

Chapter 23

Earnings per Share

Reference: IAS 33

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1. Introduction

'Earnings per share' is essentially a ratio used in the financial analysis of a set of financial statements and therefore falls under the chapter on financial analysis as well. This ratio is, however, so useful and popular that the standard, IAS 33, had to be developed to control the method of calculation thereof. This standard sets out how to calculate:

- the numerator: earnings; and
 - the denominator: the number of shares
- for each class of equity share, (where each class has a varying right to receive dividends).

IAS 33 states that earnings per share must be calculated for all *ordinary* shares.

In summary, there are two main types of earnings per share:

- basic earnings per share
- diluted earnings per share.

2. Definitions (IAS 33)

An **ordinary share** is an equity instrument that is subordinate to all other classes of equity instruments.

3. Types of shareholders

3.1 Ordinary shareholders

Ordinary shareholders buy a share in a company to earn dividends, (when this payment is considered prudent) and for capital growth. These dividends fluctuate annually depending on profits and available cash reserves etc. As the terms 'ordinary' and 'preference' implies, the ordinary shareholders have fewer rights than the preference shareholders. By way of illustration, assume that a company with both preference and ordinary shareholders is liquidated: the preference shareholders will have their capital returned first and only if there are sufficient funds left over, will the ordinary shareholders have their capital paid out.

3.2 Preference shareholders

Preference shareholders have more rights than ordinary shareholders – as mentioned above. Not only do they have preference on liquidation, but they also have a fixed amount paid out each year in dividends (as opposed to ordinary shareholders whose dividends are at the discretion of the entity and are largely dependant on profits and available cash reserves). The rate of dividends paid out is based on the share's coupon rate (e.g. 10%). A shareholder owning 1 000 preference shares with a par value of C2 each and a coupon rate of 10% will expect dividends of C200 per year (C2 x 1 000 x 10%). The shareholder's rights to dividends depend on whether his shares were:

- cumulative; or
- non-cumulative.
-

Cumulative shares indicate that if a dividend was not paid out in a particular year, (perhaps due to insufficient funds), these arrear dividends must be paid out in the future to the holders of these shares when funds become available. No dividend may be paid out to ordinary shareholders until the arrear preference dividends have been paid. Non-cumulative shares are those where, if a dividend is not paid out in a year, these unpaid dividends need never be paid.

There is a further variation with regard to preference shares; the shares may be:

- redeemable; or
- non-redeemable.

Redemption of a share involves the company returning the capital invested by the shareholder to this shareholder at some stage in the future. This repayment could be set at a premium (profit to the shareholder) or at a discount (loss to the shareholder) and could be compulsory or at the discretion of the company or the shareholder. Shares that are redeemable (especially if the redemption is either compulsory or at the discretion of the shareholder) and/ or cumulative, may be classified fully or partly as a liability instead of as equity, in which case, part or all of the related dividends will be recognised as ‘finance charges’ in the statement of comprehensive income instead of as ‘dividends’ in the statement of changes in equity (see the chapters on share capital and financial instruments for more on this).

There is another variation related to preference shares: the shares may be termed:

- participating; or
- non-participating.

Most preference shares are non-participating, meaning that the shareholders do not participate in the profits except to the extent of a fixed dividend. In rare circumstances, however, a preference shareholder may have a right to share (participate) in a certain percentage of the profits in addition to their fixed preference dividend and will thus be termed a ‘participating preference shareholder’. This situation will be dealt with later on in this chapter.

As suggested already, some preference shares are recognised as liabilities rather than as equity and their dividends are recognised as finance charges instead of as dividends. In these instances, even if the dividend has not yet been declared as at the end of the reporting period, the dividend will be recognised as a finance charge.

For the purposes of this chapter, we will restrict our examples (with the exception of example 3) to non-cumulative, non-redeemable preference shares (thus pure equity shares) whose dividends are considered to be pure dividends (and not interest).

4. Basic earnings per share (IAS 33.9 - .29)

4.1 Overview

Basic earnings per share is calculated by dividing earnings attributable to the ordinary shareholders by the weighted average number of ordinary shares in issue during the year:

$$\frac{\text{Earnings}}{\text{Number of shares}}$$

In the event that the entity reports a loss instead of a profit, the earnings per share will simply be reported as a loss per share instead.

4.2 Basic earnings (the numerator) (IAS 33.12 - .18)

4.2.1 The basic calculation

In order to calculate the earnings attributable to the ordinary shareholders, one should start with the ‘profit for the period’ per the statement of comprehensive income and deduct the profits attributable to the preference shareholders.

	C
Profit (or loss) for the period	xxx
Less fixed preference dividends (based on the coupon rate)	(xxx)
Less share of profits belonging to participating preference shareholders	(xxx)
Earnings attributable to ordinary shareholders	xxx

Preference dividends are, in fact, not always deducted. Deciding whether or not to deduct the preference dividends depends on whether the shares are cumulative or non-cumulative. The following guidelines should be helpful when dealing with pure equity preference shares:

- in respect of *non-cumulative* preference shares, deduct only the preference dividends that are *declared* in respect of that period; and
- in respect of *cumulative* preference shares, deduct the total *required* preference dividends for the period (in accordance with the preference share's coupon rate), whether or not these dividends have been declared.

It should be borne in mind that where the preference shares are classified as a liability, their dividends would be wholly or partly treated as finance costs, in which case these dividends would have already been deducted in the calculation of 'net profit for the period': these must obviously not be deducted again when calculating 'earnings attributable to the ordinary shareholders'.

4.2.2 When there are only ordinary shares

If there are only ordinary shareholders, it stands to reason that the entire profit or loss of the company belongs to the ordinary shareholders (owners).

Example 1: ordinary shares only

A company has 10 000 ordinary shares in issue throughout 20X1. The company earns a profit after tax of C100 000.

Required:

Calculate the basic earnings per ordinary share.

Solution to example 1: ordinary shares only

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year (per the statement of comprehensive income)	100 000
Less fixed preference dividends	(0)
Less share of profits belonging to participating preference shareholders	(0)
Earnings attributable to ordinary shareholders	<u>100 000</u>

Calculation of the earnings per ordinary share:

$$\begin{aligned}
 &= \frac{\text{Earnings belonging to ordinary shareholders}}{\text{Number of ordinary shares}} \\
 &= \frac{100\,000}{10\,000} \\
 &= \text{C10 per ordinary share}
 \end{aligned}$$

4.2.3 When there are ordinary and preference shares

If there are both ordinary and preference shareholders, some of the profit for the year must be set aside for the preference shareholders' preference dividends.

Example 2: ordinary and non-participating preference shares

A company has 10 000 ordinary shares *and* 10 000 non-cumulative, non-redeemable 10% C2 preference shares in issue throughout 20X1.

The company earns a profit after tax of C100 000.

The company declared the full 20X1 dividends owing to the preference shareholders.

Required:

Calculate the basic earnings per ordinary share.

Solution to example 2: ordinary and non-participating preference shares

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less fixed preference dividends (10 000 x C2 x 10%) declared	(2 000)
Less share of profits belonging to participating preference shareholders	<u>(0)</u>
Earnings attributable to ordinary shareholders	<u><u>98 000</u></u>

Calculation of the earnings per ordinary share:

$$= \frac{\text{Earnings belonging to ordinary shareholders}}{\text{Number of ordinary shares}}$$

$$= \frac{98\,000}{10\,000}$$

$$= \text{C9,80 per ordinary share}$$

Example 3: preference shares and preference dividends – equity versus liability

A company has 10 000 ordinary shares *and* 10 000 10% C2 preference shares in issue throughout 20X2. The profit after tax was C100 000 in 20X2.

Required:

Calculate the basic earnings in 20X2, assuming that the preference shares are:

- A) non-cumulative and non-redeemable (i.e. equity) and the dividend is declared.
- B) non-cumulative and non-redeemable (i.e. equity) and the dividend is not declared.
- C) cumulative and redeemable (i.e. liability) and the dividend is declared.
- D) cumulative and redeemable (i.e. liability) and the dividend is not declared.

Solution to example 3A: preference shares (equity) and declared dividends

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less preference dividends: 10 000 x C2 x 10%	<u>(2 000)</u>
Earnings attributable to ordinary shareholders	<u><u>98 000</u></u>

Comment: Please note that dividends declared to equity shareholders are shown in the statement of changes in equity (as a distribution to equity participants). Therefore, where preference shares are treated as equity, the preference dividends will be deducted from retained earnings in the statement of changes in equity and must therefore be deducted from the profit or loss for the period (per the statement of comprehensive income) to determine how much profit belongs to the ordinary shareholders.

Solution to example 3B: preference shares (equity) and dividend not declared

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less preference dividends: not declared	<u>(0)</u>
Earnings attributable to ordinary shareholders	<u><u>100 000</u></u>

Comment: If there is no obligation to pay the dividend (i.e. the preference dividend is both non-cumulative and not declared) the dividend will not be recognised in the financial statements at all. No adjustment is made to the profit for the period: all the profit belongs to the ordinary shareholders.

Solution to example 3C: preference shares (liability) and declared dividends

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less preference dividends: see comment below	<u>(0)</u>
Earnings attributable to ordinary shareholders	<u>100 000</u>

Comment: Preference shares that are cumulative and redeemable are treated as liabilities. The dividends on these preference shares are therefore recognised as interest using the effective interest rate method. This dividend has therefore already been deducted in calculating the profit for the period of C100 000.

Solution to example 3D: preference shares (liability) and arrear dividends

<i>Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less preference dividends: see comment below	<u>(0)</u>
Earnings attributable to ordinary shareholders	<u>100 000</u>

Comment: Preference shares that are cumulative and redeemable are treated as liabilities. The dividends on these preference shares are therefore recognised as interest using the effective interest rate method, irrespective of whether or not the dividend has been formally declared. This dividend has therefore already been deducted in calculating the profit for the period of C100 000.

In the event that there are participating preference shares in issue during the year, there would effectively be two equity share types in issue. This means that the profits, after paying preference shareholders their fixed dividend, need to be shared between two different types of shareholders. The portion of the net profit for the year that belongs to a participating preference shareholder may be divided into two parts:

- a fixed component (based on the coupon rate – 10% in the previous examples); and
- a variable component (dependant on the proportion in which the preference shareholder shares in profits with the ordinary shareholder).

Example 4: ordinary and participating preference shares

A company has 10 000 ordinary shares and 10 000 *participating* non-cumulative, non-redeemable 10% C2 preference shares in issue throughout 20X1. The company earns a profit after tax of C100 000.

The company declared the full 20X1 dividends owing to the preference shareholders. The preference shares participate to the extent of $\frac{1}{4}$ of the dividends declared to ordinary shareholders. The total ordinary dividend declared for 20X1 was C4 000. Ignore tax.

Required:

Calculate the basic earnings per share to be disclosed as well as the total dividend belonging to the participating preference shareholders and the total variable dividends in 20X1.

Solution to example 4: ordinary and participating preference shares

<i>W1: Calculation of earnings attributable to ordinary shareholders:</i>	C
Profit (or loss) for the year	100 000
Less preference dividends (fixed) declared ($10\,000 \times C2 \times 10\%$)	<u>(2 000)</u>
Earnings to be shared	98 000
Less earnings attributable to participating preference shareholders (<i>see W2</i>)	<u>(19 600)</u>
Earnings attributable to ordinary shareholders	<u>78 400</u>

W2: Calculation of earnings attributable to participating preference shareholders: C

Earnings attributable to ordinary and participating preference shares	98 000
- portion belonging to ordinary shareholders ($\frac{4}{5} \times 98\,000$: see W3)	78 400
- portion belonging to participating preference shareholders ($\frac{1}{5} \times 98\,000$: see W3)	19 600

W3: Calculation of the ratio in which to share earnings:

The ratio in which the earnings is to be shared ($\frac{4}{5}$ and $\frac{1}{5}$) between the two equity share types is calculated as follows:

Let X = the portion of the earnings belonging to the ordinary shareholders
Then $\frac{1}{4} X$ = the portion of the earnings belonging to the participating preference shareholders

And therefore:

$$X + \frac{1}{4} X = \text{total earnings to be shared}$$

$$X + \frac{1}{4} X = 98\,000$$

$$\frac{5}{4} X = 98\,000$$

$$X = 98\,000 \times \frac{4}{5}$$

$$X = 78\,400 \text{ (share belonging to ordinary shareholders)}$$

Therefore:

$$\frac{1}{4} X = \frac{1}{4} \times 78\,400 = 19\,600 \text{ (share belonging to participating preference shares)}$$

please note that the C19 600 may also be calculated as $98\,000 \times \frac{1}{5}$ or

$$98\,000 - 78\,400 = 19\,600$$

W4: Calculation of the earnings per ordinary share:

$$\begin{aligned} & \frac{\text{Earnings belonging to ordinary shareholders}}{\text{Number of ordinary shares}} \\ = & \frac{78\,400}{10\,000} \\ = & \text{C}7.84 \text{ per ordinary share} \end{aligned}$$

W5: Calculation of the earnings per participating preference share:

$$\begin{aligned} & \frac{\text{Earnings belonging to participating preference shareholders}}{\text{Number of participating preference shares}} \\ = & \frac{2\,000 + 19\,600}{10\,000} \\ = & \text{C}2.16 \text{ per participating preference share} \end{aligned}$$

Please note that the *earnings* belonging to the participating preference shareholder are made up of both the fixed component (dividend based on the coupon rate: $10\,000 \times \text{C}2 \times 10\%$) and the variable component (share of the 'after preference dividend profits': 19 600 (W2)).

Also note that, as with the total earnings to be shared, the participating preference shareholders participate in $\frac{1}{5}$ of the 'total variable' dividends declared:

W6: Calculation of total dividends belonging to preference shareholders: C

Fixed dividend ($10\,000 \times \text{C}2 \times 10\%$)	2 000
Variable dividend ($\text{C}4\,000 \times \frac{1}{4}$)	1 000
Total dividend belonging to the participating preference shareholder	3 000

W7: Calculation of total variable dividends:

	C
Variable dividend declared to ordinary shareholders (<i>given</i>)	4 000
Variable dividend to participating preference shareholders ($C4\,000 \times \frac{1}{4}$ or $C5\,000 \times \frac{1}{5}$)	1 000
Total variable dividends declared	5 000

4.3 Basic number of shares (the denominator) (IAS 33.19 - .29 and .64)

4.3.1 Overview

In the event that there was no movement of shares during the year, (i.e. the balance of shares at the beginning of the year equals the balance of shares at year-end, say 10 000), then the denominator in the earnings per share calculation is simply 10 000 shares.

If, however, there was movement in the number of shares during the year, then the number of shares to be used in the calculation will need to be adjusted or weighted. The movement could entail an increase (issue of shares) or a decrease in the number of shares.

There are three distinct types of issues that may have taken place during the year:

- issue for value (e.g. shares issued at their market price);
- issue for no value (e.g. shares given away); and
- combination issue (e.g. shares issued at less than their market value).

Decreases in the number of shares could come in the form of:

- share buy-backs (a for-value reduction); and
- share consolidations (a not-for-value reduction).

Each of these types of movements will now be dealt with separately.

4.3.2 Issue for value (IAS 33.19 - .23)

4.3.2.1 Issues at the beginning of the current year

When shares are issued for value, it means that there is no free (bonus) element in the share issue: the shares are sold at their full market value. Since such an issue raises extra capital for the entity, there is every chance that the increased capital has caused an increase in profits. Since the increase in the denominator (shares) is expected to lead to a similar increase in the numerator (earnings), the number of shares needs no adjustment.

Example 5: issue for value at the beginning of the year

A company has 10 000 ordinary shares in issue during the previous year. There was a share issue of 10 000 ordinary shares at market price on the *first* day of the current year. The earnings in the previous year were C20 000, and thus the earnings per share in the previous year were C2 per share (C20 000/ 10 000 shares).

Required:

Assuming absolutely no change in circumstances since the previous year, explain what the user would expect the profits and earnings per share to be in the current year.

Solution to example 5: issue for value at the beginning of the year

Since the capital base doubled, the user would expect the profits to double too. Assume that the profits in the current year did, in fact, double to C40 000. This would then mean that the earnings per share would remain comparable at C2 per ordinary share (C40 000/ 20 000 shares).

Number of shares	Actual	Current year (weighted)	Prior year (adjusted)
Opening balance	10 000	⁽¹⁾ 10 000	10 000
Issue for value	10 000	⁽²⁾ 10 000	0
	<u>20 000</u>	<u>20 000</u>	<u>10 000</u>

⁽¹⁾ Opening balance: 10 000 shares for 12 months (10 000 x 12/12) 10 000

⁽²⁾ New shares issued: 10 000 shares for 12 months (10 000 x 12/12) 10 000

Earnings per share:

<u>Earnings</u>	=	<u>C40 000</u>	<u>C20 000</u>
Number of shares		20 000	10 000
	=	C2 per share	C2 per share

The earnings per share for the current year would then remain comparable at C2 per ordinary share.

4.3.2.2 Issues during or at the end of the current year

When a company issues shares on a day other than at the beginning of the year, it must be remembered that the earnings potential of the entity will only increase in the period after the proceeds from the share issue have been received. In order to ensure that the earnings per share in the current year is comparable to that of the previous year, the number of shares is weighted based on time. This weighting should ideally be performed based on the 'number of days since the share issue' as a proportion of the 'total number of days in the period' (i.e. usually 365) although months may also be used where this gives a reasonable estimation.

Example 6: issue for value at the end of the year

A company had 10 000 ordinary shares in issue during the previous year. There was a share issue of 10 000 ordinary shares at market price on the *last* day of the current year. The earnings in the previous year were C20 000, and thus the earnings per share in the previous year were C2 per share (C20 000/ 10 000 shares).

Required:

Assuming absolutely no change in circumstances since the previous year, explain what the user would expect the profits and the earnings per share to be in the current year.

Solution to example 6: issue for value at the end of the year

Although the capital base doubled in the current year, the user would not expect the current year's profits to double since the extra capital was only received on the last day of the current year with the result that this would not yet have had an effect on the entity's earning potential.

Assume, therefore, that the profits in the current year remained constant at C20 000 (i.e. equal to the prior year). Unless the number of shares (in the earnings per share calculation) is adjusted, the current year's earnings per share would indicate that the efficiency of earnings *halved* to C1 per share during the year (C20 000/ 20 000 shares), despite the reality that the company still earned C2 for every one of the 10 000 shares in issue during the year.

Therefore, in order to ensure the comparability of the earnings per share calculation, the number of shares in the current year should be weighted as follows:

Number of shares	Actual	Current year (weighted)	Prior year (adjusted)
Opening balance	10 000	⁽¹⁾ 10 000	10 000
Issue for value	10 000	⁽²⁾ 0	0
	<u>20 000</u>	<u>10 000</u>	<u>10 000</u>

- ⁽¹⁾ Opening balance: 10 000 shares for 12 months (10 000 x 12/12) 10 000
⁽²⁾ New shares issued: 10 000 shares for 0 months (10 000 x 0/12) 0

Earnings per share:

<u>Earnings</u>	=	<u>C20 000</u>	<u>C20 000</u>
Number of shares	=	10 000	10 000
	=	C2 per share	C2 per share

The earnings per share for the current year would then remain comparable at C2 per ordinary share.

Example 7: issue for value during the year

A company had 10 000 ordinary shares in issue during the previous year. There was a share issue of 10 000 ordinary shares (at market price) 60 days before the end of the current year. Assume that the earnings in the previous year were C20 000, and thus the earnings per share in the previous year were C2 per share (C20 000/ 10 000 shares).

Required:

Assuming absolutely no change in circumstances since the previous year, explain what the user would expect the profits and the earnings per share to be in the current year.

Solution to example 7: issue for value during the year

Although the capital base has doubled, the user would not expect the *annual* profits to double since the extra capital was only received 60 days before the end of the year with the result that this extra injection of capital would only have had an effect on the profits earned during the last 60 days of the period. The shareholder could only reasonably expect the earnings in the last 60 days to double. He would thus hope that the earnings for the current year totals C23 288 (C20 000 + C20 000 x 60/365).

Assume that the profits in the current year did total the C23 288 that the shareholders hoped for. Unless an adjustment is made to the earnings per share calculation, the current year's earnings per share would indicate that the efficiency of earnings decreased during the year (C23 288/ 20 000 shares) to 116,44c per share, despite the reality that the company earned C2 for every one share in issue during the period, as was achieved in the previous year.

In order to ensure the comparability of the earnings per share calculation, the number of shares in the current year should be weighted as follows:

Number of shares	Actual	Current year (weighted)	Prior year (adjusted)
Opening balance	10 000	⁽¹⁾ 10 000	10 000
Issue for value	10 000	⁽²⁾ 1 644	0
	<u>20 000</u>	<u>11 644</u>	<u>10 000</u>

- ⁽¹⁾ Opening balance: 10 000 shares for 365 days (10 000 x 365/365) 10 000
⁽²⁾ New shares issued: 10 000 shares for 60 days (10 000 x 60/365) 1 644

Earnings per share:

<u>Earnings</u>	=	<u>C23 288</u>	<u>C20 000</u>
Number of shares	=	11 644	10 000
	=	C2 per share	C2 per share

The earnings per share for the current year would then remain comparable at C2 per ordinary share.

4.3.3 Issue for no value (IAS 33.26 - .28 and .64)

Issues for no value involve an entity effectively giving away shares. Examples of this include capitalisation issues (bonus issues or stock dividends) and share splits. Capitalisation issues frequently occur when a company has a shortage of cash with the result that shares are issued instead of paying cash dividends to the shareholders.

Since there has been no increase in capital resources (there is no cash injection), an increase in profits cannot be expected. If the earnings in the current year are the same as the earnings in the prior year and there is an increase in the number of shares in this current year, the earnings per share in the current year will, when compared with the earnings per share in the prior year, indicate deterioration in the efficiency of earnings relative to the available capital resources. Comparability would thus be jeopardised unless an adjustment is made.

The adjustment made for an 'issue for no value' is made to the *prior* year, (note: an 'issue for value' is adjusted for in the *current* year). This adjustment has the effect that it appears that the shares issued in the current year had already been in issue in the prior year.

Example 8: issue for no value

A company had 10 000 ordinary shares in issue during the previous year. There was a capitalisation issue of 10 000 ordinary shares *during the current year*. The earnings in the previous year were C20 000, and thus the earnings per share in the previous year were C2/share (C20 000/ 10 000 shares).

Required:

Assuming absolutely no change in circumstances since the previous year, explain what the user would expect the profits and the earnings per share to be in the current year.

Solution to example 8: issue for no value

Although the capital base doubled in the current year, the resources available to the entity remained the same and thus the user could not reasonably expect an increase in profits. By way of explanation:

Assume that the profits in the current year did, in fact, remain constant at C20 000. Without an adjustment to the earnings per share calculation, the earnings per share in the current year would appear to halve, indicating to the user that the entity was in financial difficulty. The reality, of course, is that the profitability has neither improved nor deteriorated since the previous year and thus the earnings per share should reflect this stability.

The need for comparability between the earnings per share for the current year and the prior year requires that the number of shares be adjusted. This is done by making an adjustment to the prior year's number of shares in such a way that it seems as if the share issue took place in the prior year. This obviously means that the prior year's earnings per share has to be restated: the fact that the prior year's earnings per share figure has been changed (restated) must be made quite clear in the notes.

The earnings per share in the current year will be disclosed at C1 (C20 000/ 20 000 shares) and the earnings per share in all prior periods presented will be *restated*: the prior period will be disclosed at C1 (C20 000/ 20 000 shares).

Please note that the adjustment is not time-weighted and therefore issues for no value made during the year, (as opposed to at the beginning or end of the year), are all dealt with in the same way (by adjusting the prior year number of shares).

Example 9: issue for no value after an issue for value

A company had 10 000 ordinary shares in issue during 20X1. On 1 April 20X2, 12 000 shares were issued at market value of C5 per share. On 1 June 20X2, there was a share split whereby every 2 shares became 5 shares. The basic earnings were C150 000 in 20X1 and C261 250 in 20X2.

Required:

Calculate the basic earnings per share for the years ended 31 December 20X1 and 20X2.

Solution to example 9: issue for no value after an issue for value

Number of shares	Actual	Current year (weighted)	Prior year (adjusted)
Opening balance	10 000	⁽³⁾ 10 000	10 000
Issue for value	12 000	⁽⁴⁾ 9 000	0
	22 000	⁽⁵⁾ 19 000	⁽⁵⁾ 10 000
Issue for no value	⁽²⁾ 33 000	⁽⁶⁾ 28 500	⁽⁷⁾ 15 000
	⁽¹⁾ 55 000	⁽⁸⁾ 47 500	⁽⁸⁾ 25 000

P.S. Always start with the 'actual' column. The calculations thereafter are then:

⁽¹⁾	Total shares after share split: 22 000 / 2 shares x 5 shares	55 000
⁽²⁾	Shares issued in terms of share split: 55 000 – 22 000	33 000
⁽³⁾	Opening balance: 10 000 shares for 12 months (10 000 x 12/12)	10 000
⁽⁴⁾	New shares issued: 12 000 shares for 9 months (12 000 x 9/12)	9 000
⁽⁵⁾	The ratio between the current and prior year is currently 19 000: 10 000	1,9: 1
⁽⁶⁾	Current year share split adjustment: 19 000 / 22 000 x 33 000	28 500
⁽⁷⁾	Prior year share split adjustment: 10 000 / 22 000 x 33 000	15 000
⁽⁸⁾	Check ratio the same: 47 500: 25 000	1,9: 1

Earnings per share:

$\frac{\text{Earnings}}{\text{Number of shares}} = \frac{\text{C261 250}}{47 500} = \text{C5.5 per share}$	$\frac{\text{C150 000}}{25 000} = \text{C6 per share}$
--	--

4.3.4 Combination issues

A combination issue is one that involves an issue at less than market value: in effect an issue for value (i.e. some of the shares are assumed to have been sold at full market value) and an issue for no value (some of the shares are assumed to have been given away). A rights issue occurs when shares are offered to existing shareholders at a specified reduced price, (less than the market price). There are two methods of calculating the number of shares: one involves the use of a table (where the principles are those used in the previous examples) and the other involves the use of formulae. Both will give you the same final answer.

Example 10: rights issue

A company had 10 000 shares in issue at the beginning of the current year, (20X2), and 3 months before the year-end, the company had a rights issue of 1 share for every 5 shares held. The exercise (issue) price was C4 when the fair value immediately before the rights issue was C5 (i.e. market value cum rights). All the shares offered in terms of this rights issue were taken up.

Required:

Calculate the weighted average number of shares in issue for the purposes of calculating earnings per share in the financial statements for the year ended 31 December 20X2.

Solution to example 10: rights issue - using the 'table approach'

- The number of shares issued in terms of the rights issue: $10\,000/5 \times 1 \text{ share} = 2\,000 \text{ shares}$
- The cash received from the rights issue: $2\,000 \text{ shares} \times C4 = C8\,000$
- The number of shares that are issued may be split into those shares that are effectively sold and those that are effectively given away:

	Number
Shares sold (issue for value): proceeds/ market price cum rights = $C8\,000/ C5$	1 600
Shares given away (issue for no value): total shares issued – shares sold = $2\,000 \text{ shares} - 1\,600 \text{ shares}$ or $(2\,000 \times C5 - C8\,000) / C5$	400
	2 000

- The weighted and adjusted average number of shares may then be calculated:

Note 1: Please remember that issues *for value* during the year require *weighting* of the number of shares to take into account how long the extra capital was available to the entity.

Note 2: Please note that an issue *for no value* will not cause an increase in the profits and therefore, in order to ensure comparability, the prior year shares are adjusted as if the issue *for no value* had occurred in the prior year. Please also note that the adjustment made should not change the ratio between the number of shares in the current year and the prior year.

Number of shares (weighted & adjusted)	Actual	Current year (weighted)	Prior year (adjusted)
Balance: 1/1/20X2	10 000	10 000	10 000
Issue for value (<i>note 1</i>) ($1\,600 \times 3/12$)	1 600	400	0
	11 600	10 400	10 000
Issue for no value (<i>note 2</i>) (CY: $400/11\,600 \times 10\,400$); (PY: $400/11\,600 \times 10\,000$)	400	359	345
Balance: 31/12/20X2	12 000	10 759	10 345

Note 3: Remember that the adjustment made should not change the ratio between the number of shares in the current and prior year. To be sure that you have not changed this ratio, you can check the ratios as follows:

Ratio between the number of shares in the current year and prior year:

Before issue for no value:	$10\,400/10\,000$	1.04
The issue for no value:	$359/345$	1.04
After the issue for no value:	$10\,759/10\,345$	1.04

It can therefore be seen that at no stage did this ratio get altered.

Solution to example 10: rights issue - using the 'formula approach'

Theoretical ex-rights value per share:

$$\begin{aligned}
 & \frac{\text{Fair value of all issued shares before the rights issue plus the resources received from the rights issue}}{\text{Number of shares in issue after the rights issue}} \\
 &= \frac{10\,000 \text{ shares} \times C5 + 2\,000 \text{ shares} \times C4}{10\,000 + 2\,000} \\
 &= \frac{C58\,000}{12\,000} \\
 &= C4.833 \text{ per share}
 \end{aligned}$$

Adjustment factor:

$$\frac{\text{Fair value per share prior to the exercise of the right}}{\text{Theoretical ex-right value per share}}$$

$$= \frac{C5}{C4.833}$$

$$= 1.0345$$

Number of shares (rounded up):

$$= \text{Current year (10 000 shares} \times 1.0345 \times 9/12 + 12\ 000 \times 3/12) \quad 10\ 759$$

$$= \text{Prior year (10 000 shares} \times 1.0345) \quad 10\ 345$$

Notice that the current year calculation of the number of shares is weighted for the number of months *before* the issue and *after* the issue, whereas the prior year is not weighted at all.

Example 11: various issues over three years

Numbers Ltd has a profit of C100 000 for each of the years 20X3, 20X4 and 20X5. There are no preference shares. On 1 January 20X3, there were 1 000 C2 ordinary shares in issue, after which, the following issues took place:

- 30 June 20X4: 1 000 ordinary shares were sold for C3.50 (their market price);
- 30 September 20X4: there was a capitalisation issue of 1 share for every 2 shares in issue on this date, utilising the share premium account;
- 30 June 20X5: 2 000 ordinary shares were sold for C4.00 (their market price); and
- 31 August 20X5: there was a share split whereby every share in issue became 3 shares.

Required:

- Journalise the issues for the years ended 31 December 20X4 and 20X5.
- Calculate the basic earnings per share to be disclosed in the financial statements of Numbers Ltd for the year ended 31 December 20X5.
- Calculate the basic earnings per share as disclosed in the financial statements of Numbers Ltd for the year ended 31 December 20X4.

Solution to example 11A: journals

	Debit	Credit
30/6/20X4		
Bank	3 500	
Ordinary share capital (equity)		2 000
Share premium (equity)		1 500
<i>Issue of 1 000 C2 ordinary shares at C3.50 (market price)</i>		
30/9/20X4		
Share premium	2 000	
Ordinary share capital (equity)		2 000
<i>Capitalisation issue: 1 for 2 shares in issue: (1 000 + 1 000) / 2 x 1 x C2 (PV)</i>		
30/6/20X5		
Bank	8 000	
Ordinary share capital (equity)	2 000 x 2	4 000
Share premium (equity)	2 000 x 2	4 000
<i>Issue of 2 000 C2 ordinary shares at C4 (market price)</i>		

31/8/20X5

There is no journal entry for a share split (the authorised and issued number of shares are simply increased accordingly)

Solution to example 11B: calculations – 20X5 financial statements

W1: Numerator: earnings	20X5	20X4	20X3
	C	C	C
Profit for the year	100 000	100 000	100 000
Preference dividends (not applicable: no preference shares)	0	0	0
Basic earnings per share	100 000	100 000	100 000
			0
			100 000

W2: Denominator: number of shares	Actual	20X5	20X4	20X3
Balance: 1/1/20X3	1 000	N/A	1 000	1 000
Movement: none	0	0	0	0
Balance: 1/1/20X4	1 000	N/A	1 000	1 000
Issue for value: 30/6/20X4 (20X4: $1\,000 \times 6/12$); (20X3: $1\,000 \times 0/12$)	1 000	N/A	500	0
Issue for no value: 30/9/20X4 ($2\,000 / 2 \times 1$); (20X4: $1\,000 \times 1\,500 / 2\,000$); (20X3: $1\,000 \times 1\,000 / 2\,000$)	2 000 1 000	N/A N/A	1 500 750	1 000 500
Balance: 31/12/20X4	3 000	3 000	2 250	1 500
Issue for value: 30/6/20X5 (20X5: $2\,000 \times 6/12$); (20X4 & 20X3: $2\,000 \times 0/12$)	2 000	1 000	0	0
Issue for no value: 31/8/20X5 ($5\,000 \times 3 - 5\,000$); (20X5: $10\,000 \times 4\,000 / 5\,000$); (20X4: $10\,000 \times 2\,250 / 5\,000$); (20X3: $10\,000 \times 1\,500 / 5\,000$)	5 000 10 000	4 000 8 000	2 250 4 500	1 500 3 000
Balance: 31/12/20X5	15 000	12 000	6 750	4 500

W3: earnings per share for inclusion in 20X5 financial statements

	20X5	20X4	20X3
	C	C	C
Basic earnings per share:			
<u>Basic earnings</u>	<u>C100 000</u>	<u>C100 000</u>	<u>C100 000</u>
Weighted average number of shares	12 000	6 750	4 500
	<u>C8.33</u>	<u>C14.81</u>	<u>C22.22</u>

Solution to example 11C: calculations – 20X4 financial statements**W1: earnings per share for inclusion in 20X4 financial statements**

	20X4	20X3
Basic earnings per share:		
<u>Basic earnings</u>	<u>C100 000</u>	<u>C100 000</u>
Weighted average number of shares	2 250	1 500
	<u>C44.44</u>	<u>C66.67</u>

Notice: the denominators used (for the 20X4 and 20X3 years) in the 20X4 financial statements are the number of shares calculated as at 31 December 20X4. This is because the share movements in 20X5 had not yet occurred. The denominators used (for the 20X4 and 20X3 years) in the 20X5 financial statements are not the same, however, since these are adjusted for any issues for no value during the 20X5 (this adjustment is made to improve comparability of the earnings per share).

4.3.5 Share buy-backs

A share buy-back involves a decrease in the capital base of the entity through the entity repurchasing shares from its shareholders. A buy-back involves a reduction of the capital base (fewer issued shares exist after the buy-back) and a reduction in the money/ resources of the entity (the entity pays the shareholders for the shares).

Since the entity pays the shareholders for their shares, the share buy-back is a *for-value* reduction. The treatment of a *for-value reduction* is very similar to that of a *for-value issue* with the exception that the number of shares involved is subtracted rather than added.

Example 12: share buy-back

A company had 10 000 ordinary shares in issue during 20X2.

There was a share buy-back:

- of 5 000 ordinary shares (at market price)
- 60 days before the end of the current year (year-end: 31 December 20X3).

The basic earnings in 20X2 were C20 000 and C17 000 in 20X3

Required:

Calculate the earnings per share in 20X3 and 20X2.

Solution to example 12: share buy-back

W1: Denominator: number of shares	Actual	20X3	20X2
Opening balance: 1/1/20X2	10 000	10 000	10 000
Reduction for value: 1/11/20X3 (20X3: $5\,000 \times 60 / 365$); (20X2: $5\,000 \times 0/12$)	(5 000)	(822)	0
	5 000	9 178	10 000

W2: earnings per share for inclusion in 20X3 financial statements

Basic earnings per share:	20X3	20X2
Basic earnings	<u>C17 000</u>	<u>C20 000</u>
Weighted average number of shares	9 178	10 000
	<u>C1.85</u>	<u>C2.00</u>

4.3.6 Share consolidation (IAS 33.29)

A share consolidation is the combination of 2 or more shares into 1. An entity might do this if they believe that their share price is too low (by reducing the number of shares, the demand for the share should push the market price up).

As can be seen, this transaction requires none of the entity's resources and thus it is treated as a not-for-value reduction. The treatment of a *not-for-value reduction* is very similar to that of a *not-for-value issue* with the exception that the number of shares involved is subtracted rather than added.

Example 13: share consolidation

A company had 10 000 ordinary shares in issue during 20X2.

During 20X3, the company consolidated its shares:

- such that every 2 shares were consolidated into 1 share.
- 60 days before the end of the current year (year-end: 31 December 20X3).

The basic earnings in 20X2 were C20 000 and C17 000 in 20X3

Required:

Calculate the earnings per share in 20X3 and 20X2.

Solution to example 13: share consolidation

W1: Denominator: number of shares	Actual	20X3	20X2
Opening balance: 1/1/20X2	10 000	10 000	10 000
Reduction for no value: 1/11/20X3 (20X3: $5\,000 \times 10\,000 / 10\,000$); (20X2: $5\,000 \times 10\,000 / 10\,000$)	(5 000)	(5 000)	(5 000)
	5 000	5 000	5 000

W2: earnings per share for inclusion in 20X3 financial statements

Basic earnings per share:	20X3	20X2
<u>Basic earnings</u>	<u>C17 000</u>	<u>C20 000</u>
Weighted average number of shares	5 000	5 000
	C3.40	C4.00*

* The 20X2 financial statements would have reflected an earnings per share figure of C2 (C20 000 / 10 000).

5. Diluted earnings per share (IAS 33.30 - .63)**5.1 Overview**

Dilution means to make thinner or less concentrated. With respect to earnings per share, dilution would occur if the same earnings have to be shared amongst more shareholders than are currently in existence. Many entities at year-end have potential shares outstanding, which if converted into shares, would dilute the earnings per share. Diluted earnings per share shows the lowest earnings per share possible assuming that these potential ordinary shares are created. The diluted earnings per share shows users the maximum potential dilution of their earnings in the future (i.e. the worst case scenario) assuming the potential shares currently in existence are converted into ordinary shares in the future. It logically follows that diluted earnings per share can never be higher than basic earnings per share.

Example 14: simple diluted earnings per share

Basic earnings for 20X5: C500 000 (also the profit for the year; there were no components of other comprehensive income)

Ordinary number of shares in issue for 20X5: 1 200 000

300 000 options were in issue at 31 December 20X5 (granted to the directors for no value).

Required:

A) Calculate basic and diluted earnings per share for the year ended 31 December 20X5.

B) Disclose basic and diluted earnings per share for the year ended 31 December 20X5.

Solution to example 14A: simple diluted earnings per share - calculations**W1: Basic earnings per share:**

		20X5
Basic earnings		C500 000
Weighted average number of shares	=	1 200 000
Basic earnings per share	=	C0.4167

W2: Diluted earnings per share:

		20X5
Diluted earnings		C500 000
Weighted average number of shares outstanding + potential shares	=	(1 200 000 + 300 000)
Diluted earnings per share	=	C0.3333

Solution to example 14B: simple diluted earnings per share - disclosure

XYZ Limited		20X5	20X4
Statement of comprehensive income	Note	C	C
For the year ended 31 December 20X5			
Profit for the year		500 000	xxx
Other comprehensive income		0	xxx
Total comprehensive income		500 000	xxx
Basic earnings per share	15	0.4167	x
Diluted earnings per share	15	0.3333	x

XYZ Limited**Notes to the financial statements (extracts)****For the year ended 31 December 20X5****15. Earnings per Share***Basic earnings per share*

Basic earnings per share is based on earnings of C500 000 (20X4 C X) and a weighted average of 1 200 000 (20X4 X) ordinary shares in issue during the year.

Dilutive earnings per share

Dilutive earnings per share is based on dilutive earnings of C500 000 (20X4 C X) and a weighted average of 1 500 000 (20X4 X) ordinary shares during the year.

5.2 Potential Shares (IAS 33.36 - .63)

There are many types of potential shares (dilutive instruments); each has different effects on diluted earnings (the numerator) and/ or the weighted number of shares outstanding (the denominator).

Potential shares are instruments that could potentially alter the number of shares in issue in the future and thereby possibly dilute earnings per share.

Potential ordinary shares are weighted for the period they are outstanding, meaning that:

- potential ordinary shares that are cancelled or allowed to lapse during the period are included in diluted earnings per share only for the part of the period during which they are outstanding; and
- potential ordinary shares that are converted into ordinary shares during the period are included in diluted earnings per share only to the date of conversion.

Types of potential shares are discussed overleaf.

5.2.1 Options (IAS 33.45 - .48)

Options are granted to individuals allowing them to acquire a certain number of shares in the company at a specified price per share (the strike price or exercise price) in the future. This is usually lower than the average market price (fair value) of the share, which therefore encourages the option holder to buy the share. When the date has been reached that the holder is entitled to exercise the option, we say that the option has *vested*. If the owner of the option decides to exercise the option and buy the shares, he will own them unconditionally. Incidentally, if the market price is lower than the strike price (on the exercise date or during an exercise period), the option-holder would probably not purchase the shares and the option would lapse.

When the option is exercised it results in both a 'for value issue' (relating to the cash received) and a 'not for value issue' (relating to the bonus element, being the difference between what should have been received based on the market price and what was received).

The two portions (*for value* and *not for value*) can be calculated as follows:

- the total proceeds received when the options are exercised are divided by the market price per share and the resultant number of shares is seen as a *for value* issue. This *for value* issue requires no adjustment in diluted earnings per share; and
- the total number of share options less the number of 'for value' shares calculated, is the 'not for value' portion. This 'not for value' portion has no effect on the numerator (earnings) but the denominator must be increased accordingly.

The possible conversion of options into ordinary shares only affects the denominator (i.e. the number of shares will increase).

Example 15: options to acquire shares

	20X5
Profit before tax	800 000
Income tax expense	(390 000)
Profit for the year	<u>410 000</u>

There are 200 000 ordinary C2 shares in issue.

During 20X5 the company's shares had an average market value of C6.

The company's directors hold 100 000 options, at a strike price of C2 each. The options have vested during the year.

Required:

Calculate the earnings per share figures for 20X5 ascertainable from the information given.

Solution to example 15: options to acquire shares**Basic earnings per share**

		20X5
Basic Earnings	=	C410 000
Weighted number of shares outstanding		200 000
Basic earnings per share	=	C2.05

Diluted earnings per share:

Total proceeds	=	Effective number of shares that would be sold
Market price		
100 000 x C2	=	33 333 effectively sold (<i>for value</i>)
C6		
100 000 – 33 333	=	66 667 effectively given away (<i>not for value</i>)

Weighted number of shares:

Basic number of shares		200 000
Notionally exercised options (not for value portion):	<i>See calculation above or calculate as follows: bonus element: (market price – strike price): (C6 – C2) ÷ C6 market price x 100 000 options</i>	66 667
Diluted number of shares		266 667

Diluted earnings per share (20X5):

Diluted earnings	=	C410 000
Weighted number of ordinary shares		266 667
Diluted earnings per share	=	C1.5375

5.2.2 Convertible instruments (IAS 33.49 - .51)

Convertible instruments are instruments that may be converted into ordinary shares (known as potential ordinary shares) at some time in the future (either on a specific date or at any time). Examples of convertible instruments include:

- convertible debentures; and
- convertible preference shares.

The effect of a conversion will be:

- an increase in the expected earnings (the numerator): increased by the after tax interest or dividends saved by a conversion; and
- an increase in the number of shares (the denominator): increased by the extra shares that may be created by a conversion.

If the *holder* of the instrument is faced with more than one conversion option, the entity (being the *issuer* of the instrument) must use the most dilutive option in the diluted earnings per share calculation. For example, if the holder of a debenture has the option to convert the debenture into an ordinary share or to redeem it for cash, the entity must assume that the holder will choose the ordinary shares since this will increase the number of shares and therefore decrease dilutive earnings per share.

Example 16: convertible debentures

There are:

- 100 000 ordinary C2 shares in issue
- 200 000 C2 convertible debentures in issue (the conversion rate is: 1 ordinary share for each debenture).

Profit for the year ended 20X5 was C279 000, which included finance costs on the convertible debentures of C30 000 (before tax). Tax is levied at 30%

Required:

Calculate basic earnings and diluted earnings per share to be included in the statement of comprehensive income for the year ended 31 December 20X5. Comparatives are not required.

Solution to example 16: convertible debentures**W1: Basic earnings per share:**

Basic earnings	C279 000
Weighted number of ordinary shares in issue	100 000
<hr/>	
Basic earnings per share	C2.79

W2: Diluted earnings per share:

Profit for the year	279 000
Preference dividend	0
Basic earnings	279 000
Adjustments	
Finance costs avoided	30 000
Tax saving due to finance costs lost (30 000 x 30%)	(9 000)
Diluted earnings	300 000

W3: Weighted number of ordinary shares:

Basic number of shares	100 000
Notionally converted ordinary shares	200 000
Diluted number of shares	300 000

W4: Diluted earnings per share:

Diluted earnings	C300 000
Weighted number of ordinary shares outstanding	300 000
<hr/>	
Diluted earnings per share	C1.00

Example 17: convertible preference shares

There are:

- 200 000 ordinary C2 shares in issue
- 100 000 cumulative, convertible, C2, 20% preference shares in issue (recognised as a liability). The preference shares are convertible at the option of the preference shareholders into ordinary shares at a rate of 1 ordinary share for every convertible preference share on 31 December 20X5.

A preference dividend of C40 000 was declared for 20X5 (recognised as finance costs on the preference share liability).

An extract of the statement of comprehensive income follows:

	20X5
Profit from operations	800 000
Finance costs – preference shares	<u>(45 000)</u>
Profit before taxation	755 000
Income tax expense	<u>(350 000)</u>
Profit for the year	405 000

Required:

Calculate basic earnings and diluted earnings per share for presentation in the statement of comprehensive income for the year ended 31 December 20X5. Comparatives are not required.

Solution to example 17: convertible preference shares

W1: Basic earnings per share:

<u>Basic earnings</u>	=	<u>C405 000</u>
Weighted number of ordinary shares in issue	=	200 000
Basic earnings per share	=	2.025

W2: Diluted earnings per share:

Profit for the year	405 000
Preference dividend ⁽¹⁾	<u>0</u>
Basic earnings	405 000
Adjustments	
Finance costs ⁽¹⁾	45 000
	<u>5 000</u>
Diluted earnings	<u>455 000</u>

(1) the preference dividend is recognised as interest (and thus has already been deducted in the calculation of profit for the year) because the preference shares are recognised as a liability (it should be noted that the amount of the finance costs are not necessarily the same as the actual dividend declared in any year). The tax is, of course, calculated on the actual dividend declared though.

W3: Weighted number of ordinary shares:

Basic number of shares	200 000
Notionally converted ordinary shares	<u>100 000</u>
Diluted number of shares	<u>300 000</u>

W4: Diluted earnings per share:

<u>Diluted earnings</u>	=	<u>455 000</u>
Diluted number of shares	=	300 000
Diluted earnings per share	=	C1.5167

5.2.3 Contingent shares (IAS 33.52 -.57 and .24)

These are shares that are issuable for little or no value only upon the satisfaction of certain conditions specified in a contingent share agreement. Take note that a time delay is not considered to be a contingent condition, as it will always be met. Contingent shares are included in diluted earnings per share calculations only once the condition/s are satisfied.

Example 18: contingent shares

At 1 January 20X5, Airways Limited had 1 million C1 par value shares in issue, which had been in issue for many years. On 2 January 20X5, Airways Limited bought 100% of Radio Limited, which it paid for through an issue of a further 1 million ordinary shares. Another 500 000 ordinary shares are contingently issuable upon Radio Limited generating total profits of C100 million over 3 years.

Airways Limited's profit for 20X5 is C500 million (20X4 C400 million). Radio Limited earned C200 million in 20X5.

Required:

Calculate basic and diluted earnings per share in Airway Ltd's financial statements for 20X4 and 20X5.

Solution to example 18: contingent shares

		20X5	20X4
	<i>Calculation:</i>	C	C
Basic earnings per share	20X5: C500 million ÷ 2 million shares 20X4: C400 million ÷ 1 million shares	250.00	400.00
Diluted earnings per share	20X5: C500 million ÷ 2,5 million shares 20X4 C400 million ÷ 1 million shares	200.00	400.00

Note: The same rules do not apply to basic and diluted shares.

- *Basic shares are not adjusted for these contingent shares because the contingency period is not yet complete and it is not yet certain that the shares will be issued (a profit of 100 million must be made over a 3-year period). Although a large profit in excess of 100 million has already been made, this may reverse before the 3 years is up (e.g. if a large loss is made in 20X6 and 20X7, a net profit of 100 million may not necessarily be made over the 3 years).*
- *Diluted shares must include the contingent shares for as long as the condition is met, even if the condition is only conditionally met at year end, (as in this example). The prior year diluted earnings per share is not restated for the contingent shares since the contingent shares are only taken into account from the date that the contingent share agreement was signed).*

5.3 Multiple dilutive instruments (IAS 33.44)

Many companies have more than one type of dilutive instrument in issue. Some of these instruments will be more dilutive than others. If you recall, the objective of dilutive earnings per share is to show the most dilutive option or 'worst case scenario'. In order to achieve this all instruments must be ranked (most dilutive to least dilutive) and the correct combination that lowers dilutive earnings per share the most must be chosen. The instrument that has the lowest incremental earnings per share is the most dilutive and is ranked first. Options, which have no effect on earnings (numerator) but do have an effect on the number of shares (denominator), will thus have a zero incremental earnings per share and will always be the most dilutive instrument.

Example 19: multiple dilutive instruments

The following information relates to ABC Limited for the year ended 31 December 20X5:

- Basic earnings: C 1,000,000
- Basic number of shares: 995,500

The following potential shares are applicable on 31 December 20X5:

- Convertible debentures (convertible at the option of the debenture holders) into 20 000 ABC Ltd ordinary shares on 31 December 20X9. If the debentures are not converted into

ordinary shares they will be redeemed on 31 December 20X9. Finance costs of C10 000 (after tax) were expensed in arriving at the profit for 20X5;

- Convertible preference shares (convertible at the option of the shareholders) into 40 000 ABC Limited ordinary shares on 31 December 20X9. If the shares are not converted into ordinary shares they will be redeemed on 31 December 20X9. C50 000 finance cost (after tax) were expensed in arriving at the profit for 20X5; and
- Options to acquire 100 000 ordinary shares in ABC Ltd on or after 31 December 20X6 at a strike price of C7,50 per share. During 20X5 the average market price of the shares was C10 per share.

Required:

Disclose the earnings per share figures for inclusion in ABC Limited's statement of comprehensive income for the year ended 31 December 20X5. Comparatives and notes are not required.

Solution to example 19: multiple dilutive instruments

<i>Ranking in order of dilution</i>			Dilutive	Ranking:
Convertible debentures	<i>Increase in earnings</i>	<u>C10 000</u>	0.50	2
	<i>Increase in shares</i>	20 000		
Convertible preference shares	<i>Increase in earnings</i>	<u>C50 000</u>	1.25	3
	<i>Increase in shares</i>	40 000		
Options	<i>100 000 x (10 - 7,5) ÷ C10</i>	<u>C0</u>	0.00*	1
	<i>(bonus element only)</i>	25 000		
	<i>* this will always be zero</i>			

Testing whether dilutive or not

			C
<u>Basic earnings</u>		<u>C1 000 000</u>	1.0045
Basic number of shares		995 500	
<i>Adjust for:</i>			
1. notionally exercised options	<i>C1 000 000 + C0 options</i>	<u>C1 000 000</u>	0.9799
	<i>995 500 basic + 25 000 options</i>	1 020 500	Dilutive
2. notionally exercised options & convertible debentures	<i>C1 000 000 + C0 options + C10 000 finance cost</i>	<u>C1 010 000</u>	0.9707
	<i>995 500 + 25 000 options + 20 000 debentures</i>	1 040 500	Dilutive
3. notionally exercised options, convertible debentures & convertible preference shares	<i>C1 010 000 above + C50 000 finance cost</i>	<u>C1 060 000</u>	0.9810
	<i>1 040 500 above + 40 000</i>	1 080 500	Anti-dilutive

ABC Limited

Statement of comprehensive income (extracts)

For the year ended 31 December 20X5

		20X5
		C
Basic earnings per share	<i>C1 000 000 ÷ 995 500</i>	1.0045
		0.9837
Diluted basic earnings per share	<i>C1 010 000 ÷ 1 040 500</i>	0.9707

6. Disclosure (IAS 33.70 - .73)

6.1 Overview

The earnings per share figures should be disclosed in the statement of comprehensive income and details of the calculation thereof should be disclosed by way of note.

If the entity presents two statements making up the statement of comprehensive income (i.e. an income statement and a statement of comprehensive income), then the earnings per share figure must be disclosed in the separate income statement (also known as the statement of profit or loss).

6.1.1 Statement of comprehensive income

A suggested layout of the statement of comprehensive income disclosure is as follows.

Company name Statement of comprehensive income For the year ended	20X2 C	20X1 C
Profit for the year	xxx	xxx
Other comprehensive income	xxx	xxx
Total comprehensive income	xxx	xxx
Basic earnings per ordinary share	25 xxx	25 xxx
<ul style="list-style-type: none"> • continuing operations • discontinuing operations 	xxx	xxx
<ul style="list-style-type: none"> • continuing operations • discontinuing operations 	xxx	xxx
Diluted basic earnings per ordinary share	25 xxx	25 xxx
<ul style="list-style-type: none"> • continuing operations • discontinuing operations 	xxx	xxx
<ul style="list-style-type: none"> • continuing operations • discontinuing operations 	xxx	xxx

6.1.2 Notes to the financial statements

The earnings per share figures disclosed in the statement of comprehensive income should be referenced to a note. The information in this note should include (for basic and diluted earnings per share, where applicable):

- the earnings amount used in each of the calculations
- a reconciliation of the earnings used in each of the calculations to the profit for the period as per the statement of comprehensive income
- the weighted average number of shares used in each of the calculations
- if there is a diluted earnings per share figure,
 - a reconciliation between the weighted average number of shares used in calculating:
 - basic earnings per share; and
 - diluted earnings per share.
 - Any dilutive instrument that was not included but could in the future still cause dilution (potentially dilutive instruments);
- Any significant share transactions after the end of the reporting period.

6.1.3 Sample disclosure involving earnings per share

Company name
Notes to the financial statements (extracts)
For the year ended ...

25 Earnings per Share

Basic earnings per share

The calculation of basic earnings per share is based on earnings of C XXX (20X4 C XXX) and a weighted average of xxx (20X4 xxx) ordinary shares outstanding during the year.

Diluted basic earnings per share

The calculation of diluted basic earnings per share is based on diluted earnings of C YYY (20X4 C YYY) and a weighted average of yyy (20X4 yyy) shares during the year.

<i>Reconciliation of earnings</i>	20X5		20X4	
	Gross C	Net C	Gross C	Net C
Profit/(Loss) for the period		xx		xx
• Preference dividend		(xx)		(xx)
Basic earnings		xx		xx
• Debenture interest		xx		xx
• Notional preference share dividend		xx		xx
• Finance costs avoided		xx		xx
				xx

Reconciliation of basic number of shares to diluted number of shares

	20X5 Number	20X4 Number
Basic number of shares	xx	xx
• Notionally exercised options	xx	xx
• Notionally converted debentures	xx	xx
• Notionally converted preference shares	xx	xx
Diluted number of shares	xx	xx

Potentially dilutive instruments

There are xxx convertible debentures in issue, which had the effect of being anti-dilutive and were thus not included in the diluted earnings per share calculation.

Significant changes to the number of shares after the end of the reporting period

xxx ordinary shares were issued at par value after (date of the report).

6.2 Further variations of earnings per share (IAS 33.73)

An entity may wish to calculate and disclose a *further* variation on earnings per share by using a different earnings figure (it should be noted that the calculation of the number of shares may never vary). If the entity does disclose a further variation of earnings per share and the earnings used is *not* a reported line item in the statement of comprehensive income, then a reconciliation should be provided reconciling:

- the earnings used in the calculation with
- a line item that is reported in the statement of comprehensive income.

Example 20: disclosure involving multiple dilutive instruments

The following information relates to ABC Ltd for the year ended 31 December 20X5:

- Profit for the year: C1 000 000
- Other comprehensive income: nil
- Basic earnings: C1 000 000
- Profit on sale of plant: C25 000 (tax thereon: C4 250)
- Basic number of shares: 995 500

The following potential shares are applicable on 31 December 20X5:

- Convertible debentures (convertible at the option of the debenture holders) into 20 000 ABC Ltd ordinary shares on 31 December 20X9. If the debentures are not converted into ordinary shares they will be redeemed on 31 December 20X9. Finance costs of C10 000 (after tax) were expensed in arriving at the profit for 20X5;
- Convertible preference shares (convertible at the option of the shareholders) into 40 000 ABC Limited ordinary shares on 31 December 20X9. If the shares are not converted into ordinary shares they will be redeemed on 31 December 20X9. C50 000 finance cost (after tax) were expensed in arriving at the profit for 20X5; and
- Options to acquire 100 000 ordinary shares in ABC Ltd on or after 31 December 20X6 at a strike price of C7.50 per share. During 20X5 the average market price of the shares was C10 per share.

Required:

Disclose the earnings per share figures for inclusion in ABC Ltd's statement of comprehensive income for the year ended 31 December 20X5.

Solution to example 20: disclosure including multiple dilutive instruments

Please see example 19 for the workings.

ABC Limited**Statement of comprehensive income (extracts)****For the year ended 31 December 20X5**

	Note	20X5 C	20X4 C
Profit for the year		1 000 000	xxx
<i>Other comprehensive income</i>		0	xxx
Total comprehensive income		1 000 000	xxx
Basic earnings per ordinary share	<i>C1 000 000 / 995 500</i>	35	1.0045
Diluted basic earnings per ordinary share	<i>C1 010 000 / 1 040 500</i>	35	0.9707

ABC Limited**Notes to the financial statements (extracts)****For the year ended 31 December 20X5****35. Earnings per share***Basic earnings per share*

The calculation of basic earnings per share is based on earnings of C1 000 000 (20X4 C.....) and a weighted average of 995 500 (20X4 xxx) ordinary shares in issue during the year.

Diluted basic earnings per share

The calculation of diluted basic earnings per share is based on diluted earnings of C1 010 000 (20X4 C.....) and a weighted average of 1 040 500 (20X4 yyy) shares during the year.

Reconciliation of earnings:

	20X5		20X4	
	Gross C	Net C	Gross C	Net C
<i>Basic earnings</i>		1 000 000		xx
Debenture interest		10 000		xx
Notional preference share dividend		-		xx
<i>Diluted basic earnings</i>		<u>1 010 000</u>		<u>xx</u>

ABC Limited**Notes to the financial statements (extracts)****For the year ended 31 December 20X5 continued ...****35. Earnings per share continued ...**

	20X5 Number	20X4 Number
<i>Reconciliation of basic number of shares to diluted number of shares</i>		
Basic number of shares	995 500	xx
• Notionally exercised options	25 000	xx
• Notionally converted debentures	20 000	xx
Diluted number of shares *	<u>1 040 500</u>	<u>xx</u>

**Note: remember not to include anti-dilutive instruments*

Potentially dilutive instruments

Preference shares exist that are convertible, at the shareholders request, into 40 000 ordinary shares. These convertible preference shares could potentially dilute earnings per share further. These have been excluded from the diluted earnings per share calculation since they are currently anti-dilutive.

7. Summary

