ED2 'Share-based Payment'

Response of Watson Wyatt LLP

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6 March 2003

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This is our response to the IASB Exposure Draft ED2, written in the following sections.

1 Introduction

About us

1.1 Watson Wyatt LLP is the European business of Watson Wyatt Worldwide. We are a partnership of actuaries, remuneration and benefits consultants. As stated in our website (www.watsonwyatt.com), our work is about combining our collective expertise in human capital and finance to deliver business solutions that drive shareholder value.

1.2 We have some 90 offices worldwide. We work in the areas of employee remuneration and benefits, including share plans, pensions, actuarial valuation and financial economics including share option pricing. Our clients are major corporations, smaller companies, public bodies and other.

1.3 We are not an accountancy firm, but believe that our business skills make us well qualified to comment on accounting for share-based payment.

1.4 For the purpose of this paper we have used the term 'share incentive award' or 'award' to mean the award of a share (for example under a performance share or restricted share plan), a share option or a cash-settled equivalent to one of these. The term ‘share plan’ refers to the entire arrangement from award to delivery.

1.5 Prior to publication of ED2, we had already developed our valuation methodology, called Present Economic Value (PEV), for share incentive work for clients. The underlying principles of PEV are:

- market-consistent valuation;
- based on the Merton-Black-Scholes principle of dynamic hedging;
- identical valuation to Black-Scholes when valuing options that Black-Scholes values correctly;
- extends Black-Scholes to specific features of share incentive awards to employees that Black-Scholes does not address;
- a 'best-of-breed' valuation to deal with all aspects of company share incentive awards.

1.6 The concepts discussed in the Implementation Guidance are essentially the same as those that we have considered in the development of PEV. Consequently we are pleased that PEV is exactly suited for use by companies for the future reporting that is proposed.

1.7 However we recognise that many companies, as preparers of accounts, will not welcome these proposals. We believe that a consequence of imposing new charges against reported profits could be changes in the nature and extent of share incentive awards made in future.

Recognition

1.8 We discuss detailed aspects of cost recognition on the assumption that the basic thrust of ED2 (namely that there should be cost recognition in the accounts) will be implemented. We do not express a preference on this much-publicised and discussed issue.

Inconsistencies

1.9 We note that the implementation of ED2 would introduce several inconsistencies in practice in the general area of accounting for employee benefits, namely:

- re-measurement of cash-settled awards but not equity-settled ones subsequent to the grant date;
- differences between cost recognition of cash-settled share awards and pension liabilities under IAS19, as it presently stands;
- differences between cost recognition of cash-settled share awards and pension plans under IAS19, as it would be if aligned with the UK pension standard FRS17;
- differences between ED2 and FAS123;
- differences between rules on cost recognition in alternative contingencies.

1.10 We suggest how to align the relevant accounting rules to reduce or eliminate unnecessary inconsistencies, including vis-à-vis pensions because these are all employee benefits.

Valuation

1.11 We draw on our development of PEV to comment on the draft guidance on measurement of fair value, with regard to early exercise behaviour, performance conditions and volatility assumptions.

2 Equity-settled versus cash-settled

2.1 In this Section we argue that equity-settled and cash-settled awards should be recorded in the financial accounts using the same, not different, principles.

2.2 We note the logic in the Basis for Conclusions as to why different accounting treatments should apply. However, cash settlement is often an alternative to equity settlement for largely administrative reasons and the two approaches are, or can be, substantially equivalent in their economic substance.

Hypothetical example

2.3 Consider a hypothetical share incentive plan which, for local legal or tax reasons, is divided into two sections labelled E and C for employees in different territories. The two sections are identical in all aspects except that awards under E are equity-settled options backed by share purchase and those under C are cash-settled stock appreciation rights. According to ED2, the same fair value would be placed on an award at grant in each section, and the same principles would apply for accruing the cost over the vesting period. But the section C cost would be marked-to-market each year whilst the section E cost would not. After vesting date there would be no further charge for section E awards, whilst section C awards would continue to incur gains or losses against earnings until they were exercised.

2.4 If awards C and E are economically equivalent, it seems strange that the charges for services rendered in any year after the year of grant will differ depending on which of C and E is applicable.

Economic equivalence

2.5 Disregarding possible tax and other legislative requirements, E is economically equivalent to C, the cash plan, if:

- the company provides the shares for E by purchase from the market,
- the employees buy their shares from the company and sell at full market price, and
- all these transactions take place effectively at the date of exercise.

2.6 Similarly C is economically equivalent to E, the plan that delivers equity, if:

- the company pays the stock appreciation gain in cash,
- the employees apply the cash received at exercise plus an amount equivalent to the exercise price to buy the company’s shares, and
- both transactions take place effectively at the date of exercise.

2.7 A commonsense view of the matter is that substantially equivalent benefits should be reported in substantially the same way – whether the award is satisfied by a cash payment, with shares purchased in the market or with shares newly issued for the purpose.

Hedging

2.8 In principle, option plans and performance share plans can be delta-hedged. If the hedging is done effectively then any gain or loss in the economic value of the benefit during the life of the option plan will be negated by the corresponding loss or gain on the dynamically changing hedge portfolio. Then the initial value of the hedge portfolio equates to the economic value of the award at grant date.

2.9 It would be logical for the financial reporting of hedged share awards to work in a similar way. But that gives rise to two issues:

- share price variations in relation to an unhedged cash-settled award would be reported in accordance with ED2 as if they were a variation to cost of employee services, which we think they are not, and
- inconsistencies may appear in relation to accounting for a hedge portfolio, because the hedging can be applied to either an equity-settled or a cash-settled plan but the ED2 accounting treatment of these differs.

Other points

2.10 There may be some grey areas at the interface between the two types of settlement. Different accounting rules for substantially equivalent benefits probably offer scope for creative definitions and benefit designs to minimise accounting charge.

Alternative proposal

2.11 These observations suggest the need for an alternative and more integrated solution, one that aligns the accounting rules for both types of share based payment as far as possible. A possible alternative treatment is discussed in Section 3 below.

3 Cash-settled versus pension liabilities

3.1 In this Section we compare ED2 with pension accounting principles and identify key differences. We note that application of FRS17 principles would be a way to achieve consistent accounting for equity- and cash-settled awards.

Pension accounting standards

3.2 There is a close analogy between the liabilities of companies to settle share incentive awards in cash and their liabilities to pay pensions on defined scales. Both are employee benefits paid in cash amounts that are pre-determined on a formula basis.

3.3 Indeed the distinction between the two types of employee benefit can be blurred. Consider a new hypothetical employee benefit that is a final salary-related pension with accrual rate depending on the company's share performance. Is this an equity investment within the ambit of ED2? Or is it a pension benefit with an equity linkage? The accounting treatment may differ according to the answer.

3.4 Therefore we have reviewed the basic similarities and differences between:

- ED2
- IAS19 on pensions, and
- FRS17, the UK pensions standard.

IAS19

3.5 IAS19 charges pension costs, including gains and losses, to earnings but permits deferred recognition of the gains and losses via mechanisms of 'recognition corridor' and amortisation. We understand that IASB is reviewing IAS19 with regard, among other considerations, to its differences with FRS17, which does not use either the corridor or amortisation.

3.6 **FRS17**

FRS17 makes a distinction between:

- the normal pension cost to be charged against operating income,
- a financing item arising from interest and expected asset returns,
- 'normal' gains and losses of experience relative to assumptions to be reported in the statement of recognised gains and losses (STRGL), and

- exceptional gains and losses, for example net asset/liability impact of a business disposal on pension costs, to be reported against operating income.

3.7 A related proposal is to append the STRGL to the profit & loss account to produce a three-level 'performance statement'. Whether or not this proposal is adopted, FRS17 causes all the market variance in the valuation of accrued pension liabilities to figure in the balance sheet.

Recognition of gains and losses

3.8 The following table summarises the essential differences with regard to variation of experience from assumptions, including market value changes.

	Equity-settled share plans	**Cash-settled share plans**	**Pensions (FRS17)**	**Pensions (IAS19)**
Mark to market after grant	N	Y	Y	Y
Recognise gains and losses	N	Y	Y	Y
Charge normal gains and losses to earnings	-	Y	N	Y
Defer recognition	-	N	N	Y

3.9 The table shows some basic inconsistencies between accounting for share awards and pensions. But these are all employee benefits, differing merely in benefit formula and time-frame.

Apply FRS17 principles to cash-settled plans?

3.10 If the proposed IFRS were to follow FRS17 pension reporting principles, a cash-settled share incentive award would be reported thus:

- a basic cost equal to that of the equivalent equity-settled plan, to be charged against operating income during the vesting period (and no re-measurement of this basic charge after vesting);
- a possible financing item particularly if there is an employee trust fund, and
- re-measurement gains and losses to be reported in the STRGL;

- exceptional gains and losses, such as on disposal of a business when patterns of option exercise and forfeiture are altered, to be reported against operating income.

3.11 The financial effects of not hedging would be then reported in the STRGL, not against operating income and therefore not as if they were a cost of employee services (thus dealing with the first point mentioned in 2.9).

Apply FRS17 principles to equity-settled plans?

3.12 In Section 1 we argued that equity-settled and cash-settled awards should be reported under the same accounting rules as far as possible. If the proposed IFRS were to follow FRS17 pension reporting principles for equity-settled plans as well, that would meet our point. Re-measurement gains and losses would go through the STRGL, not the P&L account. We understand that re-measurement of equity interests in the balance sheet would be in opposition to Framework accounting concepts, but we question whether this is an obstacle or whether there might be a more fundamental question here about whether an equity derivative should be treated as if it were true equity ownership.

Business sales

3.13 ED2 does not adequately address the special situations that can arise on a business sale. Alignment with FRS17 principles would address the issue directly, as above. In Section 5 we comment on the related forfeiture and cancellation provisions of ED2.

Summary

3.14 If both ED2 and IAS19 were aligned with FRS17 principles there would be substantial consistency between:

- accounting for equity- and cash-settled share awards, and
- accounting for share awards and for pension liabilities.
- accounting for normal and exceptional gains and losses.

3.15 ***Therefore, if IAS19 is amended to align with FRS17 pension accounting principles, then we advocate that those same principles be applied to accounting for all share-based payments.***

4 ED2 versus FAS123

4.1 In this Section we review certain differences between ED2 as applicable to equity-settled plans and the equivalent US standard FAS123. The differences concern:

- forfeiture of awards on leaving service before vesting; and
- performance vesting conditions.

4.2 We understand that these differences result from the ED2 focus on assessing cost of employee services at grant date, whilst the FAS123 'modified grant date approach' allows for the truing-up of cost estimates by vesting date.

Forfeiture

4.3 ED2 calls for a best estimate as at grant date of the proportion of awards that will be forfeited. Any divergence between actual and expected years of employee service is recognised in subsequent periods to date of vesting, but there is no reversal of the expense charged for the value of employee services rendered in a preceding period.

4.4 In contrast, FAS123 does not require such initial assumption but instead provides for reversal (or truing-up) of prior year 'errors' in cost recognition by the end of vesting period. In this respect, FAS123 is 'assumption-free', in the sense that the total cost charged over the vesting period depends on the actual forfeitures but not on any assumptions about forfeitures.

4.5 ED2, however, is not assumption-free. If the departure rate of plan participants up to the vesting date is over-estimated, the aggregate value of the awards will be under-estimated and this will result in too low a value of the unit service cost. This in turn will tend to understate the costs charged, especially in the earlier years of vesting. ED2 opens up an incentive for preparers of accounts to assume high turnover rates before vesting. FAS123 does not.

Performance vesting

4.6 A similar point applies in relation to performance conditions for the vesting of equity-settled awards. FAS123 is 'assumption-free', in the sense that the total cost charged over the vesting period depends on whether or not the award actually vests, not on any assumptions about likelihood of performance conditions being met.

4.7 ED2 calls for a reasonable allowance as at grant date for the likelihood of performance conditions being achieved. There is no adjustment in any subsequent year before vesting for changes in that likelihood. Therefore the same total expense will be reported whether or not the award actually vests. ED2 opens up an incentive for preparers of accounts to understate values allowing for performance conditions. FAS123 does not.

Summary

4.8 The advantages of the FAS123 'modified grant date' approach are:

- Reduces the ED2 reliance on valuation model and assumptions – estimation errors would affect only the timing of cost recognition during the vesting period, not the aggregate charge.
- Improves alignment of accounting rules between equity-settled and cash-settled plans, in accordance with our recommendation in Section 2.
- Assists harmonisation with FAS123 or its FAS successor.

4.9 We understand the ED2 proposal in relation to equity-settled plans, which is to measure the cost of services rendered. In relation to forfeiture on leaving service we do not think the case is made that an assumption-based measure is the better solution. The economic reality is that some employees leave service before vesting and the others do not, and the average value of services rendered by an employee in each reporting period before vesting date is undoubtedly correlated with the individual outcomes of leaving service or not.

4.10 In relation to performance conditions, we would make the same point. The economic reality is that employees who stay until vesting date will either benefit from the performance vesting conditions or they will not, and the value of services rendered by all such employees over the vesting period is undoubtedly correlated with the emerging outcome of the performance test.

4.11 ***We advocate adoption of the 'modified grant date' approach in relation to forfeiture in equity-settled plans (both on leaving service and on failure to meet performance conditions). Best estimate assumptions should be made as at grant and then trued-up by vesting date.***

5 Recognition

5.1 In this Section we review the proposed recognition rules for contingent events in equity-settled plans, we note some further inconsistencies and suggest a more consistent approach. For this purpose we do not presume that our proposal in 3.12 (to apply FRS17 reporting principles) will be adopted, but all our proposals are of course compatible.

Contingencies

5.2 We note that the following contingencies are identified in ED2:

- forfeiture of benefit before vesting, for reasons of leaving service or failing performance conditions;
- repricing of share option;
- cancellation of benefit.

5.3 We see no direct reference in ED2 to the contingency of business sales and other curtailments. We add this to the list.

Changes of recognition status

5.4 ED2 proposes certain changes to the recognition status in the various contingency events. These types of change are discussed in ED2:

- adjust past recognition;
- cancel future recognition;
- accelerate expected future recognition to immediate recognition.

5.5 The following table summarises the proposed recognition changes in relation to equity-settled plans.

Recognition changes in equity-settled plans			
Event	**Adjust past recognition**	**Cancel future recognition (of initial grant)**	**Accelerate future recognition**
Forfeiture	N	Y	N
Repricing	N	N	N
Cancellation	N	N	N
Business sale	?	?	?

5.6 These rules are now reviewed in turn.

Forfeiture

5.7 In relation to forfeiture on leaving service, the ED2 concept of unit service attribution appears to follow logically from the specified principles. But it is an elaborate approach to a straightforward issue, and as we noted in Section 4 it does not necessarily confer accuracy because of the scope for selection of assumptions that affect results. An inappropriate assumption about forfeiture rates will confer inaccuracy.

5.8 The advantage of adopting the alternative 'modified grant date' approach of FAS123 is that the aggregate charge becomes trued up at vesting date and does not depend on any initial assumption about forfeitures. Therefore no such assumption has to be made. But not allowing for forfeitures is equivalent to assuming that there will be none, which is almost certainly an unrealistic assumption.

5.9 We therefore offer this variant of the 'modified grant date' approach as the best solution. ***A best estimate assumption is made about forfeitures, as proposed in ED2, but the aggregate cost charged in the vesting period is trued-up to actual forfeiture experience by the end of that period, as in FAS123.***

5.10 We are therefore proposing that forfeitures should give rise to adjustment (upwards or downwards) of past recognition, in agreement with FAS123 but not with ED2. In applying this compromise solution the apparent precision of the ED2 unit cost allocation would be an unnecessary complication. It could be replaced by simple straight-line recognition as from grant date, because the aggregate cost will in any case be trued-up to actual experience of forfeiture prior to vesting period.

5.11 In relation to forfeiture on failure to meet performance conditions we similarly advocate truing-up (upwards or downwards) by adjustment of past recognition. So the total recognition over vesting period will be equal to the value at grant date taking account of the actual result of the performance test, not its likelihood. (See also 4.10)

Repricing

5.12 ED2 proposes that the incremental value of a repriced option should be added to the continued recognition of the original grant, for reasons explained in BC208 to 216.

5.13 But in typical circumstances of share price decline and repricing the original deal has no continuing relevance as a measure of services subsequently provided. We therefore believe that the reality of repricing is then the 'new deal' mentioned in BC215.

5.14 In typical circumstances, options are not granted in the expectation that they will be repriced if the share price falls. To that extent we think that the reasoning of BC216(b) is flawed, but we note that it does point to the distinction that may usefully be drawn between option grants where repricing may or may not reasonably be expected (for example based on past practice).

5.15 If repricing following a share price fall is foreseeable from custom and practice, or for more tangible reasons, then the argument of BC216(b) is relevant, namely that there was at grant an implicit cost of contingent repricing that should be recognised at the time of a re-pricing. Otherwise, if repricing following a share price fall was not foreseeable, then the employees could not have been providing their services in the expectation of contingent repricing and the alternative reasoning in BC215 applies. The policy on repricing in the event of a fall in share price should be stated in the disclosures, to forestall abuse of the type mentioned in BC219.

5.16 By analogy with the reload feature that is mentioned in BC216(b), ***we propose that the entity should decide, according to repricing expectations, between the two accounting treatments of either paragraph 28 or BC215, and that the choice should be stated in the disclosures.***

Cancellation

5.17 ED2 proposes that the expense should continue to be charged after a share award is cancelled, for reasons explained in BC217 to 221. That means that the proposed treatment of cancellation would differ from that of forfeiture, even though the two contingencies are almost identical.

5.18 BC 218 and 219 amount to saying that an employer might cancel not for any employment reason but only to reduce the subsequent charge to profits. But for the most part ED2 is not developed from practical points like that. If consistent application of the basic accounting principles leads to unwanted practical consequences, the basic principles that give rise to the effect might usefully be reviewed.

5.19 Repricing is a special case of the cancellation of an existing option combined with the grant of a new one. We disagree with the ED2 proposal on repricing and propose the modification that, where repricing is not foreseeable, the original option grant ceases to have relevance and its cost ceases to be recognised. In other words, the cancelled award should cease to be recognised.

5.20 ***In relation to cancellation of an award (other than as part of a foreseeable option repricing or in combination with a foreseeable new option grant), we think that the cancelled award should cease to be recognised in order to reflect the economic reality.***

Business sales and curtailments

5.21 We see no direct reference in ED2 to the contingency of business sales and other curtailments, for example resulting in mass redundancies. This is a contingency that cannot be built into the valuation at grant, and so the financial effects should be reported in the period of the sale event.

5.22 When employees are forced to leave their employer or company group because of a sale of their business, the following may happen:

- employees with vested options may exercise them earlier than otherwise, on departure from the employer or company group;
- share incentives may be allowed to vest and to be exercised immediately, even before the due vesting date; or
- share incentives may be forfeited before vesting, as on voluntary departure.

5.23 But the proposed rules on forfeiture and cancellation differ (both in ED2 and in our suggestion) and it may not be clear in particular circumstances of a business sale which rule is to be applied. In Section 3 we noted that the pensions accounting standards acknowledge the special circumstances of a business sale and its effect on benefit obligations and associated assets. ***We suggest that the proposed IFRS should be equally clear about the contingency of business sale or curtailment. If ED2 were aligned with FRS17 principles then clarity would be achieved along the lines of 3.10.***

5.24 The table in 5.5 is now re-stated incorporating the above suggestions, thus making an alternative proposal for the recognition rules.

	Recognition changes in equity-settled plans:		**proposed variant**
Event	**Adjust past recognition**	**Cancel future recognition (of initial grant)**	**Accelerate future recognition**
Forfeiture	Y	Y	N
Repricing	N	Y or N	N
Cancellation	N	Y	N
Business sale	N	N	Y

5.25 This table can be reviewed for consistency for the three types of change in recognition.

Adjust past recognition

5.26 We have proposed that past recognition should be reversed or adjusted on forfeiture, but we do not advocate adjustment in other circumstances where plainly the entity will have received services to which the past recognition relates. The special point about forfeiture is that this is a statistical feature about which assumptions can be made and later trued up to improve accuracy.

Cancel future recognition (of initial grant)

5.27 In our proposal, the future recognition would normally be cancelled where the award is itself either cancelled or, being an option, repriced. The exceptions would be:

- on a 'foreseeable repricing', the value of which had not been previously recognised, and
- on a business sale, where instead of cancelling future recognition it would be replaced by immediate recognition of the employee benefit effect of the decision to sell, consistent with pension accounting principles.

Accelerate future recognition

5.28 In our proposed variant, in most contingencies the future cost recognition is either cancelled or converted to immediate recognition. The only exception is the special case of 'foreseeable repricing', where recognition is neither cancelled nor brought forward.

Summary

5.29 ***We advocate:***

- ***reversal of estimation errors on forfeiture, consistent with the 'modified grant date' approach (see Section 4);***
- ***choice of accounting rule on re-pricing, coupled with disclosure;***
- ***cancellation of future recognition after cancellation of an award, consistent with the economic reality;***
- ***specific provision for the contingency of business sale or curtailment.***

6 Measurement of fair value

6.1 We have already noted that ED2 implies a valuation approach that, while not specifying any particular method, is closely aligned with Watson Wyatt's Present Economic Value (PEV). Therefore we are able to draw on our PEV work to point out aspects of the valuation specification (particularly in the Implementation Guidance) that could be improved to avoid manipulation by using a method and/or assumptions that give an unreasonable statement of expense. We suggest that this would improve consistency and comparability between entities.

The model for option exercise behaviour

6.2 ED2 requires disclosure of the 'expected life' of a share option. The IG gives guidance on how to determine expected life, with examples of factors to consider. The disclosure requirement implies the use of a model that treats options as having a fixed exercise date that is earlier than expiry date.

6.3 We agree that the disclosure of expected life is sensible but think that the guidance could be improved.

6.4 There are two basic circumstances of early exercise (ie exercise of an option before its expiry date):

- forced — because the recipient dies or leaves employment and the option must be exercised within a specified period;
- voluntary — because the recipient chooses to do so for personal reasons.

6.5 Forced exercise can be valued realistically at grant date by making an assumption on participant turnover rates. Alternatively, it is amenable to a fixed date assumption unless it is believed that that the turnover rate is dependent on share price performance.

6.6 Voluntary early exercise differs in that take-up rates depend on the extent to which an option is 'in-the-money'. We have found from our research that this factor combined with a rate of withdrawal is a strong predictor of the timing of option exercise. The IG suggests that volatility is a correlated factor: that may be so, but it is probably not strongly causal because no-one should exercise a volatile share option that is underwater. Instead, we suggest that the extent an option is 'in-the-money' is the causal factor that explains why more volatile shares may be exercised sooner.

6.7 These early exercise factors can be modelled realistically in the valuation. However, the detailed calculations are complex and can be simplified for valuations at grant. One way to simplify is to model early exercise behaviours realistically in some sample cases, to determine the values accordingly and then to determine a benchmark 'expected life' in a simpler Black-Scholes type calculation that gives the same values.

Then the ED2 expected life is calculated from the most relevant factors to give a best estimate of cost.

6.8 IG10 to 13 discuss factors that influence past experience, but we think that the discussion could be improved. Our particular concerns about the interpretation of the guidance as drafted are:

- The focus on past experience of average period to exercise may undervalue options. After a period of rising share prices, past experience of early exercise will tend to show a shorter waiting period on average than after less favourable market conditions. A lower period of expected option life will tend to produce a lower valuation than if the past history of option exercise had been more 'average', with employees waiting longer.

- There may be a natural tendency of preparers of accounts to seek justification for the shortest feasible expected life, in order to minimise reported cost.

- More guidance on the factors influencing early exercise, particularly leaving service and propensity to exercise when sufficiently in-the-money, should help to discourage over-simplistic and over-optimistic assumption-setting.

Allowance for performance conditions — correlation

6.9 IG34 (and BC172) suggest that one way to allow for performance conditions on the vesting of awards is to value them without performance condition and then multiply by a weighted average probability of attaining the performance condition. For example, if the Black–Scholes value were 38% of the face value of shares under option and the probability of passing the test 50%, the value of the option with performance condition might be taken as 50% of 38%, i.e. 19%.

6.10 This simple probability adjustment for performance conditions understates the true value, because scenarios of failing the test are correlated with poor share price performance and the option being out of the money. A better approach to the issue is equivalent to 'slicing up' the option value according to different levels of future share price, which is also equivalent to using a weighted probability as IG34 implies. This is illustrated below:

Share price growth by year three	**Slice of Black–Scholes value (% of face value)**	**Chance of passing the test**	**Slice of option value (% of face value)**
	(A)	(B)	(C) = (A) × (B)
Above 30%	24.6%	92%	22.6%
20%–30%	1.8%	67%	1.2%
10%–20%	1.8%	63%	1.1%
Nil to 10%	1.7%	50%	0.9%
-10% to nil	1.7%	48%	0.8%
Below -10%	6.4%	26%	1.7%
Total	**38.0%**		**28.3%**

6.11 To summarise the figures in this example:

- The Black–Scholes value is 38% (the total of column (A)) of the face value of the shares under option.
- The overall probability of passing the test is 50%, so a simple probability argument gives an option value of 19%.
- But the actual option value is 28% (the total of column (C)). It is significantly larger than 19% because of the correlation effect.

6.12 It will be unsatisfactory if the new standard permits calculations that are intrinsically flawed and which understate the true cost. In the absence of further guidance there will be a natural presumption that a simple probability adjustment will do – especially as the result will be an under-estimate. We suggest that there should be guidance about the 'weighted average probability' with particular regard to the weightings.

Allowance for performance conditions — traded comparators

6.13 ED2 mandates valuation using an option pricing model such as Black-Scholes or the binomial model. We think this implies acceptance of the fundamental principles (established by Merton- Black-Scholes) of derivative pricing.

6.14 An option with a performance test that is based on a traded variable (such as the level of an index, or total shareholder return on other shares) is in effect a derivative on two variables, the company's share price and the traded comparator.

6.15 The market-consistent valuation of any derivative is based on either of these two equivalent principles:

- identify the present capital value of a hedging strategy in the underlying asset that mimics the payoff of the derivative, or
- value the expected payoff using special 'risk-neutral' probabilities and the risk-free discount rate.

6.16 We can apply these principles for valuation of an option with a traded comparator, on the grounds that any other valuation would be off-market and erroneous, just as if a standard European traded option were valued at an amount other than the result of the Black-Scholes formula.

6.17 ED2 does not specifically address this point. Our question is:

- Is it intended that ED2 should mandate market-consistent treatment of traded comparator tests?
- If yes, then why not say so?
- If no, then why allow such inconsistency with the underlying principles of option valuation?

6.18 ED2 quotes Example 2 where the performance test is an 18% increase in share price over three years. In principle, such a derivative can be perfectly hedged. Hence its market-consistent value is independent of the entity's (or anyone's) view on likely future share price growth. It is therefore also independent of the entity's view on the probability of passing the performance test. We have already pointed out that the 'weighted average probability' is not the same as a simple probability. Our further point is that the relevant probability measure flows from the option-pricing model (particularly the assumed volatility) and not from the business outlook.

6.19 Example 2 seems to allow the entity to take a view on its share price, which can only make sense if it has superior knowledge and/or believes that the market is pricing its share inefficiently or incorrectly. Is it really intended that ED2 will support such subjective view-taking? If so then will ED2 allow the same views to be taken in relation to the entirety of the option valuation, not just the adjustment for performance conditions? For example, many companies have greatly reduced share prices and feel uncomfortable with pricing options now on the assumption that these very low prices are reasonable for the purpose. Will ED2 allow subjective adjustment for expected market correction of the share price? We suggest that the answers to these questions should be made clear in the IFRS.

Volatility assumptions

6.20 Finally, we comment on the draft guidance on establishing the share price volatility assumption.

6.21 IG21 emphasises historic volatility as a basis for estimating the expected volatility. We suggest that the guidance should emphasise the relevance of implied volatility from any traded option on the company's shares. If there have been recent major changes in the business (such as altered gearing of its capital base) then implied volatility ought to give a better estimate. (This is subject to considering the future period for which the estimate is to be applied, which will typically be longer than that of the asset). Implied volatility can also sometimes be derived from other assets with optionality features such as convertibles.

6.22 The glossary defines volatility without reference to currency, which is a consideration in global share incentive plans. Historical volatility should be estimated based on prices converted to the currency in which the option exercise price is fixed. This could be stated.

Summary

6.23 ***The IFRS and Implementation Guidance should be sharpened in the following respects:***

- ***exercise behaviour (see 6.8)***
- ***allowance for performance conditions (see 6.12 and 6.19)***
- ***'out-guessing' the market (see 6.19)***
- ***volatility (see 6.21 and 6.22).***

7 Summary of our response

7.1 In Section 2 we argued for an alternative and more integrated solution that aligns the accounting rules for equity- and cash-settled plans as far as possible.

7.2 In Section 3 we pointed to advantages of achieving consistency with pension accounting standards. If IAS19 is amended to align with FRS17 pension accounting principles then we advocate that those same principles be applied to accounting for all share-based payments, thus providing the alignment proposed in Section 2.

7.3 In Section 4 we advocate adoption of the FAS123 'modified grant date' approach in relation to forfeiture and attainment of performance conditions.

7.4 In Section 5 we advocate different recognition rules in relation to forfeiture of benefit (either because of leaving service or failure to meet performance conditions), re-pricing, and cancellation. We also advocate specific provision for the contingency of business sale or curtailment.

7.5 In Section 6 we recommend that the IFRS and Implementation Guidance be sharpened in relation to aspects of valuation.

7.6 The recommendations at 7.3 and 7.4 are discussed in relation to equity-settled plans, irrespective of whether or not our points at 7.1 and 7.2 are taken. If IAS19 is aligned with FRS17 then gains and losses arising from truing-up assumptions about forfeiture and attainment of performance conditions can be dealt with via the Statement of Recognised Gains and Losses (STRGL). Cost variations from share price movements and other gains and losses in cash-settled plans can also be passed through the STRGL. Equity settled plans could be reported in exactly the same way, thus achieving the desirable goal of equal accounting treatment of all share-based payments, although this does imply re-measurement in the balance sheet after grant date.

7.7 We address specific questions from the Invitation to Comment in the following Appendix.

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6 March 2003

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A Response to selected questions

We have described our main points on ED2 in the preceding sections. We now comment on specific questions from those posed in the Invitation to Comment. As we are not an accountancy firm we refrain from comment on questions that are more directly concerned with accounting principles or that our analysis does not specifically address.

Q7 We agree that the fair value of the equity instruments granted is more readily determinable than the fair value of the services received.

Q8 We agree.

Q9 In 5.9 and 5.10 we suggest an alternative that we think is more suitable.

Q10 We believe that this accounting standard will have better resilience if the accounting of equity-settled transactions is aligned with that of cash-settled ones. (See Section 2)

Q11 We agree that an option-pricing model should be applied to estimate the fair value of options, and of other types of share incentive award such as performance share plans where the same factors mentioned are relevant.

Q12 We agree that use of an 'expected life' is an appropriate means of adjusting the value as at grant date of a non-transferable option. In Section 6 we point out that this parameter is open to wide choice and we indicate ways in which the IG could be improved to reduce the scope for unjustified choice.

Q13 We agree that vesting conditions should be taken into account when estimating the fair value of options and other share incentive awards. In Section 6 we point out two aspects (concerning correlation and traded comparators) where we think that the wording of both the standard and of the IG in relation to adjustment for performance conditions should be improved.

Q14 The reload feature, and other similar arrangements for contingent enhancement of options and other share incentive awards, can be valued at initial date of grant coupled with any necessary assumptions such as expected take-up. Option pricing models can be constructed to do this. The accounting policy on a reload feature (i.e. expense at either initial grant or exercise) should be disclosed.

Q15 No, we do not suggest other common features for which requirements should be specified, but we would point to a potential feature that is worth noting in the Basis for Conclusions. Various academic studies and anecdotal evidence all demonstrate the existence of a difference, often significant, between the fair valuation of an option grant from a shareholder and the typical employee perspective on the value. Employees would often tend to accept a lower cash payment in lieu. But a cash payment will not 'buy' for the employer the type of business alignment (employee retention, risk-taking or whatever) that the share-based payment is designed to elicit. Therefore such a lower cash alternative could not be expected to correctly measure the value of service rendered in return for the share-based payment. We suggest that it should be made clear that the employee perception of value of a share incentive award, whether or not it can be directly measured via an immediate cash alternative, is not a relevant factor.

Q16 We consider that the IG should be sharpened by incorporating the points we have made in Section 6 concerning the allowance to be made for:

- early exercise behaviour,
- performance conditions, and
- volatility.

Q17 No, we do not agree with a mandatory rule that the incremental value of a repriced option should be added to the continued recognition of the original grant. Instead we propose that the entity should decide, according to past practice and expectations, between the two accounting treatments of either paragraph 28 or BC215. If repricing following a share price fall is likely, then paragraph 28 should be applied. Otherwise the alternative treatment described in BC215 should be applied. The choice of accounting rule should be disclosed. (See 5.12 to 5.16).

Q18 We disagree. Our proposal for cancellation is that services after the cancellation date should normally not be recognised. (See 5.17 to 5.20)

Q19 Cash-settled transactions are in some ways qualitatively similar to pension benefits. If the pension standard IAS19 is brought into line with UK standard FRS17, as has been proposed, then we propose that the accounting for cash-settled plans should adopt the same principles. (See 3.10)

Q20 We envisage some grey areas – for example where the choice of settlement is partly mechanical, partly by choice. We have not explored the point in detail, as our fundamental belief is that there should be no difference in the accounting for equity-settled or cash-settled benefits.

Q21 We agree that these factors should be disclosed. However, some of the assumptions relating to expected outcome of performance conditions may be commercially sensitive so will have to be disclosed in general terms. In practice entities may prefer to report only the bare adjustment to a Black-Scholes value with minimal explanation, and to avoid more detailed disclosures. For example the illustration in Section 6 involves adjustment by a factor of 0.74, since 0.74 times 38% equals 28%. The entity might just disclose the adjustment factor of 0.74.

Any changes in assumptions from previous reporting periods should be disclosed.

Q22 We agree.

Q24 Differences with FAS123 are discussed in Section 4. Our specific answers on each point are:

- **a.** We prefer the IFRS treatment, which is not to permit any of these exemptions.
- **b.** We agree that the possibility of forfeiture should be taken into account in the value at grant, but otherwise we favour the FAS123 approach of truing-up assumptions to actual experience at vesting date in respect of forfeitures and attainment of performance conditions.
- **c.** The situation is that of a cancellation of the benefit accompanied by a cash payment. We propose that the cost of share award should cease to be recognised (see answer to Q18 above) and that the cash amount in excess of accrued cost of the share award should be charged. This is consistent with our position in answer to Q15.
- **d.** No comment.
- **e.** We agree with ED2.
- **f.** No comment.