ACCOUNTING STANDARD **AASB 1046A**

September 2004

Amendments to Accounting Standard AASB 1046

Australian Government

Australian Accounting Standards Board

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Accounting Standard AASB 1046A *Amendments to Accounting Standard AASB 1046* is set out in paragraphs 1.1 – 3.1 and in the Appendix 6. All paragraphs have equal authority. Terms defined in this Standard are in *italics* the first time they appear in the Standard.

PREFACE

Reasons for Issuing AASB 1046A

The Australian Accounting Standards Board (AASB) is implementing the Financial Reporting Council's policy of adopting the Standards of the International Accounting Standards Board (IASB) for application to reporting periods beginning on or after 1 January 2005. The AASB's Standards are being changed to adopt the IASB Standards effective at that date by replacing relevant existing AASB Standards with Australian Standards equivalent to those of the IASB.

In January 2004, the AASB issued AASB 1046 *Director and Executive Disclosures by Disclosing Entities*, effective for periods ending on and after 30 June 2004. Since its initiation in 1998, the project has been subject to many changes and delays, waiting for other developments to crystallise. It could have been delayed even further, waiting on the final versions of the CLERP 9 proposals and the expected Standard on share-based payment from the IASB. However, the AASB decided further delay in improving the current corporate disclosure regime in Australia could not be justified. Although resolution of the other issues might improve the Standard, the time frame was uncertain and the benefits probably marginal. The Board decided to issue AASB 1046, referring to other AASB Standards current as at January 2004 and to schedule a revision shortly before those references become meaningless when the Standards are replaced by the Australian equivalents to IASB standards.

The IASB issued IFRS 2 *Share-based Payment* in February 2004, and the measurement rules in relation to equity-settled share-based payment differed substantially from the proposals in ED 2 (issued 7 November 2002). In particular, IFRS 2 differentiated between vesting conditions, according special treatment to a 'market condition' (explained below).

In March 2004, the Board released Pending AASB 2 *Share-based Payment*, its provisions being the same as IFRS 2, including the special treatment for market conditions. The Australian Standard, AASB 2, was made on 15 July 2004, effective for annual reporting periods beginning on or after 1 January 2005. It was always the intention of the Board that the rules in AASB 1046 for measuring the equity component of remuneration disclosed should, as far as possible in the different circumstances, be the same as in AASB 2. Although the AASB was aware of proposals for special treatment in various drafts preceding IFRS 2, the final content of IFRS 2 was uncertain at the time the Board decided on the measurement rules for AASB 1046. Appendix 6 was included as a stop-gap, to cover reporting prior to the effective date of AASB 2 and did not include the special treatment for market conditions.

Based on feedback from constituents, the Board decided to amend AASB 1046 as a matter of urgency prior to the scheduled revision, to permit the use of the 'market condition' rules in measuring the value of equity compensation grants, to bring calculations for these disclosures into line with the methods that will be required when AASB 2 becomes effective. The Board intends that the revised AASB 1046 (forthcoming) will rely on these rules, and that Appendix 6 will be deleted. This Standard is being issued as an interim measure to minimise difficulties from a change in method of calculation that may arise on the changeover.

Special Treatment of Market Condition

A market condition is a term in a grant of equity instruments, usually options, that causes the exercise price, vesting or exercisability of those instruments to depend on the market price of the issuing entity's equity instruments (usually the shares underlying the options). Satisfaction of a market condition may require the share price to reach a specified level in order to vest or the achievement of a specified target that is based on the market price of the issuing entity's shares relative to an index of market prices of equity instruments of other entities. This includes hurdles such as Total Shareholder Return (TSR), a performance hurdle commonly used in Australia.

In IFRS 2, for all vesting conditions other than market conditions, the probability of satisfying the condition is not permitted to affect the calculation of the fair value of an option at grant date and, at vesting date, the cumulative expense for the grant is adjusted (trued-up) for the number of options actually vesting (times the original grant date fair value per option). If none vest, then expenses recognised since the date of grant can be reversed. However, in IFRS 2, a market condition must be used in calculating the value of an option at grant date. It will always reduce the fair value, since the probability of satisfying the condition will always be less than 100%. The major difference from other vesting conditions is that 'truing-up' is not permitted for failure to satisfy a market condition. The full expense must still be recognised for any grant that does not vest because the market condition was failed. Despite this, truing-up can be used if failure to vest can be attributed to failing any other vesting condition, irrespective of whether the market condition is satisfied. A further (minor) difference in the case of a market condition is that, when the vesting period is not fixed and can vary depending on vesting conditions, the estimate of the vesting date made at grant date cannot be altered subsequently to reflect the actual vesting date. When the length of the vesting period depends on a non-market condition (or conditions), the allocation of the value of the grant to each reporting period prior to vesting date can be amended to reflect a change from the estimate made at grant date.

Main Features of this Standard

Application Date

This Standard is applicable to annual reporting periods beginning on or after 1 July 2004. Early adoption of this Standard is permitted.

Main Requirements

The Standard amends the rules for measuring grants of equity compensation in AASB 1046 (issued January 2004) to permit use of the special treatment accorded to a 'market condition' in Accounting Standard AASB 2 prior to the effective date of AASB 2 (1 January 2005). To do so, Appendix 6 in this Standard replaces Appendix 6 in AASB 1046.

In addition, the definition of market condition is added to the definitions in AASB 1046 and the requirements relating to comparative information are amended to authorise retrospective application of the changed measurement rules where necessary.

ACCOUNTING STANDARD AASB 1046A

The Australian Accounting Standards Board makes Accounting Standard AASB 1046A *Amendments to Accounting Standard AASB 1046* under section 334 of the *Corporations Act 2001*.

D.G. Boymal
Chair – AASB

Dated 28 September 2004

ACCOUNTING STANDARD AASB 1046A

AMENDMENTS TO ACCOUNTING STANDARD AASB 1046

1 Application

1.1 This Standard applies to each disclosing entity that is required to prepare financial reports in accordance with Part 2M.3 of the Corporations Act.

2 Operative Date

2.1 This Standard applies to annual reporting periods beginning on or after 1 July 2004.

2.2 This Standard may be applied to annual reporting periods beginning before 1 July 2004 where an election has been made in accordance with subsection 334(5) of the Corporations Act.

2.3 When applied, this Standard amends AASB 1046 *Director and Executive Disclosures by Disclosing Entities*, made on 27 January 2004 and notified in the *Commonwealth of Australia Gazette* No S66, 28 January 2004.

2.3.1 Notice of this Standard was published in the *Commonwealth of Australia Gazette* No S400, 29 September 2004.

3 Amendments to AASB 1046

3.1 This Standard amends AASB 1046 (January 2004) as follows:

(a) adds paragraphs 11.2 and 11.2.1 as below, to follow paragraph 11.1.3 in Section 11 *Comparative Information*:

“11.2 An amount of equity compensation included in remuneration disclosed in the preceding reporting period may be recalculated for disclosure as comparative information if the change (addition of the *market condition* rules) to the measurement rules in Appendix 6 introduced by AASB 1046A causes a change to the value previously measured at grant date for a grant of equity compensation.

11.2.1 The change introduced by AASB 1046A to the rules for measuring equity compensation initially provided in AASB 1046, Appendix 6 (January 2004), affects only those grants of equity compensation that contain a market condition. When, as part of the allocation of the value of such a grant, an amount was included in remuneration disclosed for the reporting period preceding the effective date of AASB 1046A, it would have been measured using the initial rules. Application of the revised rules in Appendix 6 to a grant of equity compensation where vesting conditions include a market condition is likely to reduce the total value of the grant and cause the amount allocated to the prior period to be less than the amount that was included in remuneration disclosures. In such circumstances, the comparative information provided can be calculated as though the revised Appendix 6 in this Standard had always applied.”

(b) adds the following definition to paragraph 12.1 in Section 12 *Definitions*:

“*Market condition* means a condition upon which the exercise price, vesting or exercisability of an equity instrument depends that is related to the market price of the entity’s equity instruments, such as attaining a specified share price or a specified amount of intrinsic value of a share option, or achieving a specified target that is based on the market price of the entity’s equity instruments relative to an index of market prices of equity instruments of other entities.”

(c) replaces Appendix 6 in AASB 1046 with Appendix 6 in this Standard.

APPENDIX 6

PRINCIPLES OF MEASUREMENT AND ALLOCATION OF SHARE-BASED PAYMENT COMPENSATION

This Appendix forms an integral part of the Standard.

All references to employees shall be read as applying to directors and executives.

Equity Compensation (equity-settled share-based payments)

A transaction with an employee in his/her capacity as a holder of equity instruments of the entity is not a share-based payment transaction. For example, if an entity grants all holders of a particular class of its equity instruments the right to acquire additional equity instruments of the entity at a price that is less than the fair value of those equity instruments, and an employee receives such a right because he/she is a holder of that particular class of equity instruments, the granting or exercise of that right is not classified as remuneration.

The entity shall measure the fair value of the employee services received by reference to the fair value of the equity instruments granted, because typically it is not possible to estimate reliably the fair value of the services received.

If the equity instruments granted vest immediately (i.e. the employee is not required to complete a specified period of service before becoming unconditionally entitled to those equity instruments), the entity shall presume that services rendered by the employee as consideration for the equity instruments have been received. In this case, on grant date the entity shall treat the full value of the grant of equity instruments as remuneration and include it in disclosures for that reporting period.

If the equity instruments granted do not vest until the employee completes a specified period of service, the entity shall presume that the services to be rendered by the employee as consideration for those equity instruments will be received in the future, during the vesting period. The entity shall treat the grant as remuneration for those services as they are rendered by the employee during the vesting period. The value of the grant is allocated proportionately to reporting periods between grant date and vesting date. For example:

(i) if an employee is granted share options conditional upon completing three years' service, then the entity shall presume that the employee services will be received over that three-year vesting period and allocate one-third of the value of the grant to each year; or

(ii) if an employee is granted share options conditional upon the achievement of a performance condition and remaining in service until that performance condition is satisfied, and the length of the vesting period varies depending on when that performance condition is satisfied, the entity shall presume that the services will be received over the expected vesting period. The entity shall estimate the length of the expected vesting period at grant date, based on the most likely outcome of the performance condition. If the performance condition is a market condition, the estimate of the length of the expected vesting period shall be consistent with the assumptions used in estimating the fair value of the options granted, and shall not be subsequently revised. If the performance condition is not a market condition, the entity shall revise its estimate of the length of the vesting period if subsequent information indicates that the length of the vesting period differs from previous estimates.

An entity shall measure the fair value at grant date of equity instruments granted, based on market prices if available, taking into account the terms and conditions upon which those equity instruments were granted, except for vesting conditions other than market conditions and reload features that are excluded from the measurement of fair value.

If market prices are not available, the entity shall estimate the fair value at grant date of the equity instruments granted using a valuation technique to estimate what the price of those equity instruments would have been on grant date in an arm's length transaction between knowledgeable, willing parties. The valuation technique shall be consistent with generally accepted valuation methodologies for pricing financial instruments and shall incorporate all factors and assumptions that knowledgeable, willing market participants would consider in setting the price (except for vesting conditions other than market conditions and reload features that are excluded from the measurement of fair value).

Treatment of vesting conditions

A grant of equity instruments might be conditional upon satisfying specified vesting conditions. For example, a grant of shares or options to an employee is typically conditional on the employee remaining in the entity's employ for a specified period of time. There might also be performance conditions that must be satisfied, such as the entity's achieving a specified growth in profit or a specified increase in the entity's share price. Vesting conditions other than market conditions shall not be taken into account when estimating the

fair value of the shares or options at grant date. Instead, vesting conditions other than market conditions shall be taken into account by adjusting the number of equity instruments included in the measurement of the transaction amount such that, ultimately, the amount treated as remuneration for services received as consideration for the equity instruments granted shall be based on the number of equity instruments that eventually vest. Hence, no amount is treated as remuneration for services received if the equity instruments granted do not vest because of failure to satisfy a vesting condition other than a market condition. For example, the employee fails to complete a specified service period or a performance condition other than a market condition is not satisfied.

For grants not including a market condition, the entity shall disclose as remuneration in each reporting period during the vesting period the pro rata amount based on the best available estimate of the number of equity instruments expected to vest. That estimate, if necessary, is revised when subsequent information indicates that the number of equity instruments expected to vest differs from initial estimates. On vesting date, the entity shall revise the estimate to equal the number of equity instruments that ultimately vested.

Market condition

Market conditions, such as a target share price upon which vesting (or exercisability) is conditioned, shall be taken into account when estimating the fair value of the equity instruments granted. Therefore, for grants of equity instruments with market conditions, the entity shall disclose as remuneration in each reporting period during the vesting period the pro rata amount for an employee who satisfies all other vesting conditions (e.g. services received from an employee who remains in service for the specified period of service), irrespective of whether that market condition is satisfied. There is no revision on vesting date if all or part of a grant fails to vest because of failure to satisfy a market condition.

Treatment of a reload feature

For options with a reload feature, the reload feature shall not be taken into account when estimating the fair value of options at grant date. Instead, if and when a reload option is granted, the reload option shall be accounted for as a new option grant.

After vesting date

In reporting periods subsequent to that in which vesting occurs, the entity shall make no subsequent adjustment to remuneration disclosed in prior periods. For example, the entity shall not subsequently reverse an amount previously disclosed as remuneration for an employee if vested options are

not exercised. This applies irrespective of whether a grant contains a market condition.

Modifications to the terms and conditions on which equity instruments were granted, including cancellations and settlements

An entity might modify the terms and conditions on which the equity instruments were granted. For example, it might reduce the exercise price of options granted to employees (i.e. reprice the options), which increases the fair value of those options.

The entity should treat the effects of modifications that are beneficial to the employee as follows.

- When the modification occurs during the vesting period, the incremental fair value granted is included in the measurement of the amount allocated to remuneration for services received over the remainder of the vesting period, in addition to the amount based on the grant date fair value of the original equity instruments.

- When the modification occurs on or after vesting date, the incremental fair value granted is treated as remuneration in that reporting period.

The incremental fair value granted is the difference between the fair value of the modified (or replacement) equity instruments and the net fair value of the original equity instruments at the date the modification (or replacement) occurs.

If the entity modifies before vesting date the terms or conditions of the equity instruments granted in a manner that is not beneficial to the employee, the entity shall nevertheless continue to disclose remuneration for the services received as consideration for the equity instruments granted as if that modification had not occurred (other than a cancellation of some or all the equity instruments granted, which shall be treated as described below).

When the entity cancels or settles a grant of equity instruments prior to vesting date (excluding forfeiture when the vesting conditions are not satisfied), the following principles apply.

- The entity shall treat the cancellation or settlement as an acceleration of vesting, and shall therefore disclose immediately as remuneration the amount that would have otherwise been disclosed over the remainder of the vesting period.

- Any payment made to the employee on the cancellation of the grant or as settlement (in lieu of any potential for rights to equity) shall be treated as the repurchase of an equity interest. To the extent that the

payment exceeds the fair value of the shares or options granted, measured at the repurchase date, any such excess shall be disclosed as remuneration.

- If new equity instruments are granted to the employee and, on the date when those new equity instruments are granted:

  (a) the entity identifies the new equity instruments granted as replacement equity instruments for the cancelled equity instruments, the entity shall treat the granting of replacement equity instruments in the same way as a modification of the original grant of equity instruments; or

  (b) if the entity does not identify the new equity instruments granted as replacement equity instruments for the cancelled equity instruments, the entity shall treat those new equity instruments as a new grant of equity instruments.

When an entity repurchases vested equity instruments, on or after vesting date, and the payment exceeds the fair value of the equity instruments repurchased, measured at the repurchase date, any such excess shall be disclosed as remuneration in that reporting period.

Cash SARs (cash-settled share-based payment transactions)

An entity might grant share appreciation rights (SARs) to employees as part of their remuneration package, whereby the employees will become entitled to a future cash payment (rather than an equity instrument) based on the increase in the entity's share price from a specified level over a specified period of time.

The entity shall treat such grants as remuneration as the employees render service. For example, some SARs vest immediately and the employees are not required to complete a specified period of service to become entitled to the cash payment. In the absence of evidence to the contrary, the entity shall presume that the services rendered by the employees in exchange for the SARs have been received. Thus, the entity shall disclose the value of the grant immediately as remuneration. If the SARs do not vest until the employees have completed a specified period of service, the entity shall allocate the number of rights proportionately to remuneration in the reporting periods, as the employees render service from grant date to vesting date.

When the SARs do not vest immediately, the remuneration disclosed is the difference in the estimated liability arising in the reporting period. The liability shall be estimated, initially and at each reporting date until settled, at the fair value of the SARs, by applying an option-pricing model, taking into account the terms and conditions on which the SARs were granted, and the extent to which the employees have rendered service to date.

Inputs to Option-pricing Models

In estimating the expected volatility of and dividends on the underlying shares, the objective is to approximate the expectations that would be reflected in a current market or negotiated exchange price for the option. Similarly, when estimating the effects of early exercise of employee share options, the objective is to approximate the expectations that an outside party with access to detailed information about employees' exercise behaviour would develop based on information available at the grant date.

Often, there is likely to be a range of reasonable expectations about future volatility, dividends and option life. If so, an expected value should be calculated, by weighting each amount within the range by its associated probability of occurrence.

Expectations about the future are generally based on past experience, modified if the future is reasonably expected to differ from the past. In some circumstances, identifiable factors may indicate that unadjusted historical experience is a relatively poor predictor of future experience. For example, if an entity with two distinctly different lines of business disposes of the one that was significantly less risky than the other, historical volatility may not be the best information on which to base reasonable expectations for the future.

In other circumstances, historical information may not be available. For example, a newly listed entity will have little, if any, historical data on the volatility of its share price. Newly listed entities are discussed further below.

In summary, an entity should not simply base estimates of volatility, expected life of option and dividends on historical information without considering the extent to which the past experience is expected to be reasonably predictive of future experience.

Expected early exercise

The expected life of an option is frequently shorter than its contractual life because employees often exercise share options early, for a variety of reasons. For example, employee share options are typically non-transferable.

This often causes employees to exercise their share options early, because that is the only way for the employees to liquidate their position. Also, employees who cease employment may be required to exercise any vested options held within a short period of time, precipitating the early exercise of employee share options. Other factors causing early exercise are risk aversion and lack of wealth diversification.

The means by which the effects of expected early exercise are taken into account depend upon the type of option-pricing model applied. For example, expected early exercise behaviours could be taken into account by using an estimate of the option's expected life (which, for an employee share option, is the period of time from grant date to the date on which the option is expected to be exercised) as an input into an option-pricing model. Alternatively, expected early exercise parameters could be modelled in a binomial or similar option-pricing model that uses contractual life as an input.

Factors to consider in estimating the effect of early exercise on the life of an option include:

(i) the length of the vesting period, because the share option typically cannot be exercised until the end of the vesting period. Hence, determining the valuation implications of expected early exercise is based on the assumption that the options will vest, and expected life cannot be less than the vesting period;

(ii) the average length of time similar options have remained outstanding in the past;

(iii) the price of the underlying shares. Past experience may indicate that the employees tend to exercise options when the share price reaches a specified level above the exercise price;

(iv) the employee's level within the organisation. For example, past experience might indicate that higher-level employees tend to exercise options later than lower-level employees (discussed further below); and

(v) expected volatility of the underlying shares. On average, employees might tend to exercise options on highly volatile shares earlier than on shares with low volatility.

If the entity applies the Black-Scholes-Merton formula to value the share options, the effects of early exercise are taken into account by using the option's expected life as an input into the formula. When estimating the expected life of share options granted to a group of employees, the entity could base that estimate on an appropriately weighted average expected life for the entire employee group or on appropriately weighted average lives for

subgroups of employees within the group, based on more detailed data about employees' exercise behaviour.

Separating an option grant into groups for employees with relatively homogeneous exercise behaviour is likely to be important. Option value is not a linear function of option term; value increases at a decreasing rate as the term lengthens. For example, if all other assumptions are equal, although a two-year option is worth more than a one-year option, it is not worth twice as much. That means that calculating estimated option value on the basis of a single weighted average life that includes widely-differing individual lives would overstate the total fair value of the share options granted. Separating options granted into several groups, each of which has a relatively narrow range of lives included in its weighted average life, reduces that overstatement.

Similar considerations apply when using a binomial or similar model. For example, the experience of an entity that grants options broadly to all levels of employees might indicate that top-level executives tend to hold their options longer than middle-management employees hold theirs and that lower-level employees tend to exercise their options earlier than any other group. In addition, employees who are encouraged or required to hold a minimum amount of their employer's equity instruments, including options, might on average exercise options later than employees not subject to that provision. In those situations, separating options by groups of recipients with relatively homogeneous exercise behaviour will result in a more accurate estimate of the total fair value of the share options granted.

Expected volatility

Expected volatility is a measure of the amount by which a price is expected to fluctuate during a period. The measure of volatility used in option-pricing models is the annualised standard deviation of the continuously compounded rates of return on the share over a period of time. Volatility is typically expressed in annualised terms that are comparable regardless of the time period used in the calculation, for example, daily, weekly or monthly price observations.

The rate of return (which may be positive or negative) on a share for a period measures how much a shareholder has benefited from dividends and appreciation (or depreciation) of the share price.

The expected annualised volatility of a share is the range within which the continuously compounded annual rate of return is expected to fall approximately two-thirds of the time. For example, to say that a share with an expected continuously compounded rate of return of 12 per cent has a volatility of 30 per cent means that the probability that the rate of return on the share for one year will be between –18% (being 12% – 30%) and +42%

(being 12% + 30%) is approximately two-thirds. If the share price is $100 at the beginning of the year and no dividends are paid, the year-end share price would be expected to be between $83.53 (being $\$100 \times e^{-0.18}$) and $152.20 (being $\$100 \times e^{0.42}$) approximately two-thirds of the time.

The following factors should be considered in estimating expected volatility.

- Implied volatility from traded share options over the entity's shares, or other traded instruments of the entity that include options features (such as convertible debt), if any.

- The historical volatility of the share price over the most recent period that is generally commensurate with the expected term of the option (taking into account the remaining contractual life of the option and the effects of expected early exercise).

- The length of time an entity's shares have been publicly traded. A newly listed entity might have a high historical volatility, compared with similar entities that have been listed longer. Further guidance for newly listed entities is given below.

- The tendency of volatility to revert to its mean (being its long-term average level) as well as other factors indicating that expected future volatility might differ from past volatility. For example, if an entity's share price was extraordinarily volatile for some identifiable period of time because of a failed takeover bid or a major restructuring, that period could be disregarded in computing historical average annual volatility.

- Appropriate and regular intervals for price observations. The price observations should be consistent from period to period. For example, an entity might use the closing price for each week or the highest price for the week, but it should not use the closing price for some weeks and the highest price for other weeks. Also, the price observations should be expressed in the same currency as the exercise price.

Newly listed entities

As noted above, an entity should consider historical volatility of the share price over the most recent period that is generally commensurate with the expected option term. If a newly listed entity does not have sufficient information on historical volatility, it should nevertheless compute historical volatility for the longest period for which trading activity is available. It could also consider the historical volatility of similar entities following a comparable period in their lives. For example, an entity that has been listed for only one year and grants options with an average expected life of five years might consider the pattern and level of historical volatility of entities in

the same industry that have been listed longer for the first six years in which the shares of those entities were publicly traded.

Expected dividends

Whether expected dividends should be taken into account when measuring the fair value of shares or options granted depends on whether the counterparty is entitled to dividends or dividend equivalents.

For example, if employees were granted options and are entitled to dividends on the underlying shares or dividend equivalents (which might be paid in cash or applied to reduce the exercise price) between grant date and exercise date, the options granted should be valued as if no dividends will be paid on the underlying shares, that is, the input for expected dividends should be zero.

Similarly, in estimating the grant date valuation of shares granted to employees, no adjustment is required for expected dividends if the employee is entitled to receive dividends paid during the vesting period.

Conversely, if the employees are not entitled to dividends or dividend equivalents during the vesting period (or before exercise, in the case of an option), the grant date valuation of the rights to shares or options should take expected dividends into account. That is to say, in estimating the fair value of an option grant, expected dividends should be included in the application of an option-pricing model. In estimating the fair value of a share grant, that valuation should be reduced by the present value of dividends expected to be paid during the vesting period.

Option-pricing models generally call for expected dividend yield. However, the models may be modified to use an expected dividend amount rather than a yield. An entity may use either its expected yield or its expected payments. If the entity uses the latter, it should consider its historical pattern of increases in dividends. For example, if an entity's policy has generally been to increase dividends by approximately 3 per cent per year, its estimated option value should not assume a fixed dividend amount throughout the expected life unless there is evidence that supports that assumption.

Generally, the assumption about expected dividends should be based on publicly available information. An entity that does not pay dividends and has no plans to do so should assume an expected dividend yield of zero. However, an emerging entity with no history of paying dividends might expect to begin paying dividends during the expected lives of its employee stock options. Those entities could use an average of their past dividend yield (zero) and the mean dividend yield of an appropriately comparable peer group.

Risk-free interest rate

The risk-free interest rate is the implied yield currently available on zero-coupon government issues with a remaining term equal to the expected term of the option being valued (based on the option's remaining contractual life and taking into account the effects of expected early exercise behaviours). It may be necessary to use an appropriate substitute, if no such government issues exist with a life equal to the expected term of the option being valued.

Capital structure effects

Typically, third parties, not the entity, write traded share options. When these share options are exercised, the writer delivers shares to the option holder. Those shares are acquired from existing shareholders. Hence the exercise of traded share options has no dilutive effect.

In contrast, if share options are written by the entity, new shares are issued when those share options are exercised (either actually issued or issued in substance, if shares previously repurchased and held in treasury are used). Given that the shares will be issued at the exercise price rather than the current market price at the date of exercise, this actual or potential dilution might reduce the share price, so that the option holder does not make as large a gain on exercise as on exercising an otherwise similar traded option that does not dilute the share price.

Whether this has a significant effect on the value of the share options granted depends on various factors, such as the number of new shares that will be issued on exercise of the options compared with the number of shares already on issue. Also, if the market already expects that the option grant will take place, the market may have already factored the potential dilution into the share price at the date of grant.

However, the entity should consider whether the possible dilutive effect of the future exercise of the share options granted might have an impact on their estimated fair value at grant date. Option-pricing models can be adapted to take into account this potential dilutive effect.