CL 201

SHARE-BASED PAYMENT: COMMENTS ON ED 2

Memorandum of comment submitted to the International Accounting Standards Board in March 2003 concerning Exposure Draft ED 2, Share-based payment, published by the International Accounting Standards Board in November 2002.

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INTRODUCTION

1. The Institute of Chartered Accountants in England and Wales welcomes the opportunity to respond to the International Accounting Standards Board ('the Board'), regarding Exposure Draft ED 2, 'Share-Based Payment', published by the Board for comment in November 2002.

2. We congratulate the Board on the development of an Exposure Draft based on general principles, which will assist with the understanding and implementation of the proposed standard. We note the inherent complexity in assessing and accounting for the fair value of share-based payments. The application of general principles greatly assists in dealing with this complexity.

3. We have reviewed the Exposure Draft and set out below a number of comments. We have identified first the major points before responding to the specific questions raised in the Exposure Draft.

MAJOR POINTS

Scope of the proposed standard

4. The IASB is proposing that its standard should apply equally to all individual entity financial statements and consolidated financial statements, regardless of whether for example the reporting entity is a wholly-owned subsidiary of a group that prepares consolidated financial statements or a parent company that also prepares consolidated financial statements. We agree that this approach is consistent with the principle of recognising a share-based payment in the financial statements of the entity which has received related goods or services.

5. However, it is inconsistent with current accounting practice. There are many examples where a holding company incurs expenditure on behalf of services consumed by a wholly-owned subsidiary, and it is currently considered acceptable for the charge to be absorbed by the parent and not recharged nor recorded as an investment in the relevant subsidiary with the latter recording a capital contribution. We do not agree that changes to current practice should be introduced on a piecemeal basis through changes relating to specific transactions within specific standards. We therefore recommend that the IASB should confirm it is acceptable to follow current practice within the context of ED 2 and should not introduce changes except in the wider context of a review of all transactions between parent companies and their subsidiaries.

6. We are also concerned that ED2 does not address the accounting for Employee Share Option Plan Trusts (ESOPs). ESOPs are not currently captured by SIC 12 due to the exclusion for employee benefit plans and thus they will not affect the consolidated financial statements. Nor do International Accounting Standards capture ESOPs as an extension of the sponsoring parent company in the manner achieved by UK GAAP (FRS 5 as interpreted by UITF Abstract 13). Thus options granted by an ESOP over its sponsoring parent's shares will not produce a charge against the parent's individual (or consolidated) profit and loss account. If an ESOP does not own any shares in the parent at the

time the ESOP grants the options, its granting of options over its parent's shares will not be explicitly caught by the provisions of paragraph 2 of ED 2. We recommend that the IASB should amend SIC 12 to include ESOPs. We also recommend that ED 2 should clearly state within the Financial Reporting Standard the effect of paragraph BC30 in relation to ESOPs. This will make it clear that, as an entity should account for the services received in return for equity instruments issued, an ESOP issuing such instruments is caught by the provisions of the ED. This will prevent a possible evasion of the standard.

7. We believe that it will not be cost effective to impose all of the requirements of the proposed standard on small companies. It is difficult to define those companies which we believe should benefit from such an exemption based on current IFRS. A quoted / unquoted allocation would not reflect the many unquoted companies that are substantial economic entities, which should comply with the proposed standard. However if the IASB develops an International version of the UK's Financial Reporting Standard for Smaller Entities (FRSSE) we believe that this could form the basis of an appropriate future exemption to be considered by the IASB.

Transitional Arrangements

8. Paragraph 54 of the proposed standard states that for equity-settled share-based payment transactions, the standard will be applied to grants of shares, options or other equity instruments that were granted after the publication of the Exposure Draft, that had not vested by the effective date of the standard.

9. We consider that where entities have the historical information available (such as, for example, SEC registrants that have been calculating information to disclose under SFAS 123), then full retrospective application of the standard should be allowed. This would provide more relevant figures in the financial statements in the first years of the proposed standard's application and would correlate with the IASB's principle of retrospective restatement wherever possible. We believe that the issue of consistency between entities can be resolved through clear disclosure of the alternative adopted within entities' financial statements.

Option pricing models

10. We note the complexity associated with arriving at a fair value of equity instruments granted, and the use of option pricing models. Paragraphs 22(a) and (b) refer to the use of a binomial model or the Black Scholes model. These models are complex and incorporate several variables and therefore require skill and care in applying them.

11. In our view, the examples included in the draft IFRS provide insufficient guidance on the application of option pricing models. Improved illustrations are required to show the processes involved in applying these models to support smaller companies dealing with these issues for the first time.

Incorporation of performance conditions

12. In our view, ED 2 as currently drafted may be read as allowing approaches for incorporating performance conditions that are fundamentally wrong from the point of view of option pricing theory and practice. Our concerns relate to paragraph 24 and Example 2 in Appendix B, which suggest that the fair value of an option grant can be simply adjusted to reflect the probability of the forfeiture. However, any adjustment to Black-Scholes value must take into account the relationship between achievement of performance conditions and underlying option value, and not just the probability of meeting performance conditions. We note that incorporating these conditions within the model may prove prohibitively expensive; however, using the alternative approach could lead to errors of the order of 30% - 50% in estimating the fair value of options, which could clearly be material. Therefore the standard should be clarified in relation to this aspect of fair value calculation. A possible way of achieving this clarification would be to explain the meaning of 'the weighted average probability that the specified performance target will be achieved'.

13. We have attached an appendix to this response which demonstrates the difference between applying the performance condition variable within the option pricing model and externally to the model (as illustrated).

Disclosure requirements

14. The disclosure requirements in paragraphs 45 to 53 are extensive and in our opinion incorporate the information required to understand the accounting implications of applying the proposed standard. However, illustrations in Appendix D could be improved.

15. We note that the illustration of disclosure provided by Appendix D is an integral part of the proposed standard. We consider that this will be used by many entities as a template for their own disclosures. Starting with an illustration that is clear and well presented will effectively set a standard for the future and will assist with comparability across international entities.

16. We consider the illustration should be improved, containing more information in tabular form, and focusing any narrative on explaining the impact of accounting for share-based payments on an entity's performance. The illustration should clearly identify the relationship between the fair value of options granted during the period, and the charge included in the profit and loss account of an entity. We are also aware that financial analysts have expressed a desire to see the fair value of options at an entity's reporting date. The models analysts use to value a company will focus on the value of external shareholders' equity, which means that the claims of employees who hold unvested options will need to be considered. In the light of this, the Board may wish to consider whether further disclosures are required.

Assumptions about future performance

17. We are concerned that the disclosure of various assumptions and variables in the pricing model will create problems for some companies. Regulators may impose conditions on forecasted information which would be inconsistent with the requirements of the standard, for example setting out predictions on whether EPS targets will be met under performance conditions. We recommend that the IASB should liaise with Regulators to evaluate the implications of the disclosures required by the draft IFRS.

Cash-settled and equity-settled options

18. Under the proposed standard, the required treatments of equity-settled and cash-settled share-based transactions will have very different effects on the accounts. We believe that the different treatments afforded them will highlight opportunities for arbitrage between cash- and equity-based settlements and thus have the capacity to drive corporate behaviour. This is undesirable in an accounting standard. We note that the information necessary to compare cash-settled with the equivalent equity-settled share-based payment is required by Paragraph 52 of the ED, which we believe will be very helpful to users. We recommend that this could be enhanced by splitting the reporting of the cash-based amounts in the new performance statement to identify the impact of the equity-settled payment and what is the annual re-measurement of the liability.

19. Disclosure of this nature will assist users of financial statements; however we note the discussion in the Basis for Conclusions, and accept that the IASB needs to deal urgently with share-based payments without necessarily waiting for further conceptual work on liabilities and equity. However, this work itself is urgent, and the IASB should be ready to review its standard on share-based payment as soon as the work is completed.

Cancellation of a grant of shares or options

20. In our view it is inconsistent to discontinue the charge to profit and loss account when the employee leaves but not when the entity cancels the grant. However, we accept that discontinuing the charge when the entity cancels the grant would leave scope for abuse. We recommend that where the entity cancels the grant, rather than continuing to charge over the period in which goods and services are rendered, the balance of the charge should be taken immediately to the profit and loss account.

IASB Question 1

21. Paragraphs 1-3 of the draft IFRS set out the proposed scope of the IFRS. There are no proposed exemptions, apart from for transactions within the scope of another IFRS.

Is the proposed scope appropriate? If not, which transactions should be excluded and why?

22. We recommend that where a parent issues shares or options on behalf of services received by a wholly-owned subsidiary then it is acceptable for the charge to be held against the profit and loss of the holding company. This is discussed in more detail in paragraphs 4 and 5 together with concerns regarding the accounting for ESOPs.

23. Subject to the above we consider the scope identifies the entities within it and consider this to be appropriate; however, we recommend that the illustrations should be improved to support smaller and unquoted companies in their use of option pricing models. We discuss this in more detail in paragraphs 10 and 11 above.

IASB Question 2

24. Paragraphs 4-6 of the draft IFRS propose requirements for the recognition of share-based payment transactions, including the recognition of an expense when the goods or services received or acquired are consumed.

Are these recognition requirements appropriate? If not, why not, or in which circumstances are the recognition requirements inappropriate?

25. We agree with the principles on which the proposed requirements are based. We discuss aspects of the recognition requirements in more detail in paragraphs 18 and 19.

IASB Question 3

26. For an equity-settled share-based payment transaction, the draft IFRS proposes that, in principle, the entity should measure the goods or services received, and the corresponding increase in equity, either directly, at the fair value of the goods or services received, or indirectly, by reference to the fair value of the equity instruments granted, whichever fair value is more readily determinable (paragraph 7). There are no exemptions to the requirement to measure share-based payment transactions at fair value. For example, there are no exemptions for unlisted entities.

Is this measurement principle appropriate? If not, why not, or in which circumstances is it not appropriate?

27. We agree with the measurement principle.

IASB Question 4

28. *If the fair value of the goods or services received in an equity-settled share-based payment transaction is measured directly, the draft IFRS proposes that fair value should be measured at the date when the entity obtains the goods or receives the services (paragraph 8).*

Do you agree that this is the appropriate date at which to measure the fair value of the goods or services received? If not, at which date should the fair value of the goods or services received be measured? Why?

29. We agree with the principles outlined to determine the date at which to measure the fair value of goods or services received.

IASB Question 5

30. *If the fair value of the goods or services received in an equity-settled share-based payment transaction is measured by reference to the fair value of the equity instruments granted, the draft IFRS proposes that the fair value of the equity instruments granted should be measured at grant date (paragraph 8).*

Do you agree that this is the appropriate date at which to measure the fair value of the equity instruments granted? If not, at which date should the fair value of the equity instruments granted be measured? Why?

31. We agree with grant date being used as the appropriate date to measure the fair value of the equity instruments granted.

IASB Question 6

32. *For equity-settled transactions with parties other than employees, the draft IFRS proposes a rebuttable presumption that the fair value of the goods or services received is more readily determinable than the fair value of the equity instruments granted (paragraphs 9 and 10).*

Do you agree that the fair value of the goods or services received is usually more readily determinable than the fair value of the equity instruments granted? In what circumstances is this not so?

33. There are a number of examples where it may be difficult to determine the fair value of services provided, particularly where it relates to the provision of 'intellectual capital' or 'added value'. The proposed standard states that there is a 'rebuttable presumption' that the most determinable fair value is based on the goods or services received and, therefore, provides for the situation where the goods cannot readily be measured. It then allows fair value to be calculated as the fair value of the equity instruments granted. We consider that the proposed standard should recommend the 'most reliable' approach to determining fair value of goods and services rather than providing a 'rebuttable presumption'.

IASB Question 7

34. For equity-settled transactions with employees, the draft IFRS proposes that the entity should measure the fair value of the employee services received by reference to the fair value of the equity instruments granted, because the latter fair value is more readily determinable (paragraphs 11 and 12).

Do you agree that the fair value of the equity instruments granted is more readily determinable than the fair value of the employee services received? Are there any circumstances in which this is not so?

35. We consider that there are circumstances where the fair value of employee services would be determinable, particularly where share-based payments are agreed for 'additional' services rendered by an employee. However, it is anticipated that these would be infrequent and that the fair value of the equity instrument granted would represent a reasonable assessment of the service received. We, therefore, agree with the approach adopted within the proposed standard.

IASB Question 8

36. Paragraphs 13 and 14 of the draft IFRS propose requirements for determining when the counterparty renders service for the equity instruments granted, based on whether the counterparty is required to complete a specified period of service before the equity instruments vest.

Do you agree that it is reasonable to presume that the services rendered by the counterparty as consideration for the equity instruments are received during the vesting period? If not, when are the services received, in your view?

37. We consider that it is a reasonable presumption that services rendered by the counter-party as consideration are received during the vesting period, but this may not always be the case. For example, options may be awarded as a bonus for past services, evidenced by the fact that the number of options is linked to a historical performance appraisal. In these circumstances, the implication is that the options represent partly a reward for past service and partly a payment for retaining the services over the vesting period. Furthermore, different arrangements are encountered in which, say, there are performance criteria attached to the first year of the vesting period but not in subsequent years. However we accept that any attempt to allocate share-based payments to past and future services would provide the opportunity for earnings manipulation and to undermine consistency. We therefore agree that the charge should be spread during the vesting period.

38. However, we suggest that the IASB considers allowing entities to recognise the substance of when services are rendered and received by the company when allocating the expense between the grant date and the vesting date.

IASB Question 9

39. *If the services received are measured by using the fair value of the equity instruments granted as a surrogate measure, the draft IFRS proposes that the entity should determine the amount to attribute to each unit of service received, by dividing the fair value of the equity instruments granted by the number of units of service expected to be received during the vesting period (paragraph 15).*

Do you agree that if the fair value of the equity instruments granted is used as a surrogate measure of the fair value of the services received, it is necessary to determine the amount to attribute to each unit of service received? If not, what alternative approach do you propose? If an entity is required to determine the amount to attribute to each unit of service received, do you agree that this should be calculated by dividing the fair value of the equity instruments granted by the number of units of services expected to be received during the vesting period? If not, what alternative method do you propose?

40. We agree with the principle of determining the fair value of each unit of service received. However, this is an area that could become unnecessarily complex with adjustments based on detailed employee records. We consider it reasonable to calculate the units of service based on the average number of related employees at the beginning and end of the year. This could be adjusted if necessary by weighting for specific circumstances that would skew the averages (for example, closure of a business unit causing redundancies early or late in the year).

41. We note the benefit of the unit of service approach is that it provides an adjustment to the fair value expensed each year based on actual events.

IASB Question 10

42. *In an equity-settled share-based payment transaction, the draft IFRS proposes that having recognised the services received, and a corresponding increase in equity, the entity should make no subsequent adjustment to total equity, even if the equity instruments granted do not vest or, in the case of options, the options are not exercised (paragraph 16). However, this requirement does not preclude the entity from recognising a transfer within equity, ie a transfer from one component of equity to another.*

Do you agree with this proposed requirement? If not, in what circumstances should an adjustment be made to total equity and why?

43. The proposed standard is based on the principle that the fair value of the instruments granted at the grant date is in consideration for the goods or services rendered. If the goods and services continue to be rendered, equity should not be adjusted.

IASB Question 11

44. *The draft IFRS proposes that the entity should measure the fair value of equity instruments granted, based on market prices if available, taking into account the terms and conditions of the grant (paragraph 17). In the absence of a market price, the draft IFRS proposes that the entity should estimate the fair value of options granted, by applying an option pricing model that takes into account various factors, namely the exercise price of the option, the life of the option, the current price of the underlying shares, the expected volatility of the share price, the dividends expected on the shares (where appropriate) and the risk-free interest rate for the life of the option (paragraph 20). Paragraph 23 of the proposed IFRS explains when it is appropriate to take into account expected dividends.*

Do you agree that an option pricing model should be applied to estimate the fair value of options granted? If not, by what other means should the fair value of the options be estimated? Are there circumstances in which it would be inappropriate or impracticable to take into account any of the factors listed above in applying an option pricing model?

45. We agree with the use of an option pricing model, but note our concerns over its use, as detailed in paragraphs 10 and 11 above.

IASB Question 12

46. *If an option is non-transferable, the draft IFRS proposes that the expected life of an option rather than its contracted life should be used in applying an option pricing model (paragraph 21). The draft IFRS also proposes requirements for options that are subject to vesting conditions and therefore cannot be exercised during the vesting period (paragraph 22).*

Do you agree that replacing an option's contracted life with its expected life when applying an option pricing model is an appropriate means of adjusting the option's fair value for the effects of non-transferability? If not, do you have an alternative suggestion? Is the proposed requirement for taking into account the inability to exercise an option during the vesting period appropriate?

47. We believe that replacing an option's contracted life with its expected life is a pragmatic approach to adjusting the model.

IASB Question 13

48. *If a grant of shares or options is conditional upon satisfying specified vesting conditions, the draft IFRS proposes that these conditions should be taken into account when an entity measures the fair value of the shares or options granted. In the case of options, vesting conditions should be taken into account either by incorporating them into the application of an option pricing model or by making an appropriate adjustment to the value produced by such a model (paragraph 24).*

Do you agree that vesting conditions should be taken into account when estimating the fair value of options or shares granted? If not, why not? Do you have any suggestions for how vesting conditions should be taken into account when estimating the fair value of shares or options granted?

49. We agree that vesting conditions should be taken into account when estimating fair value; however, these should be incorporated within the application of an option pricing model and not applied as adjustments to the value produced by such a model. We discuss this in more detail in paragraphs 10 and 11 above and in the appendix.

<u>IASB Question 14</u>

50. For options with a reload feature, the draft IFRS proposes that the reload feature should be taken into account, where practicable, when an entity measures the fair value of the options granted. However, if the reload feature is not taken into account in the measurement of the fair value of the options granted, then the reload option granted should be accounted for as a new option grant (paragraph 25).

Is this proposed requirement appropriate? If not, why not? Do you have an alternative proposal for dealing with options with reload features?

51. We believe that the proposed requirement is flexible and appropriate.

<u>IASB Question 15</u>

52. The draft IFRS proposes requirements for taking into account various features common to employee share options, such as non-transferability, inability to exercise the option during the vesting period, and vesting conditions (paragraphs 21-25).

Are there other common features of employee share options for which the IFRS should specify requirements?

53. No.

<u>IASB Question 16</u>

54. The draft IFRS does not contain prescriptive guidance on the estimation of the fair value of options, consistently with the Board's objective of setting principles-based standards and to allow for future developments in valuation methodologies.

Do you agree with this approach? Are there specific aspects of valuing options for which such guidance should be given?

55. We fully support the approach of the Board in developing a principles-based approach to the proposed standard.

IASB Question 17

56. *If an entity reprices a share option, or otherwise modifies the terms or conditions on which equity instruments were granted, the draft IFRS proposes that the entity should measure the incremental value granted upon repricing, and include that incremental value when measuring the services received. This means that the entity is required to recognise additional amounts for services received during the remainder of the vesting period, ie additional to the amounts recognised in respect of the original option grant. Example 3 in Appendix B illustrates this requirement. As shown in that example, the incremental value granted on repricing is treated as a new option grant, in addition to the original option grant. An alternative approach is also illustrated, whereby the two grants are averaged and spread over the remainder of the vesting period.*

Do you agree that the incremental value granted should be taken into account when measuring the services received, resulting in the recognition of additional amounts in the remainder of the vesting period? If not, how do you suggest repricing should be dealt with? Of the two methods illustrated in Example 3, which is more appropriate? Why?

57. We consider both of the two methods illustrated to be an acceptable approach to re-priced options.

IASB Question 18

58. *If an entity cancels a share or option grant during the vesting period (other than a grant cancelled by forfeiture when the vesting conditions are not satisfied), the draft IFRS proposes that the entity should continue to recognise the services rendered by the counterparty in the remainder of the vesting period, as if that grant had not been cancelled. The draft IFRS also proposes requirements for dealing with any payment made on cancellation and/or a grant of replacement options, and for the repurchase of vested equity instruments.*

Are the proposed requirements appropriate? If not, please explain why not and provide details of your suggested alternative approach.

59. In our view it is inconsistent to discontinue the charge to profit and loss account when the employee leaves but not when the entity cancels the grant. However, we accept that discontinuing the charge when the entity cancels the grant would leave scope for abuse. We recommend that where the entity cancels the grant, rather than continuing to charge over the period in which goods and services are rendered, the balance of the charge should be taken immediately to the profit and loss account.

60. We note that Paragraph 29(c) of the proposed standard allows companies to designate whether a new issue of options is a replacement of cancelled options. As there may be a substantial difference in accounting arising from this choice

we recommend that proper consideration of the transaction should be given and that the accounting should follow the substance of the transaction and not necessarily the designation of the company.

<u>IASB Question 19</u>

61. *For cash-settled share-based payment transactions, the draft IFRS proposes that the entity should measure the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the entity should remeasure the fair value of the liability at each reporting date, with any changes in value recognised in the income statement.*

Are the proposed requirements appropriate? If not, please provide details of your suggested alternative approach.

62. As set out in paragraphs 18 and 19 above, we are concerned at the results of applying different treatments to cash-settled and equity-settled share based payments The IASB should address the issue when considering changes to the performance statement, with a view to clarifying the different charges resulting from the accounting treatments of cash and equity based settlements.

<u>IASB Question 20</u>

63. *For share-based payment transactions in which either the entity or the supplier of goods or services may choose whether the entity settles the transaction in cash or by issuing equity instruments, the draft IFRS proposes that the entity should account for the transaction, or the components of that transaction, as a cash-settled share-based payment transaction if the entity has incurred a liability to settle in cash, or as an equity-settled share-based payment transaction if no such liability has been incurred. The draft IFRS proposes various requirements to apply this principle.*

Are the proposed requirements appropriate? If not, please provide details of your suggested alternative approach.

64. We consider the proposed requirements to be appropriate.

<u>IASB Question 21</u>

65. *The draft IFRS proposes that an entity should disclose information to enable users of financial statements to understand:*

(a) the nature and extent of share-based payment arrangements that existed during the period,

(b) how the fair value of the goods or services received, or the fair value of the equity instruments granted, during the period was determined, and

(c) *the effect of expenses arising from share-based payment transactions on the entity's profit or loss.*

Are these disclosure requirements appropriate? If not, which disclosure requirements do you suggest should be added, deleted or amended (and how)?

66. We agree that the disclosure requirements are appropriate. However, as set out in paragraphs 14 to 16 above, we consider the illustrations of the disclosures should be improved.

<u>IASB Question 22</u>

67. The draft IFRS proposes that an entity should apply the requirements of the IFRS to grants of equity instruments that were granted after the publication date of this Exposure Draft and had not vested at the effective date of the IFRS. It also proposes that an entity should apply retrospectively the requirements of the IFRS to liabilities existing at the effective date of the IFRS, except that the entity is not required to measure vested share appreciation rights (and similar liabilities) at fair value, but instead should measure such liabilities at their settlement amount (ie the amount that would have been paid on settlement of the liability had the counterparty demanded settlement at the date the liability is measured).

Are the proposed requirements appropriate? If not, please provide details of your suggestions for the IFRS's transitional provisions.

68. We consider that where a reasonable estimate of fair value can be obtained, full retrospective application of the proposed standard should be allowed. This is commented on in more detail in paragraphs 6 and 7.

<u>IASB Question 23</u>

69. The draft IFRS proposes a consequential amendment to IAS 12 (revised 2000) Income Taxes *to add an example to that standard illustrating how to account for the tax effects of share-based payment transactions. As shown in that example, it is proposed that all tax effects of share-based payment transactions should be recognised in the income statement.*

Are the proposed requirements appropriate?

70. Yes.

<u>IASB Question 24</u>

71. In developing the Exposure Draft, the Board considered how various issues are dealt with under the US standard SFAS 123 Accounting for Stock-Based Compensation, as explained further in the Basis for Conclusions. Although the draft IFRS is similar to SFAS 123 in many respects, there are some differences. The main differences include the following:

(a) *Apart from transactions within the scope of another IFRS, the draft IFRS does not propose any exemptions, either from the requirement to apply the IFRS or from the requirement to measure share-based payment transactions at fair value. SFAS 123 contains the following exemptions, none of which are included in the draft IFRS:*

- *employee share purchase plans are excluded from SFAS 123, provided specified criteria are met, such as the discount given to employees is relatively small;*

- *SFAS 123 encourages, but does not require, entities to apply its fair value measurement method to recognise transactions with employees; entities are permitted to apply instead the intrinsic value measurement method in Accounting Principles Board Opinion No. 25 Accounting for Stock Issued to Employees (paragraphs BC70-BC74 in the Basis for Conclusions give an explanation of intrinsic value); and*

- *unlisted (non-public) entities are permitted to apply the minimum value method when estimating the value of share options, which excludes from the valuation the effects of expected share price volatility (paragraphs BC75-BC78 in the Basis for Conclusions give an explanation of minimum value).*

(b) *For transactions in which equity instruments are granted to employees, both SFAS 123 and the draft IFRS have a measurement method that is based on the fair value of those equity instruments at grant date. However:*

- *under SFAS 123, the estimate of the fair value of an equity instrument at grant date is not reduced for the possibility of forfeiture due to failure to satisfy the vesting conditions, whereas the draft IFRS proposes that the possibility of forfeiture should be taken into account in making such an estimate.*

- *under SFAS 123, the transaction is measured at the fair value of the equity instruments issued. Because equity instruments are not regarded as issued until any specified vesting conditions have been satisfied, the transaction amount is ultimately measured at the number of vested equity instruments multiplied by the fair value of those equity instruments at grant date. Hence, any amounts recognised for employee services received during the vesting period will be subsequently reversed if the equity instruments granted are forfeited. Under the draft IFRS, the transaction is measured at the deemed fair value of the employee services received. The fair value of the equity instruments granted is used as a surrogate measure, to determine the deemed fair value of each unit of employee service received. The transaction amount is ultimately* *measured at the number of units of service received during the vesting period multiplied by the deemed fair value per unit of service. Hence, any amounts recognised for employee services received are not subsequently reversed, even if the equity instruments granted are forfeited.*

(c) *If, during the vesting period, an entity settles in cash a grant of equity instruments, under SFAS 123 those equity instruments are regarded as having immediately vested, and therefore the amount of compensation expense measured at grant date but not yet recognised is recognised immediately at the date of settlement. The draft IFRS does not require immediate recognition of an expense but instead proposes that the entity should continue to recognise the services received (and hence the resulting expense) over the remainder of the vesting period, as if that grant of equity instruments had not been cancelled.*

(d) *SFAS 123 does not specify a measurement date for transactions with parties other than employees that are measured at the fair value of the equity instruments issued. Emerging Issues Task Force Issue 96-18 Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services requires the fair value of the equity instruments issued to be measured at the earlier of (i) the date a performance commitment is reached or (ii) the date performance is complete. This date might be later than grant date, for example, if there is no performance commitment at grant date. Under the draft IFRS, the fair value of the equity instruments granted is measured at grant date in all cases.*

(e) *SFAS 123 requires liabilities for cash-settled share appreciation rights (SARs) to be measured using an intrinsic value measurement method. The draft IFRS proposes that such liabilities should be measured using a fair value measurement method, which includes the time value of the SARs, in the same way that options have time value (refer to paragraphs BC70-BC81 of the Basis for Conclusions for a discussion of intrinsic value, time value and fair value).*

(f) *For a share-based payment transaction in which equity instruments are granted, SFAS 123 requires realised tax benefits to be credited direct to equity as additional paid-in capital, to the extent that those tax benefits exceed the tax benefits on the total amount of compensation expense recognised in respect of that grant of equity instruments. The draft IFRS, in a consequential amendment to IAS 12 (revised 2000) Income Taxes, proposes that all tax effects of share-based payment transactions should be recognised in profit or loss, as part of tax expense.*

For each of the above differences, which treatment is the most appropriate? Why? If you regard neither treatment as appropriate, please provide details of your preferred treatment.

72. We generally agree that the approaches taken in the proposed IFRS are the more appropriate.

IASB Question 25

73. Do you have any other comments on the Exposure Draft?

74. No.

APPENDIX: Calculating fair values under ED 2

This note comments on the approximate method outlined in ED 2 for incorporation of the impact of performance conditions into a grant date fair value.

In summary it is our view that, as currently drafted, ED 2 may be read as allowing approaches for incorporating performance conditions that are fundamentally wrong from the point of view of option pricing theory and practice. Use of these approaches could lead to errors of the order of 30% - 50% in estimating the fair value of options, which could clearly be material. Therefore the standard should be clarified in relation to this aspect of fair value calculation.

Incorporation of performance conditions

Paragraph 24 of ED 2 states that:

> *Vesting conditions shall be taken into account either by incorporating them into the application of an option pricing model or by making an appropriate adjustment to the value produced by such a model.*

Example 2 in Appendix B illustrates how an adjustment may be made to an option pricing model to allow for performance conditions. In essence the following formula is used:

$$\textit{Option value} = P_{service} \times P_{performance} \times \textit{Black-Scholes value}$$

Where $P_{service}$ is the weighted average probability that employee will complete the required service period and $P_{performance}$ is the weighted average probability that the specified performance target will be achieved.

It is our concern that $P_{performance}$ could be interpreted simply as the probability of meeting the performance condition. Therefore, if the probability of meeting the performance condition is 50%, and the Black-Scholes value is 30% of grant price, the value allowing for performance conditions would be calculated as 50% x 30% = 15% of grant price. However, this is incorrect as the probability should also be weighted by the value of the option under different performance condition outcomes.

The more robust approach can be stylised as follows, in a situation where the option either vests fully or not at all based on a performance condition:

	A	B	C	A x B x C
Performance condition	**Probability**	**Average value of option**	**Vesting %**	**Weighted value**
Failed	50%	10%	0%	0%
Met	50%	50%	100%	25%
			Total	**25%**

The key point is that the average value of the underlying option will be greater in circumstances where the option vests than in circumstances where it does not. In the situation shown above, the average option value is 30% of grant price in the absence of performance conditions, and 25% with performance conditions. This compares with the approximate value of 15% obtained by just multiplying the Black-Scholes value by the probability of meeting the performance condition.

In general there will be a relationship between performance conditions being met and the value of the underlying option – more often than not, if performance conditions are failed then the underlying option will in any case have little value, because failure of performance conditions is likely to be associated with weak share price performance. Therefore, a performance condition that has, say, a 50% chance of being failed will generally reduce the option value by less than 50%.

Therefore, the average probability $P_{performance}$ should be weighted by both the vesting percentage AND the underlying option value under a range of outcomes.

The vast majority of performance conditions in common use can be built rigorously (and at reasonable cost) into an option pricing model such as a Monte-Carlo model to allow for this relationship between performance conditions and underlying option value. Any investment bank pricing a derivative with a performance condition would certainly take this relationship into account. Therefore, our view is that use of such a model should be the basis for calculating ED 2 charges unless materiality considerations or other potential estimation errors (for example with more esoteric non-financial performance measures) outweigh the greater accuracy of the rigorous approach.

The specific example referred to in Example 2 of Appendix B refers to a share price increase target. In this case there is a very clear relationship between meeting the performance condition and the value of the option. However, such a relationship will occur for the vast majority of performance conditions, for example:

- Outperformance of a peer group in Total Shareholder Returns terms will tend to be associated with strong share price growth and higher value of the underlying option
- Strong EPS growth will tend to be associated with strong share price growth

Quantitative analysis of impact

Below we illustrate the impact on valuation of using approximate versus robust approaches. We consider three types of performance condition:

1. The option vests in full if the entity's share price increases by 18% over the three year service period, and not at all if this level of share price growth is not achieved.
2. The option vests in full if the entity's EPS growth exceeds 10%pa in absolute terms over the three year service period, and not at all if this level of EPS growth is not achieved.
3. The option vests to 30% if the entity's TSR growth is median against a comparator group and 100% if the entity's TSR growth is upper quartile or above against a comparator group, with vesting increasing on a straight-line basis between these points. The option does not vest at all if TSR performance is below median.

The calculations are based on an entity with the following characteristics, which are not untypical for major UK companies:

Assumption	**Value**
Share price volatility	40%pa
Median share price growth	6%pa
Dividend yield	3%pa
Median EPS growth	10%pa
Volatility of EPS growth	10%pa
Correlation between EPS growth and share price growth	50%
Comparator company share price volatility	40%
Correlation between entity and comparator TSR	50%

Options are valued on a 6 year expected life using a risk-free interest rate of 4.5%. All option values are expressed as a percentage of the grant price. Employee forfeitures are assumed to be nil.

Condition1

Median share price increase over three years is 3 x 6% = 18%, and so the probability of meeting the performance condition of 18% share price increase is exactly 50%.

The Black-Scholes value of the option without performance conditions is 34%.

Therefore the approximate adjusted value is 50% x 34% = 17%.

This can be compared with a rigorous value calculated using a Monte-Carlo model of 27%.

Condition 2

Median EPS growth over three years is 10%pa, and so the probability of meeting the performance condition is exactly 50%.

The Black-Scholes value of the option without performance conditions is 34%.

Therefore the approximate adjusted value is 17%.

This can be compared with a rigorous value calculated using a Monte-Carlo model of 26%.

Condition 3

Assuming that all outcomes for TSR rank for the entity are equally likely (which will be true if all the comparator company shares are fairly priced) then the probability of vesting, weighted by the percentage of options vesting, can be estimated by calculating the "area under the curve" of the performance condition. That is:

Ranking	**Probability**	**Average vesting %**	**Weighted vest %**
Below median	50%	0%	0%
Median to upper quartile	25%	65%*	16.25%
Upper quartile	25%	100%	25%
		Overall average	**41.25%**

*=(30% + 100%)/2

The Black-Scholes value of the option without performance conditions is 34%.

Therefore the approximate adjusted value is 41.25% x 34% = 14%

This can be compared with a rigorous value calculated using a Monte-Carlo model of 27%.

Summary

The table below compares the approximate adjusted values with the rigorous Monte-Carlo values and also shows the percentage error in using the approximate method. Coincidentally the rigorous value under each of these performance conditions is very similar. The level of error in using the approximate approach could clearly be material, and therefore in many cases use of Black-Scholes with an ad-hoc adjustment is unlikely to be acceptable.

Condition	Approximate value*	Rigorous value	% Error in approximation
1. share price target	17%	27%	37%
2. EPS target	17%	26%	35%
3. TSR ranking	14%	27%	48%

*as percentage of share price at grant

In conclusion then, any adjustment to Black-Scholes value must take into account the relationship between achievement of performance conditions and underlying option value, and not just the probability of meeting performance conditions. The wording of ED 2 should be clarified in this respect.