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MFRS Hot Topics

Financial instruments with payments based on profits of the issuer

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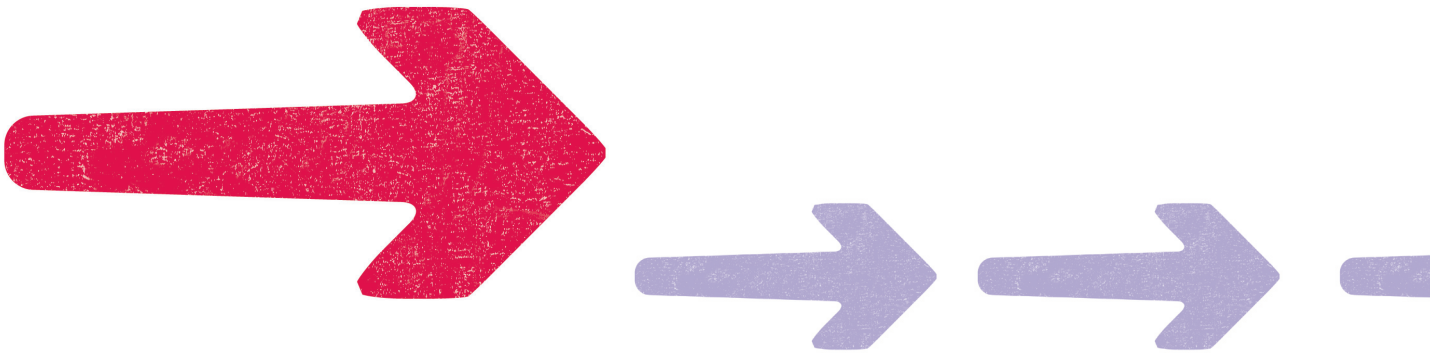
Welcome to MFRS Hot Topics - a publication from SJ Grant Thornton. This publication discusses how should financial instruments that include an obligation to pay dividends/interest linked to the profits of the issuer be classified and measured by the issuer.

Relevant MFRS

MFRS 132 Financial Instruments: Presentation

MFRS 139 Financial Instruments: Recognition and Measurement

Contents



Guidance

Classification

A contractual obligation to pay interest or dividends linked to profits of the issuer should be classified as a **liability** (rather than as equity) by the issuer.

Some instruments that include this type of obligation also include an **equity component**. The instrument is then a compound instrument. The equity component is determined as the difference between the fair value of the liability component (ie the obligatory payments) and the total fair value of the instrument (MFRS 132.32). The liability component is measured in accordance with the guidance below. The equity component is recorded with equity, with no subsequent re-measurement.

In some countries entities may be required under national legislation to pay a dividend equal to a certain percentage of their profits or a certain proportion of their share capital. Application of MFRS 132 in this situation requires the issuer to consider whether the statutory imposition is part of the contractual terms of the instrument, or should alternatively be viewed as a separate, non-contractual obligation that is outside MFRS 132's scope. This is a point of interpretation.

Measurement

On initial recognition, the instrument is recorded at its fair value. For instruments with no equity component that are issued to non-related parties, the initial fair value will usually equal the issue proceeds. If the instrument includes an equity component, it is necessary to estimate the liability component.

Subsequently, the instrument is recorded at **amortised cost using the effective interest method**. The effective interest method is applied using estimated cash flows. This in turn requires estimating the future profits on which the dividend/interest payments will be based. If profit projections subsequently change, the liability is reassessed to reflect the new estimate (MFRS 139.AG8). The re-assessment is based on present value of estimated future cash flows, discounted using the **original** effective interest rate. Changes in the amount of the liability resulting from a changes in estimated cash flows are recorded in profit or loss (MFRS 139.AG8). They are presented as an additional finance charge or credit.

Discussion

Classification

Financial instruments that include obligations to make payments linked to the profits of the issuer are common. An example of such an instrument is a bond or share that pays a fixed percentage of profits of the issuer each period. The terms of the instrument usually include a definition of 'profit' for this purpose. The instrument might be either fixed term or perpetual.

An obligation to pay interest or dividends linked to profits of the issuer is a contractual obligation to deliver cash. Such an obligation therefore meets the definition of a financial liability (MFRS 132.11(a)(i)). This is the case even if the issuer has not yet earned sufficient profits to pay any interest or dividend. MFRS 132 also makes clear that the ability of the issuer to influence its profits does not alter this classification (MFRS 132.AG26(f)). In other words, the profits of the issuer should not be regarded as within the control of the issuer.

Some instruments that include such an obligation also include an equity component. For example, the contractual arrangements might make clear that the obligatory payments are a minimum and that additional, discretionary dividends might be paid. Such a feature meets the definition of an equity component since:

- there is no obligation to deliver cash; and
- it represents an interest in the residual assets of the issuer, after deducting all of the liabilities (MFRS 132.11).

An equity component should be identified only if the discretionary feature has substance. It should not be presumed to exist (since, in theory, the issuer of **any** instrument could decide to make additional, discretionary payments).

Measurement

As with all financial instruments within the scope of MFRS 139, the liability should initially be recorded at its fair value (plus transaction costs for items not subsequently measured at fair value through profit or loss) (MFRS 139.43). Subsequently, the instrument is measured at amortised cost, using the effective interest method (MFRS 139.47). This assumes that the instrument is **not** designated at fair value through profit or loss.

The effective interest method involves:

- estimating the instrument's future cash flows;
- determining the interest rate that exactly discounts those cash flows to the instrument's carrying value (i.e .its fair value plus any transaction costs at inception This rate is termed **the effective interest rate (EIR).**
- determining periodic interest expense (or income) using the EIR (MFRS 139.9).

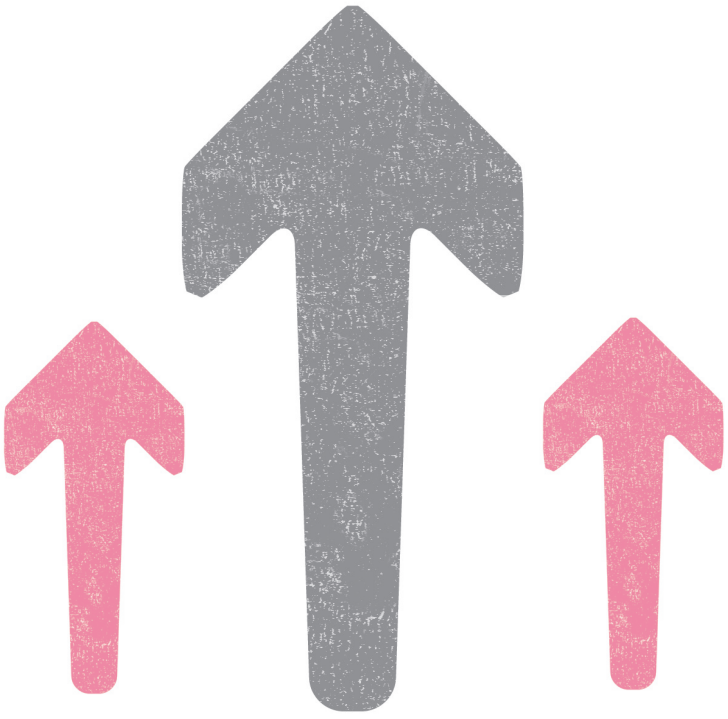
It is presumed that future cash flows can be estimated reliably. Clearly, with instruments whose cash flows are linked to future profits there will be a wide range of estimation uncertainty. However, a sufficiently reliable estimate should be possible in all but rare cases. Where these estimates are considered to be a key source of estimation uncertainty, the disclosures required by Paragraph 125 of MFRS 101 Presentation of Financial Statements should be given.

Because estimated cash flows in turn depend on projected profits of the issuer, these estimates will need to be revised regularly. MFRS 139.AG8 sets out that changes in estimated payments and receipts are dealt with as follows:

- the carrying amount of the instrument is adjusted based on the new estimate of payments and receipts;
- the EIR is **not** revised; and
- the effect of the adjustment is recorded in profit or loss.

As a consequence of applying these requirements, instruments with payments linked to profits are likely to give rise to income statement volatility.

An alternative approach to measuring these instruments is to treat the profit-linking feature as an embedded derivative. On this analysis, an instrument with an obligation to pay a fixed percentage of profits would be considered a fixed rate debt instrument with an embedded 'receive fixed, pay percentage of profits' interest swap. The fixed interest rate would be imputed such that the initial fair value of the non-option derivative is zero (based on MFRS 139. IG.C1). However, in our view, separating the instrument in this manner involves imputation of cash flows that are not implied by the contract. For this reason, this is not our preferred approach.



Example

Entity A issues a 10 year, fixed term instrument on 1 Jan 20X1 for CU1,000,000. The instrument pays a 'dividend' of 10% earnings before interest, tax, depreciation and amortisation (EBITDA) on 31 Dec each year, calculated by reference to EBITDA for that year. The instrument is repayable at CU1,000,000 on 31 Dec 20X0.

The instrument does not contain any equity component. The proceeds of CU1,000,000 are assumed to equal the fair value of the instrument on 1 Jan 20X1. Transaction costs are ignored.

Analysis

Entity A should first estimate the cash flows that will be required under the terms of this instrument. This will require estimating EBITDA over the 10 year term. The effective interest rate (EIR) is then determined as the rate that exactly discounts the future cash flows to the initial fair value. Entity A's estimates, and the resulting cash flows, are set out in the following table:

Year	Estimated EBITDA	Cash flows based on EBITDA at 10%	Proceeds and repayment	Total estimated cash flows
Jan 20X1			1,000,000	1,000,000
20X1	0	0	0	0
20X2	0	0	0	0
20X3	400,000	(40,000)	0	(40,000)
20X4	800,000	(80,000)	0	(80,000)
20X5	1,100,000	(110,000)	0	(110,000)
20X6	1,400,000	(140,000)	0	(140,000)
20X7	1,700,000	(170,000)	0	(170,000)
20X8	2,000,000	(200,000)	0	(200,000)
20X9	2,500,000	(250,000)	0	(250,000)
20Y0	2,500,000	(250,000)	(1,000,000)	(1,250,000)
EIR				**10. 007%**

This yields an EIR of 10.007%. If actual EBITDA and the resulting cash flows are exactly as estimated, the resulting interest charges are as set out in the following table:

Year	Opening liability (A)	Total cash flows (B)	Interest expense (at EIR of 10.007%) (C)	Closing liability (=A+B+C)
20X1	1,000,000	0	100,068	1,100,068
20X2	1,100,068	0	110,082	1,210,151
20X3	1,210,151	(40,000)	121,098	1,291,248
20X4	1,291,248	(80,000)	129,213	1,340,462
20X5	1,340,462	(110,000)	134,138	1,364,599
20X6	1,364,599	(140,000)	136,553	1,361,153
20X7	1,361,153	(170,000)	136,208	1,327,361
20X8	1,327,361	(200,000)	132,827	1,260,188
20X9	1,260,188	(250,000)	126,105	1,136,293
20Y0	1,136,293	(1,250,000)	113,707	0

The actual outcome will of course differ from the estimates. The estimates will also be revised regularly, as circumstances change. To illustrate this, assume that the original estimates remain valid in 20X1 and 20X2. However, in 20X3 Entity A earns EBITDA of CU500,000. At that point Entity A also revises its estimates of EBITDA in future years.

Year	Actual & estimated EBITDA	Cash flows based on EBITDA at 10%	Proceeds and repayment	Total actual & estimated cash flows	PV of estimated future cash flows at 10.007%
1 Jan 20X1			1,000,000	1,000,000	
20X1	0	0	0	0	
20X2	0	0	0	0	
20X3	500,000	(50,000)	0	(50,000)	(1,336,599)
20X4	900,000	(90,000)	0	(90,000)	
20X5	1,200,000	(120,000)	0	(120,000)	
20X6	1,500,000	(150,000)	0	(150,000)	
20X7	2,000,000	(200,000)	0	(200,000)	
20X8	2,000,000	(200,000)	0	(200,000)	
20X9	2,500,000	(250,000)	0	(250,000)	
20Y0	2,500,000	(250,000)	(1,000,000)	(1,250,000)	

When the estimates are revised, Entity A determines the present value (PV) of the newly estimated cash flows. PV is always determined using the original EIR. The table shows the actual EBITDA for 20X3 and the new projections (in the boxed part of the second column).

The new cash flow estimates result in a PV of CU1,336,599 at 31 Dec X3. The carrying amount of the liability must be adjusted to this amount. This adjustment is recorded in profit or loss. The interest charges are revised, again using the original EIR, such that the newly estimated carrying value is amortised to the amount repayable at maturity. This is illustrated in the following table, with the revised amounts shown in the boxed section:

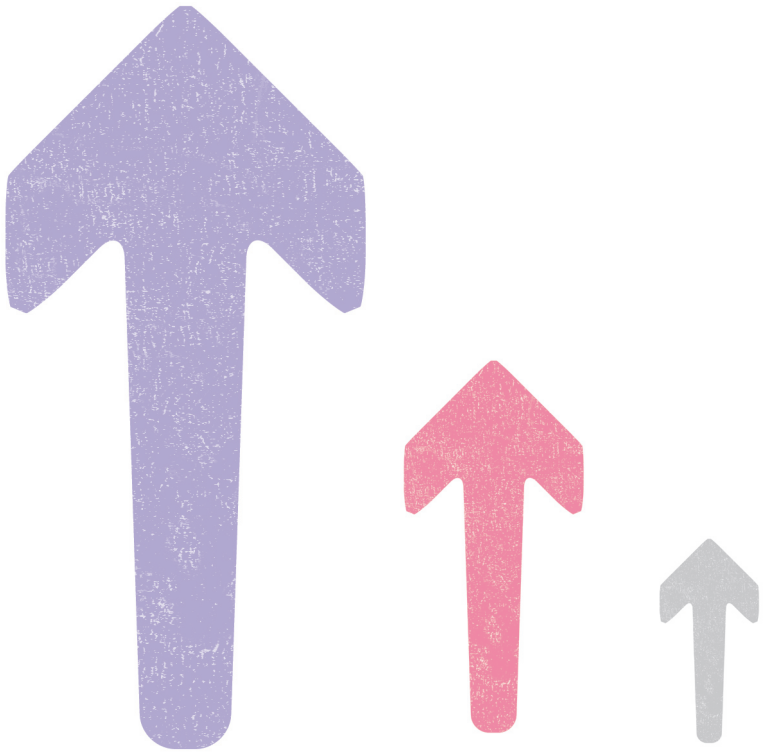
Year	Opening liability (A)	Cash flows (B)	Interest expense at (EIR) of 10.007%) (C)	Adjustment - recorded in P&L (D)	Closing liability (E=A+B+C+D)
		1,000,000			
20X1	1,000,000	0	100,068		1,100,068
20X2	1,100,068	0	110,082		1,210,151
20X3	1,210,151	(50,000)	121,098	55,351	1,336,599
20X4	1,336,599	(90,000)	133,751		1,380,351
20X5	1,380,351	(120,000)	138,130		1,398,480
20X6	1,398,480	(150,000)	139,944		1,388,424
20X7	1,388,424	(200,000)	138,937		1,327,361
20X8	1,327,361	(200,000)	132,827		1,260,188
20X9	1,260,188	(250,000)	126,105		1,136,293
20X0	1,136,293	(1,250,000)	113,707		0

The accounting entries recorded at 20X3 are as follows:

31 Dec 20X3	Debit	Credit
Cash (interest payment)		CU50,000
Interest expense	CU121,098	
Other finance charge	CU55,351	
Loan carrying amount		CU126,449

It should be noted that:

- the interest expense (excluding the adjustment) continues to equal the liability outstanding in the year multiplied by the original EIR, and does not equal the cash payment
- the liability amount at each reporting date equals the expected future cash flows discounted at the original EIR
- the adjustment arises each time actual cash flows differ from the forecast and/or each time the estimates are updated. In reality, an adjustment is therefore likely to arise every year.



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KUALA LUMPUR

Levels 11,15 & 8
Sheraton Imperial Court
Jalan Sultan Ismail
50250 Kuala Lumpur

T +603 2692 4022
F +603 2721 5229
E info@my.gt.com

PENANG

51-8-A,
Menara BHL Bank
Jalan Sultan Ahmad Shah
10500 Penang

T +604 228 7828
F +604 227 9828

JOHOR BAHRU

Unit 29-08, Level 29
Menara Landmark
12 Jalan Ngee Heng
80000 Johor Bahru, Johor

T +607 223 1848
F +607 224 9848

KUANTAN

A-105A, 1st Floor
Sri Dagangan, Jalan Tun Ismail
25000 Kuantan
Pahang

T +609 515 6124
F +609 515 6126

CAMBODIA

20th Floor, Canadia Tower
Monivong Boulevard
Phnom Penh
Cambodia

T +855 23 966 520
F +855 23 966 526
W www.grantthornton.com.kh

www.grantthornton.com.my