Chapter 21

IAS 33 EARNINGS PER SHARE

Need for EPS

- earnings per share (EPS) is a component part of the calculation of the Price Earnings Ratio (PE Ratio) which itself is often taken to be the most important ratio used by investment analysts. This is because it allows a direct comparative measure of entities operating in different industries and different markets.

- in addition, EPS allows analysts to compare an entity's performance over a period of time.

- because of these reasons, it was seen as necessary that a standard approach to the calculation of EPS should be defined.

IAS 33 Calculation

- **scope and disclosure**

  - applies to all entities with shares which are publicly traded.

  - show basic and diluted EPS on the face of the Statement of Profit or Loss and Other Comprehensive Income with equal prominence whether the result is positive or negative for each class of equity shares.

  - note showing:

    - earnings figure used (numerator) for both basic and diluted EPS and a reconciliation to the net profit or loss for the period;
    - weighted average number of equity shares used (denominator) in both the basic and diluted EPS calculation and a reconciliation between the two.

- **Earnings per share**

  - basic EPS is calculated as:

$$\frac{\text{Net profit or loss for the period attributable to equity shareholders}}{\text{Weighted average number of equity shares outstanding during the period}} \qquad \text{expressed in cents}$$

  - net profit or loss attributable to equity shareholders is consolidated profit after

    - income tax
    - non-controlling interest
    - preference dividends

Changes in equity share capital

- **decreases in share capital** occur, rarely, when an entity buys back shares from its investors and cancels them.

- **increases in share capital (**can happen in a variety of ways):

  - issues at full market price

  - rights issues

  - bonus issues

  - capitalisation issues

  - scrip issues

  Note Capitalisation and scrip issues may be taken to be the same as bonus issues

- **issues at full market price**

  - theory suggests that the market price of a share represents the present value of the future earnings of that share, discounted for time. There is, therefore, no affect on the earning capacity of existing shares.

  - the weighted average number of equity shares calculation will be affected, but only to account for the increase with effect from the date of the issue.

- **rights issues**

  - a rights issue occurs when an entity offers to its existing shareholders the right to acquire more shares in the entity at a price lower than the current mid-market price ie at a discount on mid-market price

  - the rule to apply is:

    - multiply all prior periods this year by the RIGHTS FRACTION, and
    - multiply last year's disclosed EPS by the reciprocal of the rights fraction.

- **the rights fraction**

  The rights fraction is calculated as $\dfrac{\text{CRAP}}{\text{TERP}}$

  - what is CRAP? The cum-rights actual price ie the market price of the share immediately before the rights issue. That's CRAP

  - what is TERP? The theoretical ex rights price ie a calculated theoretical value per share immediately after the rights issue.

  - the calculation is best set out in a short working as illustrated.

EXAMPLE 1

Svetlana had in issue at 1 January, 2009 5,000,000 $1 equity shares.
On 1 August, 2009 Svetlana made a 1 for 4 rights issue at an exercise price of $3. The mid-market price immediately before the rights issue was $4.
Earnings for the year available to equity shareholders was $3,000,000, and 2008 disclosed EPS was 54c

Calculate Svetlana's basic EPS for 2009, and restate the comparative figure.

- **bonus issues**

    - a bonus issue is a free issue of shares, given to existing shareholders. No extra funds are available to the entity.

    - a bonus issue is treated as though the additional shares had been in existence from the first day of the year, and an adjustment is required also, to reflect the issue, to the disclosed EPS for the previous year.

- **the rule to apply is:**

    - multiply all prior periods this year by the BONUS FRACTION, and

    - multiply last year's disclosed EPS by the reciprocal of the bonus fraction.

- **the bonus fraction**

    - The bonus fraction is calculated as:

        $$\frac{\text{number of shares in issue after the bonus}}{\text{number of shares in issue before the bonus}}$$

    - if an entity had 400,000 shares in issue, and made a 1 for 8 bonus issue, then after the issue, there would be 450,000 shares in issue.

        so we could express the bonus fraction as $\dfrac{450,000}{400,000}$

    - but it is so much easier to express it on the basis of 8 shares originally moving to 9 shares after the bonus ie $\dfrac{9}{8}$

EXAMPLE 2

Larissa had earnings of $600,000 for the year ended 28 February, 2009 and 2,000,000 $1 equity share capital at 1 March, 2008. On 31 August, Larissa issued 3,000,000 new shares at full market price, and on 1 November 2008, Larissa made a bonus issue of 2 new shares for every 7 already held. Last year's EPS was disclosed as 16c.

Calculate the basic EPS for Larissa for the year ended 28 February, 2009, and restate the comparative EPS.

Note, it is well worth counting the months on your fingers.

For example April – August could be
3 months	(30.4 – 1.8), or
4 months	(30.4 – 31.8), or
5 months	(1.4 – 31.8)

Diluted EPS Overview

- an entity will calculate, and disclose, its basic EPS prominently in the financial statements for each year.

- but the entity may have in issue financial instruments which allow the holder to convert those instruments into equity shares at some time in the future.

- on conversion, clearly the number of shares in issue will increase and, at the same time, the earnings available for equity may also change because, for example, the entity will no longer have to pay loan interest.

    Note: for the purpose of the exam, only two such instruments need to be considered:
    - options

    - convertible loans or bonds

- the principle behind the diluted EPS calculation is to show existing and potential investors the effect which these future conversions would have if the conversion date had been on the earliest day possible in the current year.

- put another way, if these future conversion rights had been able to be exercised at the start of the current year, but earnings had remained the same, what would the EPS figure be?

Diluted EPS Options

- options are often granted to directors and senior employees as an incentive for them to work harder for the entity. As a result of their efforts, the value of the entity will hopefully increase, and the share price will reflect this increase in value.

- on the date the options are granted, the exercise price will be higher than the current mid-market price, and the exercise date may be a number of years into the future.

- as time goes on, as a result of the directors' efforts, the mid-market price will increase to a level greater than the exercise price. But with options (sometimes called "warrants") the exercise price is fixed.

  Note: only when the mid-market price exceeds the exercise price do we need to consider the options in the diluted eps calculation. In the exam this is the situation which you will face.

EXAMPLE 3

Solveiga had in issue 4,000,000 $1 equity shares throughout the year ended 31 December, 2009, with an average mid-market price of $5. There were also 3,000,000 outstanding options, which had been granted to the directors, allowing them to exercise their option at $4 per share.
Earnings for the year ended 31 December, 2009 available for equity were $2,800,000.

Calculate the basic and diluted eps for Solveiga for the year ended 31 December, 2009.

Convertible loans or bonds

- when the loans are converted into equity shares, the entity will no longer have the loan interest as an expense. So pre-tax earnings will increase by the amount of the loan interest.

- but that means that taxable profits will also increase. So the saving for the entity will be only the net-of-tax loan interest.

EXAMPLE 4

Kaspars, throughout the year ended 31 December, 2009 had in issue 2,000,000 equity shares and $3,000,000 6.25% convertible bonds. Each $1,000 bond is convertible into 760 equity shares on 31 December 2013, or 740 equity shares on 31 December 2014. Earnings available for equity for the year ended 31 December, 2009 were $700,000 and the corporate income tax rate is 25%.

Calculate Kaspars' basic and diluted eps for the year ended 31 December, 2009.

- **maximum dilution**

  - so far we have considered, in each example, only one diluting instrument. But what if there is more than one? Clearly, all financial instruments outstanding could have a diluting affect, but one, or more, of them may in fact improve the basic EPS.

  - these are known as anti-dilutive, and are ignored for disclosure purposes ie we show the worst position possible in order to allow existing and potential investors to appreciate the maximum dilution.

  - where we are faced with more than one convertible financial instrument, the sequence in which we consider their impact is important.

- **the rule is:**

  - consider them in the sequence of "most diluting first"

  - to arrive at this sequence, it is necessary to calculate the "marginal earnings per share" for each conversion. When calculated, we must rank them in the correct sequence, and then apply them in that sequence in a working to establish the diluted eps.

Edgars had in issue throughout the year ended 31 December, 2009 3,370,000 $1 equity shares, and earnings for the year, after tax at 25%, were $10,000,000. Of this amount, $900,000 was from discontinued operations. An average mid-market price for the year for Edgars' shares was $4.

In addition, Edgars had the following outstanding financial instruments:
- 520,000 options, exercise price $3.00, exercise date 31 December 2011
- 2,000,000 options exercise price $5.00 exercise date 31 December 2013
- $20,000,000 10.673% convertible bonds. Conversion terms are for each $1,000 bond the holder can acquire 18 equity shares on 31 December 2012 or 30 equity shares on 31 December 2014.

Calculate Edgar's basic and diluted eps for the year ended 31 December, 2009.

Convertible preference shares are a further possible diluting financial instrument.