mid term test (Mon April 16)	PGS
	5. Revenues	18. Financial Instruments 1	
PGS	6. Costs and expenses	19. Financial Instruments 2	
	7. Taxation - Direct and Indirect	20. Review session	
	8. Non-current assets - Intangible assets	21. Cash Flow Statement	
	9. Non-current assets - Tangible assets	22. Group accounts/Business comb	PT
	10. Financial leases	23. Review session	
	11. Impairment of assets	24. Review session	
	12. Review session	25. Final test	PGS
PT	13. Inventories		

Session 18 Overview

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Objectives of Session 18

At the end of this session students will be able to:

Define what a **Financial Instrument** is and articulate the rules for recognizing, classifying and measuring these.

Explain *how **Trade Accounts Receivable** are valued in the balance sheet and understand the rules for **de-recognition** of accounts receivable and the **disclosure requirements** relating to credit risk.*

*Understand **the definition of fair value**; how to apply the fair value measurement framework; and the **required disclosures** about fair value measurements.*

SESSION 17 RECAP AND PRE-WORK SESSION 18

Session 18 Pre-work

- Reading
 - Melville International Financial Reporting – A Practical Guide :
 - Chapter 11 – Financial Instruments
 - IASB Technical Summaries
 - IAS 32 Financial Instruments: Presentation
 - IAS 39 Financial Instruments: Recognition and Measurement
 - IFRS 7 Financial Instruments: Disclosures
 - IFRS 9 Financial Instruments
- Exercises
 - Melville Chapter 11.1 – 11.6,
 - Melville on-line multiple choice questions for chapter 11
 - EX 18 Financial Instruments – Exercises
 - EX 18.2 Accounts Receivable - Exercises
- Research Assignment
 - RA 13 Financial Instruments: Identify the nature of the Financial Instruments in your chosen company and be prepared to discuss how they are classified and accounted for.

Recap Session 17

- Mid-term test

FINANCIAL INSTRUMENTS

Financial Instruments – Definition

IFRS 9

*A **Financial Instrument** is any contract that gives rise to a **financial asset** of one entity and a **financial liability** or **equity instrument** of another entity*

Financial Instruments

- A business creates financial assets and liabilities through:
 - Buying and selling on credit
 - Borrowing to finance itself
 - Investing or trading in equity and other instruments
 - Raising additional cash from shareholders
 - Risk management activities
- Businesses are exposed to the following risks:
 - Credit risk (Counterparty can't meet its obligations)
 - Liquidity risk (Company can't meet its own obligations)
 - Market risk (Fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices)
 - Price
 - Interest rate
 - Exchange rate

Financial Instruments

Primary financial instruments

Cash and contractual rights to receive or obligations to pay cash in future where one party's right to receive cash is matched by the other party's obligation to deliver cash

Receivables, Payables and equity instruments

Derivative financial instruments

A Financial instrument with all of the following three characteristics:

- a) Its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (Underlying)
- b) It requires no initial net investment or an initial net investment that is smaller than would be required for other types of contract that would be expected to have a similar responses to changes in market forces
- c) It is settled at a future date

Financial options, futures and forwards, interest rate swaps and currency swaps

Financial Instruments

Non-derivatives

Financial assets

Cash, Short-Term
Investments, Accounts
Receivable

Financial liabilities

Bank overdrafts, Short-
term Loans, Accounts
Payable

Compound Financial
Instruments

Current

Non-current

Equity

Investments, Loans and
Receivables

Long-term Loans,
Borrowings

Debt

Equity

Derivatives

Interest rate

Swaps, foreign currency swaps

Foreign currency

Options, forward contracts, collars, swaps

Commodity

Forward contracts, futures, options

Equity investments

Equity based derivatives

Risk management
tools

Financial Instruments

	Topic addressed	Issue date	Effective date	
IAS 32	Presentation*	12/2003	1/2005	
IAS 39	Recognition and measurement (Impairment, hedge accounting)	12/2003	1/2005	EU Macro hedging carve out
IFRS 7	Disclosures	8/2005	1/2007	
IFRS 9 (2009, 2010, 2013)	Classification and measurement	10/2010	1/2015	Not endorsed by EU
IFRS 9	Recognition, de-recognition, classification, measurement, hedge accounting	7/2014	1/2018	Endorsed 22.11.2016

* Disclosure requirements transferred to IFRS 7. Now deals mainly with the classification of debt/equity instruments from issuer perspective

The IASB's goal is that IFRS 9 will ultimately replace IAS 39 in three phases:

1. Classification and measurement of financial assets and liabilities
2. Impairment methodology
3. Hedge accounting

Evolution of IFRS 7 & 9

	Presentation & Classification	Recognition, Derecognition & Measurement		Hedge Accounting		Disclosures	
1990						IAS 30	Banks & OFIs
1995	IAS 32					IAS 32	
1998	IAS 32 (R))	IAS 39				IAS 32 (R)	
1999		IAS 39 (R)					
2000	IAS 32 (R)					IAS 32 (R)	
2001		IAS 39 (R)		IAS 39 (R)			
2003	IAS 32 (R)*	IAS 39 (R)		IAS 39 (R)		IAS 32 (R)	
2005						IFRS 7	
2009		IFRS 9	Financial Assets	}			Initial effective date 2013 then 2015 then deferred
2010		IFRS 9 (R)	Financial Liabilities				
2013		IFRS 9 (R)		IFRS 9 (R)	Hedge Accounting		Optional – no effective date
2014	IFRS 9 (R)	IFRS 9 (R)		IFRS 9 (R)			Effective January 2018

Financial instruments

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

- **Financial asset** – any asset that is:
 - Cash
 - An equity instrument of another entity
 - A contractual right:
 - To receive cash or another financial asset from another entity; or
 - To exchange financial assets or financial liabilities with another entity under conditions that are potentially favorable to the entity; or
 - A contract that will or may be settled in the entities own equity instruments and is:
 - A **non-derivative** for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or
 - A **derivative** that will be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.
- **Financial liability** – any liability that is:
 - A contractual obligation
 - To deliver cash or another financial asset to another entity; or
 - To exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the entity; or
 - A contract that will or may be settled in the entities own equity instruments and is:
 - A **non-derivative** for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or
 - A **derivative** that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.
- **Equity instrument** is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities

Financial instruments – Recognition and measurement

*A financial asset or liability is only recognized in the balance sheet when, **and only when**, the entity becomes a party to the contractual provisions of the instrument. Prior to this there are no contractual rights or obligations.*

Examples	Recognition criteria met
Accounts Receivable and Accounts payable	Yes – legal right to receive or obligation to pay cash.
Firm commitments to purchase or sell goods and services	No – not until one of the parties has performed under the agreement
Forward contracts	Yes – It is a contract and recognized at the commitment date. It is recognized at the fair value of the right and obligation.
Option contracts	Yes - Right to buy “call” or sell “put”. “Bought” by the purchaser or “written” by the party with the obligation. Can be “in the money” or “out of the money”
Planned future contracts (forecast transactions)	No – the entity is not party to a contract. But could be if a hedge and highly probable

Initial Recognition

Both IAS 39 and IFRS 9 require that financial assets and liabilities be measured initially at their *Fair Value*.

This is normally the amount of the consideration given or received when the asset was acquired or the liability incurred.

FAIR VALUE MEASUREMENT– IFRS

13

Overview of Session 18 – Fair Value

- Objective of IFRS 13
- IASs and IFRSs impacted
- Definition of Fair Value
- Fair Value Framework
- Valuation techniques - Fair Value hierarchy
- Disclosures

Objective of IFRS 13

IFRS 13 defines fair value, provides principles-based guidance on how to measure fair value and requires information about those fair values to be disclosed.

IFRS 13 does not address which assets and liabilities to measure at fair value or when those measurements must be performed. An entity must look to other standards in that regard. **See attached file SM1**

IASs and IFRSs Impacted by IFRS 13

SM 1 IFRS Standards and Fair Value Implications

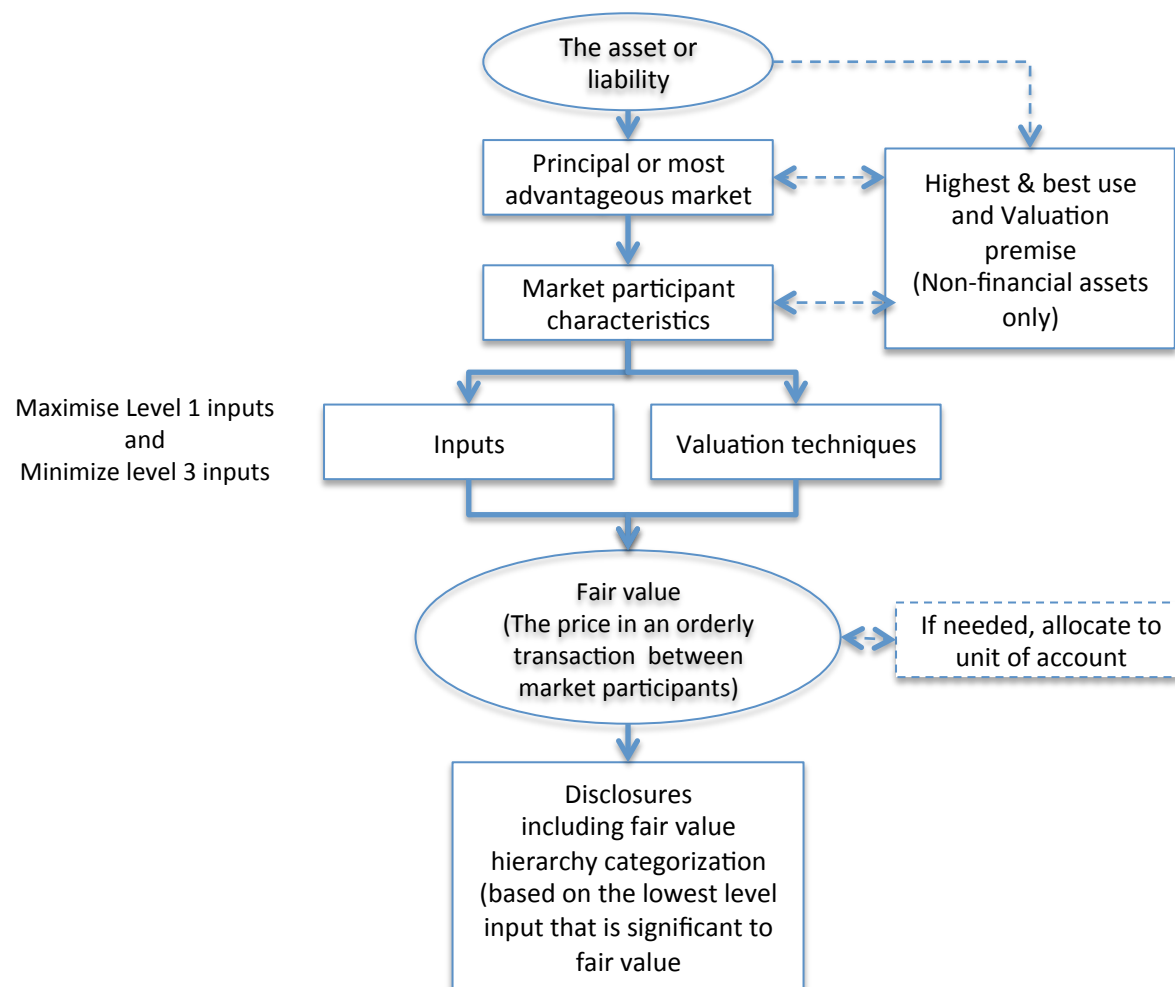


Worksheet

Definition of Fair Value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair Value measurement Framework - 1



Valuation techniques

Market approach

Based on market transactions involving identical or similar assets or liabilities

Income approach

Based on future amounts (e.g. cash flows or income and expenses) that are converted (discounted) to a single present amount

Cost approach

Based on the amount required to replace the service capacity of an asset (frequently referred to as current replacement cost)

Fair Value – IFRS 13

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants.

Fair value hierarchy:

Level 1 inputs: **quoted prices** in active markets for identical assets or liabilities

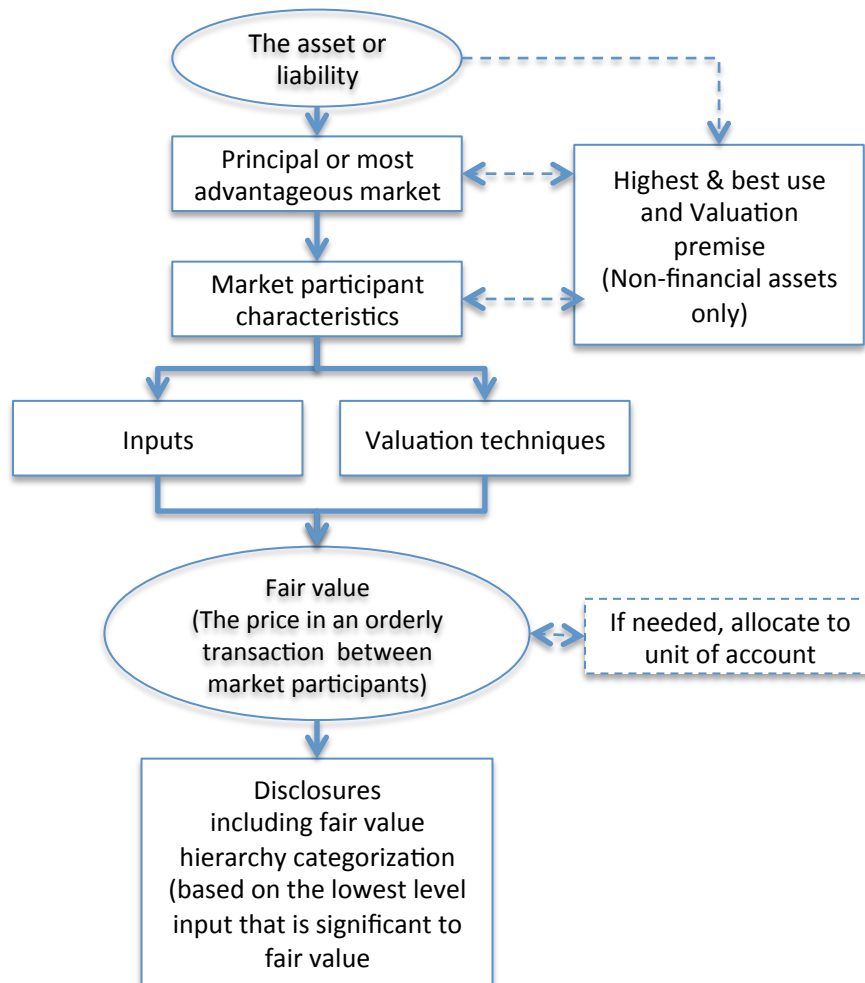
Level 2 inputs: inputs other than quoted prices included within level 1 **that are observable** for the asset or liability, either directly or indirectly e.g. quoted prices for similar assets or liabilities

Level 3 inputs: are **unobservable inputs** for the asset or liability. These should reflect assumptions that market participants would use when pricing an asset or liability, including assumptions about risk.

Fair value hierarchy

	Level 1	Level 2	Level 3
Definition (IFRS 13 Appendix A)	Quoted prices (unadjusted) in an active market for identical assets or liabilities that the entity can access at the measurement date.	Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly.	Unobservable inputs for the asset or liability.
Example	The price for a financial asset or financial liability for the identical asset is traded on an active market (e.g. London Stock Exchange)	Interest rate and yield curves observable at commonly quoted intervals, implied volatilities, and credit spreads.	Projected cash flows used in a discounted cash flow calculation.
		Price per square meter for a building derived from observed market data (comparable transactions)	Cash generating unit financial forecast developed using the entities own data.

Fair Value measurement Framework - 2



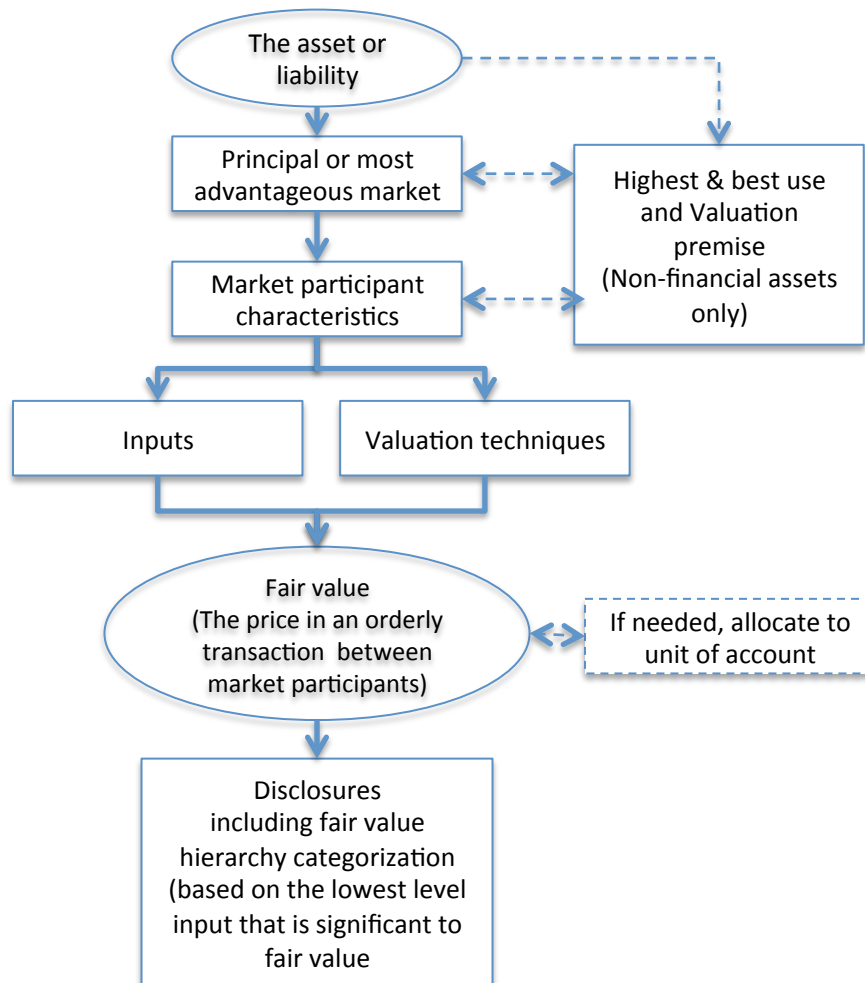
The asset or liability

A fair value measurement is for a particular asset or liability. Therefore, when measuring fair value an entity shall take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Such characteristics include, for example, the following:

- The condition and location of the asset; and
- Restrictions, if any, on the sale or use of the asset

Could be a stand-alone or group of assets or liabilities or both.

Fair Value measurement Framework - 3



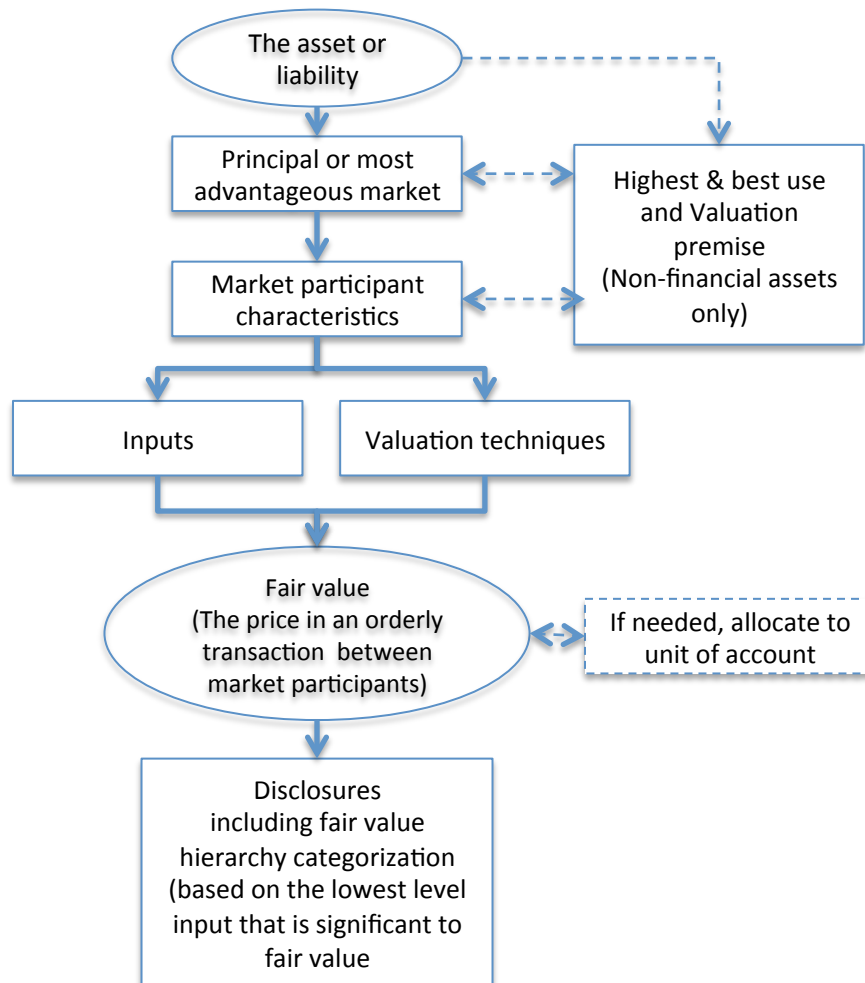
The Transaction

A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions.

A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

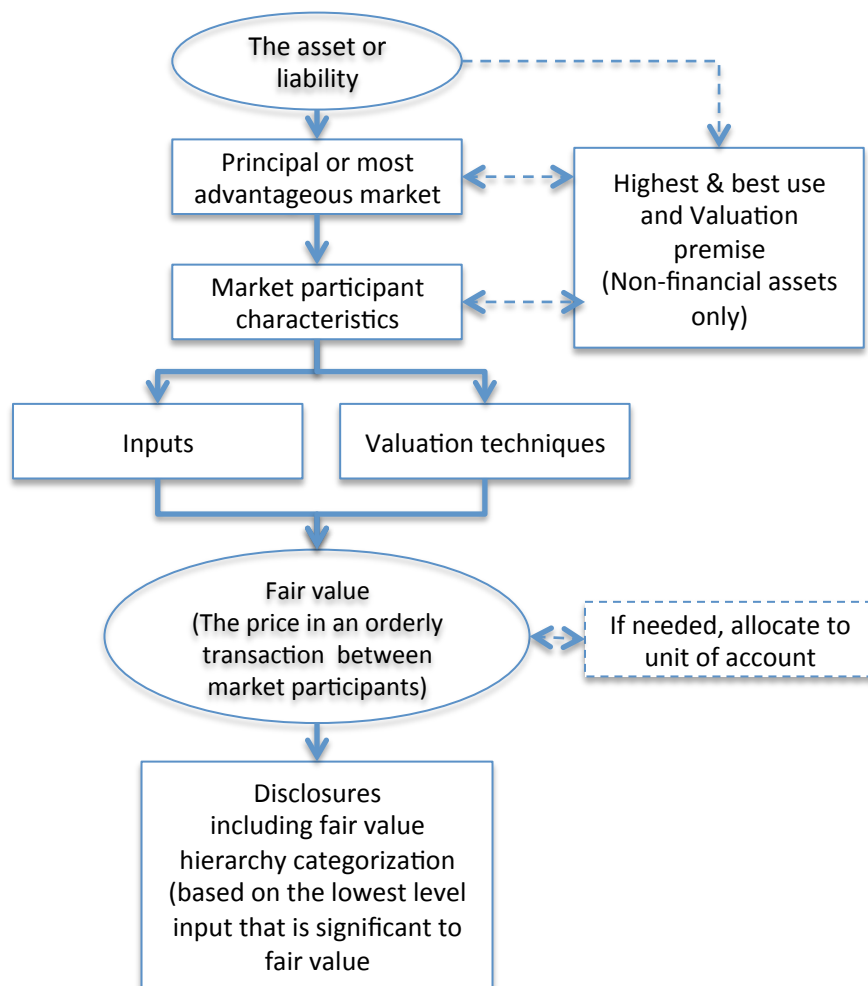
Fair Value measurement Framework – 4



Market Participants

An entity shall measure the fair value of an asset or a liability using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

Fair Value measurement Framework - 5

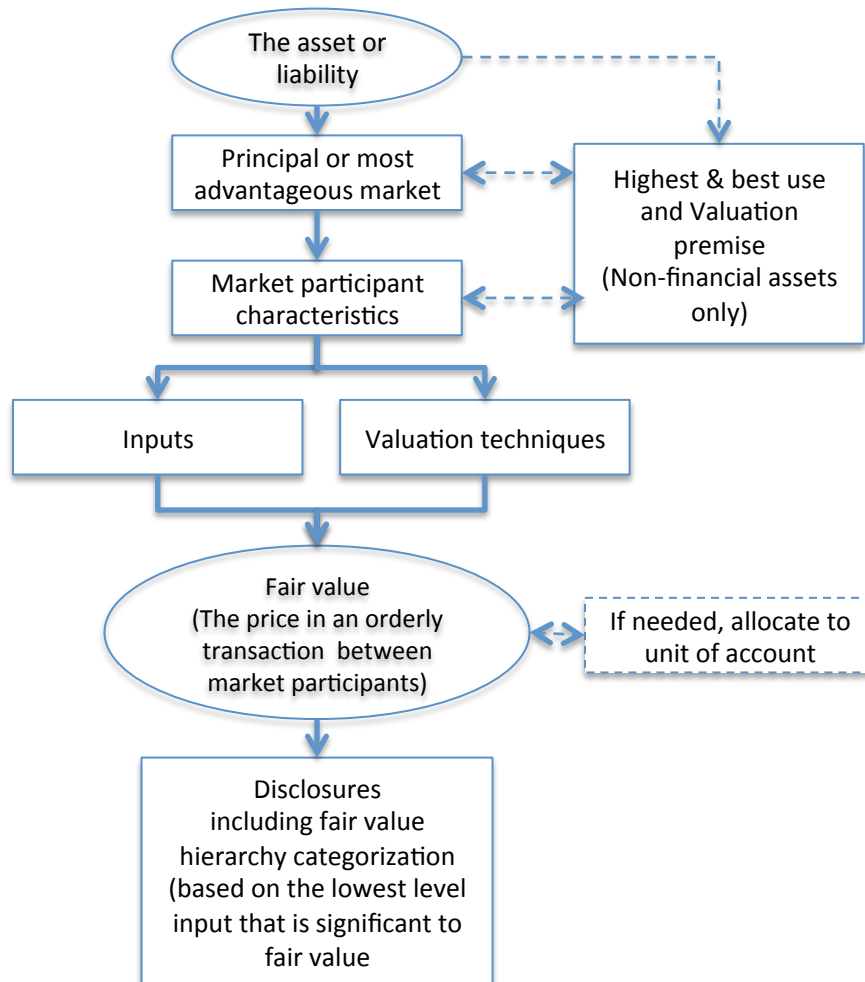


The Price

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

Maximise Level 1 inputs
and
Minimize level 3 inputs

Fair Value measurement Framework - 6



Application to Non-financial assets

Highest and best use

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use. Current use may not be the highest and best use of a non-financial asset. For example, market participants may maximize the use of land, currently used as a site for a manufacturing facility, for residential housing instead.

Disclosures

SM 2

Note 21 Financial instruments continued

Fair value measurement

The following table presents the Group's financial assets and liabilities that are measured at fair value at 23 February 2013, by level of fair value hierarchy:

- quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2); and
- inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

At 23 February 2013	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Assets				
Available-for-sale financial assets	808	150	–	958
Derivative financial instruments:				
Interest rate swaps and similar instruments	–	130	–	130
Cross currency swaps	–	1,129	–	1,129
Index-linked swaps	–	707	–	707
Forward foreign currency contracts	–	57	–	57
Total assets	808	2,173	–	2,981

Liabilities				
Derivative financial instruments:				
Interest rate swaps and similar instruments	–	(185)	–	(185)
Cross currency swaps	–	(79)	–	(79)
Index-linked swaps	–	(539)	–	(539)
Forward foreign currency contracts	–	(77)	–	(77)
Total liabilities	–	(880)	–	(880)
Total	808	1,293	–	2,101

At 25 February 2012	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Assets				
Available-for-sale financial assets	542	760	–	1,302
Derivative financial instruments:				
Interest rate swaps and similar instruments	–	99	–	99
Cross currency swaps	–	1,054	–	1,054
Index-linked swaps	–	569	–	569
Forward foreign currency contracts	–	45	–	45
Total assets	542	2,527	–	3,069

Liabilities				
Derivative financial instruments:				
Interest rate swaps and similar instruments	–	(201)	–	(201)
Cross currency swaps	–	(54)	–	(54)
Index-linked swaps	–	(468)	–	(468)
Forward foreign currency contracts	–	(90)	–	(90)
Future purchases of non-controlling interests	–	–	(3)	(3)
Total liabilities	–	(813)	(3)	(816)
Total	542	1,714	(3)	2,253

The following table presents the changes in Level 3 instruments for the year ending 23 February 2013:

	2013 £m	2012 £m
At beginning of the year	(3)	(106)
Gains/(losses) recognised in finance costs in the Group Income Statement	–	33
Gains/(losses) recognised in the Group Statement of Changes in Equity	–	(3)
Purchase of non-controlling interests	3	73
At end of the year	–	(3)

During the financial year, £431m (2012: £nil) of Level 2 assets were transferred to Level 1 due to improved valuation systems, and there were no transfers into or out of Level 3 fair value measurements. At the start of the year the Group had a liability (classified as Level 3) relating to the future purchase of the minority shareholding of its subsidiary blinkbox entertainment limited. This option was exercised during the year.

FINANCIAL INSTRUMENTS - CLASSIFICATION AND MEASUREMENT

Classification – IAS 39

For natural offsets and to avoid “accounting mismatch”

Assets

Financial <i>assets</i> at fair value through Profit and loss (FVPL)		Held-to-maturity investments (HTM) <i>(those with fixed and determinable payments and fixed maturity and intention and ability to hold to maturity)</i>
Held for trading	Designated OIR* (FV Option)	
Available-for-sale financial assets (AFS) <i>(those designated as such or not classified in any other category)</i>		Loans and receivables (L&R) <i>(those with fixed and determinable payments that are not quoted in an active market and do not qualify as trading assets)</i>

Liabilities

Financial <i>liabilities</i> at fair value through Profit and loss (FVPL)		Other financial liabilities (OFL) <i>(not explicitly defined but are those that are not held for trading or designated as such)</i>
Held for trading	Designated OIR* (FV Option)	

* On Initial Recognition

Subsequent measurement IAS 39

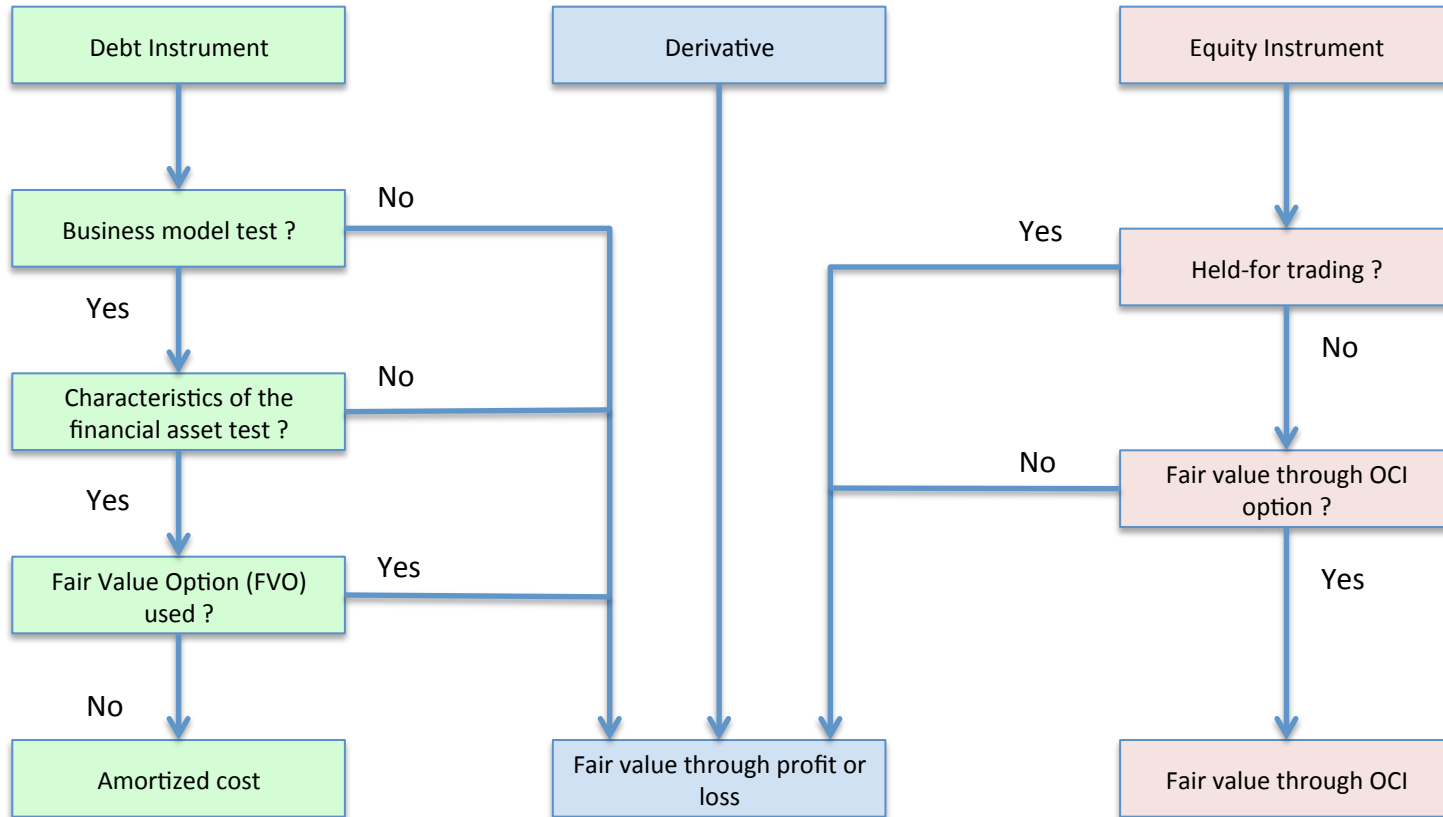
Classification	Instrument	Balance Sheet	FV Gains/Losses	Interest/dividend income	Impairment
Fair Value Profit & Loss (FVP&L)	Debt, Equity, derivative*	Fair value	Profit or loss	Profit or loss	Profit or loss
	Equity not reliably measurable	Cost		Profit or loss: dividends	Profit or loss
Held To Maturity (HTM)	Debt	Amortized cost		Profit or loss: Effective interest rate	Profit or loss
Loans & Receivables (L&R)	Debt	Amortized cost		Profit or loss: Effective interest rate	Profit or loss
Available For Sale (AFS)	Debt	Fair value	Other comprehensive income	Profit or loss: Effective interest rate	Profit or loss
	Equity	Fair value	Other comprehensive income	Profit or loss: dividends	Profit or loss
	Equity not reliably measurable	Cost		Profit or loss: dividends	Profit or loss
Other Financial Liabilities (OFL)	Debt	Amortized cost		Profit or loss: Effective interest rate	

* Not designated in effective hedging relationships

Subsequent measurement

Assets	Trading	Non-trading/AFS	Held to Maturity (HTM)
Equity Instrument	FVP&L	FVOCI	
Debt Instrument	FVP&L	FVOCI	Amortised Cost using EIR
Liabilities	Trading	Non-trading (OFL)	
Financial Liabilities	FVP&L	FVOCI	Amortised Cost using EIR
Derivatives	FV Hedge	Cash Flow Hedge	Net Investment
	P&L	OCI	OCI

Classification - IFRS 9



Subsequent measurement

IFRS 9

Classification	Instrument	Balance Sheet	FV Gains/Losses	Interest/dividend income	Impairment
Fair Value through Profit & Loss (FVP&L)	Debt, Equity, derivative	Fair value	Profit or loss	Profit or loss	
Equity investments at FVOCI	Equity	Fair Value	Other comprehensive income	Profit or loss: Dividends receivable	
Debt Financial assets at FVOCI	Debt	Fair Value	Other comprehensive income	Profit or loss: Effective interest rate	Profit or loss
Financial assets and liabilities at amortised cost	Debt	Amortised cost		Profit or loss: Effective interest rate	Profit or loss (assets)

FINANCIAL ASSETS

Financial assets

- Equity shares
 - Quoted/Listed companies
 - Privately held companies
- Debt Securities/Bonds/Obligations/Debentures
- Loans and receivables (including trade accounts receivable)
- Derivatives – **Session 19**

Investments in Equity shares

% Ownership	Definition	Accounting	
> 50 %	Subsidiary	Only relevant in parent company only financial statements as this would be eliminated on consolidation	Will be covered in Session 22
20 – 50%	Equity investee or Associated company	Accounted for using the equity method i.e. one line	
< 20%	Listed securities	Accounting depends on the purpose for holding <ul style="list-style-type: none"> • Trading • Non-trading (AFS)* 	Trading: Fair value through profit and loss (FVPL) Non-trading: Fair value through (FVOCI) <i>(Unless impaired i.e. significant and prolonged decline in value)</i>
	Unlisted securities	Cost and tested for impairment	

* Available for Sale (AFS)

Investments in Debt Securities

Intention	Accounting		Requirements
Trading	Fair value through profit and loss account (FVPL)		
Held to maturity (HTM)	Amortized cost using the Effective Interest Rate method		Intention and ability to hold to maturity
Available for sale (AFS)	Fair value through other comprehensive income (FVOCI)		

INITIAL MEASUREMENT – FAIR VALUE

Initial measurement – Fair value example

Company A lends €1,000 to Company B for 5 years and classifies the resulting asset within loans and receivables. The loan carries no interest, and instead, A expects (or possibly contracts) to receive other future economic benefits, such as the right to receive goods and services at favorable prices or an implicit right to exert influence over the activities of B.

On initial recognition, the market rate of interest for a similar 5 year loan with payment of interest at maturity is 10% per year. The initial **fair value** of the loan is the present value of the future payment of €1,000, discounted using the market rate of interest for a similar loan of 10% for 5 years. This equates to €621.

The difference of €379 is recorded as an expense.

$$1,000 / (1.10)^5 = 620.9$$

Future Value/Present Value

**Market
Interest rate**

10%

**Future Value at
10% Interest**

**Present Value
at 0% Interest**

Comparison of the value today and the value in 5 years time of a 5 year loan of CU 1,000 at 0% interest and at 10% interest

P0	1,000	621
P1	100	62
	1,100	683
P2	110	68
	1,210	751
P3	121	75
	1,331	827
P4	133	83
	1,464	909
P5	146	91
	1,611	1,000

Formulae

$1,000 * (1.10)^5$

$\frac{1,000}{(1.10)^5}$

INITIAL MEASUREMENT – AMORTISED COST

Amortized cost and the Effective interest rate method

Amortized cost: of a financial instrument is defined as the amount at which it was measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the “*effective interest rate method*” of any difference between that initial amount and the maturity amount, and minus any write-down for impairment or uncollectability.

Effective interest rate method: is a method of calculating the amortized cost of a financial instrument and of allocating the interest income or expense over the relevant period. The *effective interest rate* is the rate that exactly discounts estimated future cash payments or receipts over the expected life of the instrument or , when appropriate, a shorter period, to the instrument’s net carrying amount.

Debt instrument at amortized cost

Example

On 1 January 2013 a company buys £100,000 of 6% loan stock for £93,930. Interest is received on December 31 each year. The loan is redeemable at par on 31 December 2017.

Debt instrument at amortized cost

On 1 January 2013 a company buys £100,000 of 6% loan stock for £93,930. Interest is received on December 31 each year. The loan is redeemable at par on 31 December 2017.

Step 1 Calculate the Effective Interest Rate

Cash Flows				Present Value Proof
Jan-01	2013	-93,930		
Dec-31	2013	6,000	/1.075	5,581
Dec-31	2014	6,000	/1.075 ²	5,192
Dec-31	2015	6,000	/1.075 ³	4,830
Dec-31	2016	6,000	/1.075 ⁴	4,493
Dec-31	2017	106,000	/1.075 ⁵	73,835
				<hr/> 93,931
IRR		7.50%		

Source: Alan Melville: International Financial Reporting

N.B. You can use Excel to calculate the IRR

Debt instrument at amortized cost

On 1 January 2013 a company buys £100,000 of 6% loan stock for £93,930. Interest is received on December 31 each year. The loan is redeemable at par on 31 December 2017.

Step 1 Calculate the **Effective Interest Rate**

Cash Flows				Present Value Proof
Jan-01	2013	-93,930		
Dec-31	2013	6,000	$/1.075$	5,581
Dec-31	2014	6,000	$/(1.075)^2$	5,192
Dec-31	2015	6,000	$/(1.075)^3$	4,830
Dec-31	2016	6,000	$/(1.075)^4$	4,493
Dec-31	2017	106,000	$/(1.075)^5$	73,835
				<hr/> 93,931
IRR		7.50%		

Step 2 Calculate the **Amortized Cost**

	Opening Balance	Interest @ 7.50%	Interest Received	Amortised Cost
2013	93,930	7,045	-6,000	94,975
2014	94,975	7,123	-6,000	96,098
2015	96,098	7,207	-6,000	97,305
2016	97,305	7,298	-6,000	98,603
2017	98,603	7,397	-106,000	0

Source: Alan Melville: International Financial Reporting

N.B. You can use Excel to calculate the IRR

Debt instrument at amortized cost - example

Amortized cost, Effective interest rate method Fixed interest, fixed term instruments

At the end of 2013 a company purchases a debt instrument with five years remaining to maturity for its fair value of US\$ 1,000 (including transaction costs). The instrument has a principal amount of US\$ 1,250 and carries fixed interest of 4.7% payable annually (US\$ 1,250 x 4.7% = US\$ 59 per year). In order to allocate interest receipts and the initial discount over the terms of the instrument at a constant rate on the carrying amount, it can be shown that the interest needs to be accrued at the rate of 10% annually. The table below provides information about the amortized cost, interest income and cash flows of the debt instrument in each reporting period.

Nominal amount US \$ 1.250
Interest rate 4,70%

IRR

-1000

59 2014

59 2015

59 2016

59 2017

1.309 2018

10,0%

(a)	(b = a x 10%)	(c)	(d = a + b - c)
Amortized cost at start of year US\$	Interest income US\$	Cash Flows US\$	Amortized cost at end of year US\$
1.000	100	59	1.041
1.041	104	59	1.087
1.087	109	59	1.137
1.137	114	59	1.191
1.191	119	1.309 (1,250+59)	0

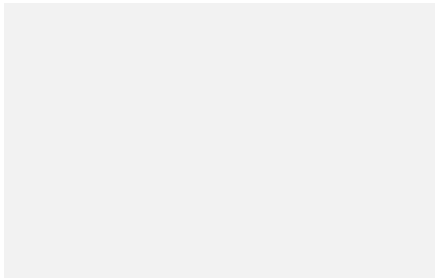
INITIAL MEASUREMENT - AVAILABLE FOR SALE

Debt instrument Available for sale

Available for sale asset

A company acquires a zero coupon bond at the end of 2013 for £760, its fair value, which matures at the beginning of 2017 at £1,000. It is classified as an available-for-sale asset and, accordingly, associated fair value gains and losses are recognized in other comprehensive income. Its fair value at the end of 2014, 2015 and 2016 is £850, £950, and £1,000 respectively and it can be determined that the effective interest rate is 9.6%.

Determine the amounts to be included in the financial statements



Debt instrument Available for sale

Available for sale asset

A company acquires a zero coupon bond at the end of 2013 for £760, its fair value, which matures at the beginning of 2017 at £1,000. It is classified as an available-for-sale asset and, accordingly, associated fair value gains and losses are recognized in other comprehensive income. Its fair value at the end of 2014, 2015 and 2016 is £850, £950, and £1,000 respectively and it can be determined that the effective interest rate is 9.6%.

The financial statements would include the accounting entries set out in the table. (amortized cost is memorandum information used to determine interest).

IRR	Amortized cost at start of year		Interest income Profit and Loss		Gains and losses - other comprehensive income		Cash flow	Fair Value B/Sheet
-760	2013							760
0	2014	760	73	(=760 x 9.6%)	17	(= 850 - (760 + 73))		850
0	2015	833 (=760 + 73)	80	(=833 x 9.6%)	20	(= 950 - (850 + 80))		950
1000	2016	913 (=833 + 80)	87	(=913 x 9.6%)	-37	(= 1000 - (950 + 87))		1000
	2017	1000 (=913 + 87)					1000	
9.6%								

ACCOUNTS RECEIVABLE

Accounts Receivable

- Accounts receivable
 - Foreign currencies
- Valuation/allowances
 - Financial discounts
 - Returns
 - Bad debts
- Discounting
- Factoring/sale of receivables (with/without recourse)
- Credit Risk Disclosures

Trade accounts receivable

Definition – *Trade accounts receivable* are amounts invoiced to and due from customers for goods and services provided.

They are covered by the definition of a financial instrument and should be recorded at their fair value which is normally the amount at which they are initially recorded (unless extended credit terms have been granted in which case they should be discounted) less any impairment allowances.

Unconditional receivables and payables are recognized as assets or liabilities when an entity becomes party to the contract and, as a consequence, has a legal right to receive or a legal obligation to pay cash. (IAS 39 AG35(a), IFRS 9 B3.1.2(a))

Loans and receivables are measured at amortized cost using the effective interest rate method and are subject to review for impairment (IAS 39.46,56)

Fair Value - discounting

Future value

If I have €100 today and the interest rate is 7% then in one years time this will be worth €107 i.e.. $(100 + (100 \times 7/100))$

If I have €100 today and the interest rate is 7% then in two years time this will be worth €114.49. i.e. $100 + ((100 \times 7)^2 / 100)$

Present value

Conversely if I will receive €100 in one years time and the interest rate is 7% then this will be worth only €93.45 today i.e. $(100 / (100 \times 7/100))$.

If I will receive €100 in two years time and the interest rate is 7% the this will be worth only €87.34 today i.e. $100 / ((100 \times 7)^2 / 100)$

In practice, because of materiality, this is generally only done for extended payment terms beyond 12 months.

Sale of goods in foreign currency - Example

- On September 30, 20X0 a European company preparing its accounts in Euros, sells 50,000 units of product X to a customer in the USA at \$10 each i.e. \$500,000.
- The exchange rate at the time of the transaction is $\text{€}1 = \$1.2$
- At year end, December 31, the balance is still outstanding, the year end exchange rate is $1.3 \text{ €}1 = \$1.3$

Sale of goods in foreign currency

- a) On September 30, 20X0 the company sells 50,000 units of product X to a customer in the USA at \$10 each i.e. \$500,000.
- b) It records this transaction in € at the exchange rate at the time of the transaction i.e. 1.2 or €416,666.67.
- c) At year end, December 31, the balance is still outstanding therefore the company restates the asset at the year end rate i.e. 1.3 or €384,615.38.
- d) The loss of €32,051.28 is debited to the income statement.

Accounts receivable	
416.666,67	32.051,38

Sales	
	416,666.67

Exchange Differences (I/S)	
	32.051,38

How could the company have avoided this loss?

	\$		€
Sept 30	500.000,00	1,20	416.666,67
Dec 31	500.000,00	1,30	384.615,38
			32.051,28

ALLOWANCES

Allowances

- Cash discounts
- Returns
- Doubtful accounts

Cash Discounts - Example

A Company makes a sale for €50,000 payment for which is due in 30 days but with a 2% discount if payment is made within 15 days.

How should the company account for this transaction?

Cash discounts

Sale for €50,000 due in 30 days but with 2% discount for payment within 15 days

Either

Or

Record with the discount			
Accounts receivable		Sales	
49.000	49.000		49.000
Cash			
49.000			
If then customer pays after 15 days			
Accounts receivable		Sales	
49.000	49.000		49.000
Cash		Financial revenue	
50.000			1.000

Record without discount			
Accounts receivable		Sales	
50.000	50.000		50.000
Cash			
50.000			
If customer pays within 15 days			
Accounts receivable		Sales	
50.000	50.000	1.000	50.000
Cash			
49.000			

Returns - Example

Assume a company makes a credit sale for €50,000 of goods with a cost of €30,000.

The company then agrees to accept the return of goods which it sold for €10,000

How should the company account for this transaction?

Returns

Normally returns should be estimated at the time of sale if the company has a history of accepting returns.

Depending on the reason for the returns, and the condition of the returned products, the item should be returned to inventory and valued at the lower of cost and net realizable value.

Assume a company makes a credit sale for €50,000 of goods with a cost of 30,000.

The company then agrees to accept the return of goods which it sold for €10,000

Accounts receivable	
50.000	10.000

Sales	
10.000	50.000

Inventory	
6.000	30.000

COGS	
30.000	6.000

Doubtful accounts - Example

Doubtful accounts

	\$m 2012	\$m 2011
Not overdue	8.584	8.967
Past due for not more than one month	552	498
Past due for more than one month but less than three months	321	295
Past due for more than three months but less than six months	301	249
Past due for more than six months but less than one year	205	228
Past due for more than one year	305	305
	<u>10,268</u>	<u>10.542</u>

How would you calculate the company's allowance for doubtful accounts receivables?

Allowance for doubtful accounts receivable

Doubtful accounts

Novartis

	\$m 2012	\$m 2011
Not overdue	8.584	8.967
Past due for not more than one month	552	498
Past due for more than one month but less than three months	321	295
Past due for more than three months but less than six months	301	249
Past due for more than six months but less than one year	205	228
Past due for more than one year	305	305
Provisions for doubtful trade receivables	-217	-219
	<u>10.051</u>	<u>10.323</u>

Estimates of the required allowance is normally based on an ageing of trade accounts receivable and taking into account any credit insurance that the company might have. The company may calculate a specific and/or generic allowance.

Accounting for bad debts

In January XX a Company with a calendar year end has €50,000 of accounts receivable outstanding and has estimated that one customer with a balance of €2,500 more likely than not will not be able to pay due to financial difficulties.

In September the company is declared bankrupt and the liquidator announces that there will be no amounts available to pay unsecured creditors.

How should the Company account for this?

Accounting for bad debts

Step 1

Record the estimated provision for doubtful accounts

Accounts receivable	Allowance for doubtful accounts
50,000	2,500
Sales	Bad debt expense
50,000	2,500

Step 2

Write-off bad-debts against the provision when certain

Accounts receivable	Allowance for doubtful accounts
50,000	2,500

2,500	2,500

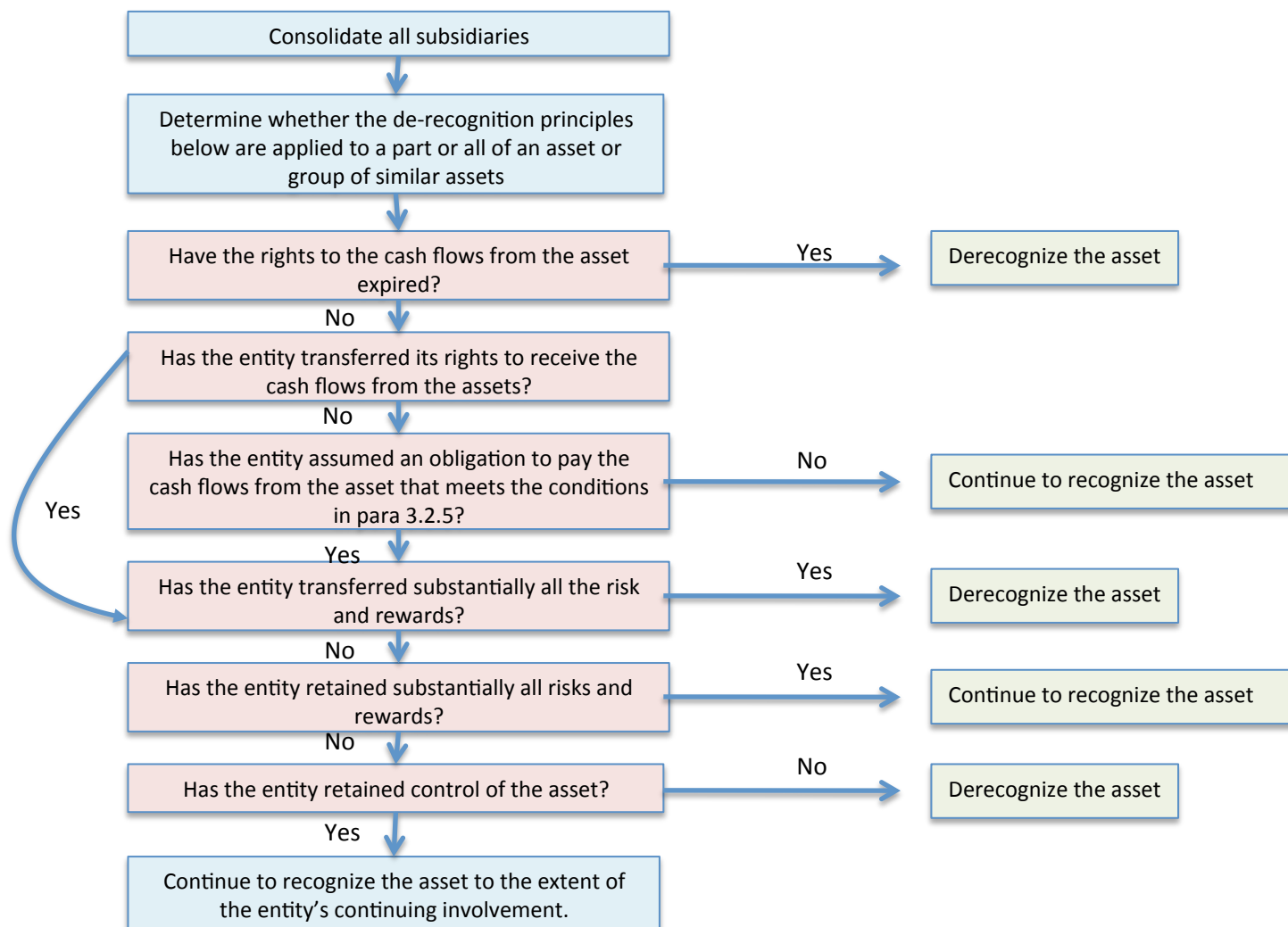
FACTORING AND SALE OF RECEIVABLES

Factoring and sale of receivables

Should cash received for a transfer or sale of an asset be recognized as a sale or a liability?

The de-recognition rules of IAS 39 (IFRS 9) are based on the premise that if a transfer of an asset leaves the transferor's economic exposure to the transferred asset much as if the transfer had never taken place, the financial statements should represent that the transferor still holds the asset.

Derecognition flow chart



Factoring

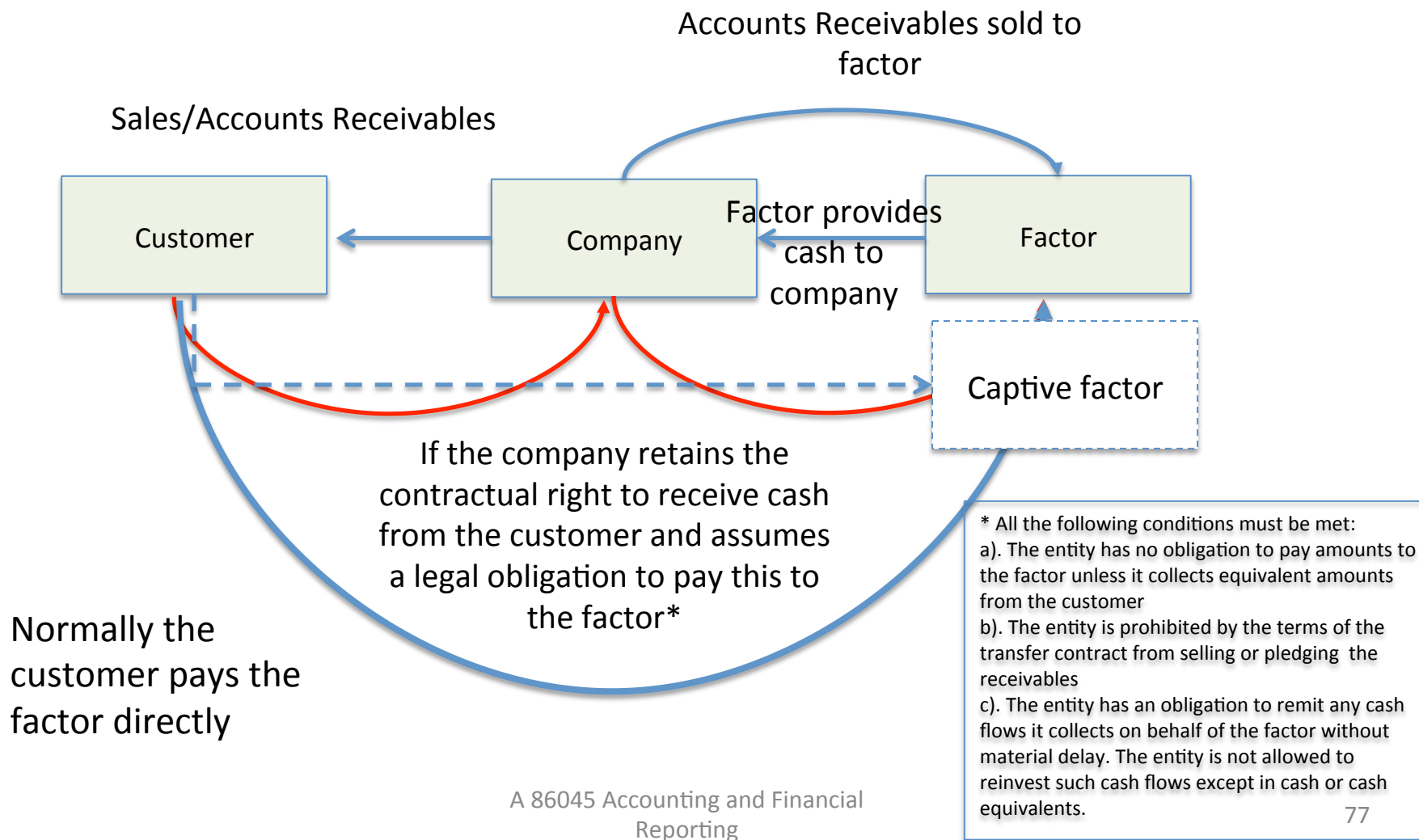
With recourse

- The factor acquires the trade accounts receivable but the company is liable for any credit losses and must reimburse the factor for these.
- Trade receivables should not be derecognized and the proceeds should be considered as a liability or loan.

Without recourse

- The factor acquires the trade accounts receivable and assumes all the collection risk.
- Trade accounts receivable are derecognized and the proceeds are considered as cash.

Factoring: pass-through test



CREDIT RISK DISCLOSURES

Credit Risk Disclosures

Qualitative disclosures

- a) The exposures and how they arise
- b) Its objectives, policies and processes for managing risk and the methods used to measure the risk; and
- c) Any changes in (a) or (b) from the previous period

Quantative disclosures

- Concentration of credit risk
- Maximum exposure to credit risk
- Analysis of the age of financial assets that are past due but not impaired
- Financial assets individually determined to be impaired

LVMH Disclosures 2015

11. TRADE ACCOUNTS RECEIVABLE

<i>(EUR millions)</i>	2015	2014	2013
Trade accounts receivable, nominal amount	2,820	2,546	2,416
Provision for impairment	[64]	[66]	[67]
Provision for product returns ^[a]	[235]	[206]	[175]
Net amount	2,521	2,274	2,174

[a] See Note 1.25.

Provisions for product returns

Perfumes and Cosmetics and, to a lesser extent, Fashion and Leather Goods and Watches and Jewelry companies may accept the return of unsold or outdated products from their customers and distributors.

Where this practice is applied, revenue and the corresponding trade receivables are reduced by the estimated amount of such returns, and a corresponding entry is made to inventories. The estimated rate of returns is based on statistics of historical returns.

LVMH Disclosures 2015 Cont'd

The change in trade accounts receivable for the fiscal years presented breaks down as follows:

<i>(EUR millions)</i>	2015			2014	2013
	Gross	Impairment	Net	Net	Net
As of January 1	2,546	(272)	2,274	2,174	1,972
Changes in gross receivables	46	-	46	30	291
Changes in provision for impairment	-	-	-	(5)	(4)
Changes in provision for product returns	-	(20)	(20)	(25)	(1)
Changes in the scope of consolidation	142	(1)	141	5	50
Translation adjustment	96	(8)	88	62	(136)
Reclassifications	(10)	2	(8)	33	2
As of December 31	2,820	(299)	2,521	2,274	2,174

The trade accounts receivable balance is comprised primarily of receivables from wholesalers or agents, who are limited in number and with whom the Group maintains ongoing relationships for the most part. As of December 31, 2015, coverage of customer credit risk had been requested from insurers for the majority of trade receivables, approximately 88% of the amount of which was granted, versus 90% at December 31, 2014.

As of December 31, 2015, the breakdown of the nominal amount of trade receivables and of impairment by age was as follows:

<i>(EUR millions)</i>		Nominal amount of receivables	Impairment	Net amount of receivables
Not due:	- less than 3 months	2,229	(16)	2,213
	- more than 3 months	295	(4)	291
		2,524	(20)	2,504
Overdue:	- less than 3 months	181	(7)	174
	- more than 3 months	115	(37)	78
		296	(44)	252
Total		2,820	(64)	2,756

For each of the fiscal years presented, no single customer represented revenue exceeding 10% of the Group's consolidated revenue.

There is no difference between the present value of trade accounts receivable and their carrying amount.

SOURCES OF FINANCE

Financing

Contractual
obligation
to deliver
cash

Debt



Equity

No contractual
obligation to
deliver cash

Debt Instruments/
Borrowings

Compound
Financial
Instruments

Equity

Bank Loans
Corporate Bonds
Obligations

Convertible bonds
Redeemable Preference
Shares

Equity shares
Preference shares
Treasury shares

Finance Leases

Liabilities are remunerated by interest which is a charge in the profit and loss account. Rank over owners in a winding up. Generally tax deductible.

Equity creates an ownership interest remunerated by dividends which are a distribution of retained profit not a charge in arriving at profit. Not tax deductible.

FINANCIAL LIABILITIES (DEBT/ BORROWINGS)

Simple Bank Loan

On January 1, 20X0, a company obtains a € 1 million loan from its bank repayable in 5 years time with a fixed interest rate of 6% per annum.

Simple Bank Loan

On January 1, 20X0, a company obtains a € 1 million loan from its bank repayable in 5 years time with a fixed interest rate of 6% per annum.

Cash	
Yr0	1.000.000
	60.000 Yr 1
	60.000 Yr 2
	60.000 Yr3
	60.000 Yr4
	60.000 Yr5
	1.000.000 Yr5

Bank Loan	
Yr5	1.000.000
	1.000.000 Yr0

Interest Expense	
Yr 1	60.000
Yr 2	60.000
Yr3	60.000
Yr4	60.000
Yr5	60.000

Yr 0	1.000.000
Yr1	-60.000
Yr2	-60.000
Yr3	-60.000
Yr4	-60.000
Yr5	-1.060.000
IRR	6%

Simple Bank Loan-Risks

Same example as before but assume now that the market interest rate changes and increases to 8%.

Simple Bank Loan-Risks

Same example as before but assume now that the market interest rate changes and increases to 8%.

	Borrower 8%	Lender 8%	Lender 6%	Borrower 6%
NPV	73,939	-73,939	-0	0
Yr0	1,000,000	-1,000,000	-1,000,000	1,000,000
Yr1	-60,000	60,000	60,000	-60,000
Yr2	-60,000	60,000	60,000	-60,000
Yr3	-60,000	60,000	60,000	-60,000
Yr4	-60,000	60,000	60,000	-60,000
Yr5	-1,060,000	1,060,000	1,060,000	-1,060,000

As a consequence of the rate change the **Fair Value (NPV) of the loan has fallen** from 1,000,000 to 926,061 resulting in a loss for the lender and a gain for the borrower.

Loan with annual repayments

On January 1, 2008, a company obtains a € 1 million loan from its bank repayable in 3 equal annual installments with a fixed interest rate of 5 % per annum.

Date	Outstanding Capital	Interest 5%	Loan Repayment	Payments
2008	1.000.000	50.000	317.209	367.209
2009	682.791	34.140	333.069	367.209
2010	349.722	17.486	349.722	367.209
	0		1.000.000	

Formula

$$a = V_0 \times \frac{r}{1 - (1+r)^{-n}}$$

V_0 = Borrowed amount
 r = Interest rate
 n = number of periods

$$a = 1,000,000 \times \frac{0.05}{1 - (1 + 0.05)^{-3}} = \text{€ } 367,208$$

Bond with a Premium and Issuance Expenses

On January 1, 2008, a company issues 1,000 Bonds. The Bonds are issued at a price of €950 for a nominal value of €1,000 and with a fixed interest rate of 6%. They are reimbursable on December 31, 2011. Issuing fees, for an amount of €47,000 have been deducted from the proceeds of the offering.

Bond with a Premium and Issuance Expenses

On January 1, 2008, a company issues 1,000 Bonds. The Bonds are issued at a price of €950 for a nominal value of €1,000 and with a fixed interest rate of 6%. They are reimbursable on December 31, 2011. Issuing fees, for an amount of €47,000 have been deducted from the proceeds of the offering.

Yr0	903.000
Yr1	-60.000
Yr2	-60.000
Yr3	-60.000
Yr4	-1.060.000
IRR	8,99%

Bond example – cont'd

Date	Effective Interest 9%	Interest Paid 6%	Amortization	Amortized Cost
2008				903.000
2008	81.213	60.000	21.213	924.213
2009	83.121	60.000	23.121	947.333
2010	85.200	60.000	25.200	972.534
2011	87.466	60.000	27.466	1.000.000

EQUITY FINANCE

Equity Finance

Definition: *An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all its liabilities.*

An instrument is an equity instrument if, and only if, both conditions (a) and (b) below are met.

- a) The instrument includes no contractual obligation:
 - i. To deliver cash or another financial asset to another entity; or
 - ii. To exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the issuer.
- b) If the instrument will or may be settled in the issuer's own equity instruments, it is:
 - i. A non-derivative that includes no contractual obligation from the issuer to deliver a variable number of its own equity instruments; or
 - ii. A derivative that will be settled only by the issuer exchanging a fixed amount of cash or another financial asset for a number of its own equity instrument. For this purpose, rights, options or warrants to acquire a fixed number of the entities own equity instruments for a fixed amount of any currency are equity instruments if the entity offers the rights, options or warrants pro rata to all of its existing owners of the same class of its own non-derivative equity instruments.

Equity increases

Share Capital can be **increased** by:

- Cash contributions by existing or new owners
- Non-cash contributions
- Conversion of retained earnings
- Conversion of convertible bonds

Share Capital can be **decreased** by:

- Acquisition of own shares (Treasury shares)
- Capital reduction (Normally court approval required)
- Absorption of losses

Equity Instruments

Put = Sell
Call = Buy

Non-puttable ordinary shares

A puttable financial instrument includes a contractual obligation to repurchase or redeem that instrument for cash or another financial asset on exercise of the put.

Some puttable ordinary shares

Exception if it has all of five features set out in the standard

Some instruments that impose on the entity an obligation to deliver to another party a pro rata share of the net assets of the entity on liquidation.

See the three conditions in the standard

Some types of preference shares

A preference share that provides for mandatory redemption by the issuer for a fixed or determinable amount at a fixed or determinable future date, or gives the holder the right to require the issuer to redeem the instrument at or after a particular date for a fixed or determinable amount, is a financial liability.

Warrants or written call options that allow the holder to subscribe for or purchase a fixed number of non-puttable ordinary shares

COMPOUND FINANCIAL INSTRUMENTS – IAS 32

Compound Financial Instruments

An entity recognizes separately the components of a financial instrument that:

- a) Creates a financial liability of the entity and;
- b) Grants an option to the holder of the instrument to convert it into an equity instrument of the entity.

1. Determine
FV of the
liability
component

1. Financial liability

2. Equity
instrument e.g.
call option

2. FV of the
whole
instrument*
less FV of
liability
component

Convertible Bond

(Right, for a specified time, to convert into a fixed number of ordinary shares of the issuer)

* Normally the consideration received when issued

Compound Financial Instruments - Example

On 1 January 2017, a company issues £200,000 of 7% loan stock at par. Interest on this loan stock is payable on 31 December each year. The stock is due for redemption at par on 31 December 2020 but may be converted into ordinary shares on that date instead.

Required

Calculate the fair value of the liability component and the equity component of this loan stock, assuming a discounting rate of 9% per annum (which is the rate of interest that would be expected on comparable loan stocks without the conversion option).

Solution

Compound Financial Instruments - Solution

Ignoring the conversion option, the company will pay interest of £14,000 on 31 December 2017, 2018, 2019 and 2020 and will then make a £200,000 repayment of the loan stock on 31 December 2020. Using a discounting rate of 9%, the present value of these cash flows may be calculated as follows:

	Workings	Present Value
Payment due 31 December 2015	$£14,000 / 1.09$	12,844
Payment due 31 December 2016	$£14,000 / (1.09)^2$	11,784
Payment due 31 December 2017	$£14,000 / (1.09)^3$	10,811
Payment due 31 December 2018	$£214,000 / (1.09)^4$	<u>151,603</u>
		187,042

This shows that the present value on 1 January 2015 of the right to receive £14,000 on 31 December for each of the next three years, followed by £214,000 at the end of the fourth year is £187,042. This is the fair value of the liability component of the loan stock.

The lenders are paying £200,000 to buy this stock and this exceeds the fair value of the liability component by £12,958. The extra £12,958 must be the price that the lenders are paying for the option to convert and this is the value of the equity component.

Source: Melville, Alan. *International Financial Reporting*, 6th Edition. Pearson (Intl), 20170629. VitalBook file.

DISCLOSURES RELATING TO FINANCIAL INSTRUMENTS

Disclosures relating to financial instruments

- IFRS 7 requires many detailed disclosures relating to financial instruments.
- The main purpose of these disclosures is to enable users to evaluate the significance of financial instruments for the entity's financial position and performance.
- Disclosures are also required which will enable users to evaluate the nature and extent of any risk related to financial instruments.

Disclosures - IFRS 7

- Carrying amounts
 - I. Financial assets at FVPL
 - II. Financial assets at FVOCI
 - III. Financial assets at amortized cost
 - IV. Financial liabilities at FVPL
 - V. Financial liabilities at amortized cost
- Allowance for credit losses
- Fair Value and FV hierarchy
- Items of income, expense, gain or loss
- Accounting Policies

If IAS 39 is applied (ii) and (iii) are replaced by:

- Held To Maturity investments (HTM),
- Loans & Receivables (L&R) and
- Available for Sale (AFS) investments

Session 19

- Hedge accounting
- Nature and extent of risks from financial instruments (Qualitative and quantitative) and sensitivity analysis: credit risk, liquidity risk, market risk

REQUIRED READING AND ASSIGNMENT FOR NEXT SESSION

Overview of Session 19

- Risk Management: Liquidity, Counterparty, Market (Price, interest rate, currency)
- Hedging (Fair Value, Cash Flow, Net Investment)
- Accounting and disclosures

Session 19 Pre-work

- Reading
 - Melville International Financial Reporting – A Practical Guide :
 - Chapter 11 – Financial Instruments
 - IASB Technical Summaries
 - IAS 32 Financial Instruments: Presentation
 - IAS 39 Financial Instruments: Recognition and Measurement
 - IFRS 7 Financial Instruments: Disclosures
 - IFRS 9 Financial Instruments
- Exercises
 - Melville Chapter 11.1 – 11.6
 - Melville multiple choice Chapter 11
 - EX 19 Financial Instruments
- Research Assignment
 - RA 14 Financial Instruments - Derivatives

SUMMARY AND VALIDATION

Overview of Session 18 – Financial Instruments

- Definitions and standards
- Classification and measurement (initial and subsequent)
- Financial assets
- Financial liabilities
- Equity instruments and compound financial instruments
- Disclosures

Session 18 Financial Instruments - Validation

- What is a financial instrument?
- How should financial instruments be recognized initially and subsequently?
- How do you calculate amortized cost?
- How is a compound financial instrument accounted for?
- What do FVPL and FVOCI stand for?

Overview of Session 18 – Fair Value

- Objective of IFRS 13
- IASs and IFRSs impacted
- Definition of Fair Value
- Fair Value Framework
- Valuation techniques - Fair Value hierarchy
- Disclosures

Session 18 Fair Value - Validation

- What does IFRS 13 address and what does it not address?
- Name the IAS/IFRSs that require/permit Fair Value measurement
- Define fair value
- Give an example of where Fair Value might be higher than value in current use
- Name the three valuation techniques
- What are the three levels in the Fair Value hierarchy?

Overview of Session 18 – Accounts Receivable

- Accounts receivable
 - Discounting
 - Foreign currencies
- Valuation/allowances
 - Financial discounts
 - Returns
 - Bad debts
- Factoring/sale of receivables (with/without recourse)
- Credit Risk Disclosures

Session 15 Accounts Receivable - Validation

- What are the accounting entries for product returns (B/S and I/S)?
- How do you calculate the allowance for doubtful accounts receivable?
- What exchange rate is used to value accounts receivable at year end?
- If payment terms are greater than twelve months what should the seller do?
- What are the two different types of factoring arrangement and what is the difference?