STAFF PAPER

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IASB Meeting

Project	**Financial Instruments with Characteristics of Equity research project**
Paper topic	Attribution of profit or loss and other comprehensive income to derivative equity claims

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Introduction

1. In this meeting we discuss possible ways to attribute profit or loss and other comprehensive income to derivative claims classified as equity. This continues the Board's discussion of the same topic in April 2016.

2. For background and status of the project, please refer to the cover note for April 2016 (Agenda Paper 5). We will present an updated cover note, including next steps, at a future board meeting.

3. This paper is structured as follows:

   (a) Background and scope (paragraphs 4–9)

   (b) Staff analysis (paragraphs 10–22)

Background and scope

4. In April 2016 the Board considered potential approaches to the attribution of profit or loss and other comprehensive income to classes of equity claims other than ordinary shares (Agenda Paper 5B of April 2016). At that meeting, we noted that currently, no amounts are attributed to classes of equity other than non-controlling interests and parent equity interests. The advantage of attribution is that it would present in a single place the effect on ordinary shares of having other

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classes of equity outstanding. It would also result in the carrying amounts for each class of equity being updated for the amount of the attribution, similar to non-controlling interests. At the moment, information about the effects of some of these other equity claims is communicated through the calculation of basic earnings per share, and through the calculation of diluted earnings per share.

5. In April 2016, the Board agreed to use the existing requirements in IAS 33 *Earnings per Share* for the attribution for *non-derivative* equity claims.

6. For derivative equity claims, the Board discussed three approaches to attribution:

   (a) Approach A: No attribution for derivatives. Continue to provide information about the effect of derivative equity claims through diluted earnings per share and other disclosures.

   (b) Approach B: The full fair value approach. Attribute total profit or loss and other comprehensive income to derivatives based on changes in their fair value.

   (c) Approach C: The modified fair value approach. Attribute total profit or loss and other comprehensive income to derivatives based on changes in the *relative* fair values of derivatives to ordinary shares.

7. We illustrated the above approaches using a simple warrant that, if settled, would result in the entity receiving a fixed amount of cash in exchange for delivering a fixed number of shares. We assumed that such a warrant would be classified as equity under all three approaches we are considering.

8. In April 2016, we did not ask the Board to form a preliminary view, however we suggested that the forthcoming Discussion Paper should include a discussion of both Approaches B and C (Approach A being implicit as the status quo). At that meeting, the Board:

   (a) suggested an alternative way to calculate the attribution for derivatives; and

   (b) asked the staff to limit the variety of approaches to the attribution for derivatives classified as equity that might be proposed in a future Discussion Paper.

9. In this meeting we:

(a) explore the alternative approach to attribution suggested by the Board;

(b) ask the Board whether it would like to form a preliminary view; and

(c) set out how the approaches, other than the Board's preliminary view, might be presented in a future discussion paper.

Staff analysis

10. In April we illustrated an approach (Approach C of [Agenda Paper 5B]) to attribution which was a calculation based on relative fair values. The objective of that approach would be to end up with carrying amounts for derivatives and ordinary shares that depict the same ratios as their end of period fair values. The amount of profit or loss and other comprehensive income to be attributed to derivatives for the period *would be based on the amount required to achieve that objective.* Therefore, there are two primary parts of the calculation for Approach C, both based on period-end amounts:

(a) Determine the fair values of the derivatives and ordinary shares *at the end of the period*, calculate the ratio of fair values and determine what the carrying amounts should be to reflect the same ratio. In our example in paragraph 14, the fair values of the warrants and ordinary shares are CU10,000 and CU120,000 respectively. Given the ratio of the fair values, and a total carrying amount of CU100,000, the objective would be to end up with carrying amounts of CU7,700 for the derivatives and CU92,300 for the ordinary shares.

(b) Calculate the amount of attribution required to update the carryings amounts of each class. In our example, given an initial carrying amount of CU5,000, the amount of attribution required to update the carrying amount of the derivative would be CU2,700.

11. In April, one suggestion was that it might be better to attribute total profit or loss and other comprehensive income directly using average relative fair values during the period of attribution. The objective of such an approach would be to achieve a similar attribution to diluted earnings per share. However, instead of using the

strike price of the derivative as is used in IAS 33, the approach would use the fair value of the derivative, which would also reflect the time value of the option. The amount of profit or loss and other comprehensive income to be attributed to derivatives for the period *would be based on the relative average fair values.* No other attribution would be made to adjust the carrying values. For convenience we refer to this as Approach D: the *ordinary share equivalents approach*. There are two primary parts of the calculation for Approach D:

(a) Determine the *average* fair values of the derivatives and ordinary shares *for the period*, and calculate the ratios. We illustrate the approach in paragraph 13 using simple averages, but time-weighted averages might be more appropriate.

(b) Apply the ratios to the total profit or loss and other comprehensive income *for the period* to determine the amount that should be allocated to each class.

12. We illustrate Approach D, and compare it to Approach C, using the following example (which is the same as that used in April 2016):

At 1 January 20x0 an entity has recognised assets of CU180,000. The entity is funded by:

- Zero coupon bonds, with a carrying amount of CU100,000 with an effective interest rate of 5%, payable 20x5
- 1000 ordinary shares. The ordinary shares were originally issued for a total of CU10,000 and there is CU70,000 of retained earnings.

On 2 January 20x0, the entity issues warrants with the following terms:

- Exercise date 1 January 20x5 (European terms)
- Exercisable by the holder
- Exercise price of CU102 per share
- 1,000 shares to be delivered if exercised
- The entity receives CU5,000 in exchange for issuing the warrants on 2 January 20x0

(contd…)

During the year ending 31 December 20x0, the following other events occurred:

- income of CU20,000 was recognised on the entity's assets
- interest of CU5,000 accrued on the bonds

Other relevant information:

Fair value of shares on 1 January 20x0	CU100
Fair value of shares on 31 December 20x0	CU120
Simple average fair value of shares for the period	CU110
Fair value of warrant on 2 January 20x0	CU5,000
Fair value of warrant on 31 December 20x0	CU10,000
Simple average fair value of warrant for the period	CU7,500

13. Approach D—Ordinary share equivalents approach:

Income and expense for year ended 31 December 20x0

Income from assets	CU20,000
Less: Interest on ordinary bond	CU 5,000
Total income (expense)	**CU15,000**
Attributed to:	
Warrants	CU 957*
Ordinary shares	CU14,043
Basic earnings per share	CU14 per share
	(14,042/1,000)

***Workings (focusing on through the period calculations)**

Average *fair value of warrants and ordinary shares for the period*

Ordinary shares (1,000 x CU110)	CU110,000
Warrants (1,000 x CU7.5)	CU 7,500
Total fair value	CU117,500

(contd…)

Relative average fair value of warrants	
= CU7,500 / (CU117,500) = 0.063	
Total income (expense)	CU15,000
Total income (expense) attributable to warrants based on relative average fair value (CU15,000 * 0.063)	CU 957

14. Approach C—As depicted in April 2016:

Income and expense for year ended 31 December 20x0	
Income from assets	CU20,000
Less: Interest on ordinary bond	CU 5,000
Total income (expense)	**CU15,000**
Attributed to:	
Warrants	CU2,700*
Ordinary shares	CU12,300
Basic earnings per share	CU12.3 per share
	(12,300/1,000)
***Workings (focusing on period-end calculations)**	
Fair value of warrants and ordinary shares ***at the end of the period***	
Ordinary shares (1,000 x CU120)	CU120,000
Warrants (1,000 x CU10)	CU 10,000
Total fair value	CU130,000
Relative fair value of warrants = CU10,000 / (CU130,000) = 0.07	
Net assets attributable at end of period	CU100,000
Net assets attributable to warrants based on relative fair value (CU100,000 * 0.07)	CU7,700
Beginning carrying amount of warrants	CU5,000
Change in carrying amount	CU2,700

Comparison of the approaches

15. In April 2016, we noted that the main advantage of Approach B (the full fair value approach), was that it would provide the same information, and have the same effect on ordinary shares, as if the derivatives were classified as liabilities. At first glance, this would appear to meet the needs of those users who have advocated a narrow equity (or basic ownership instruments) approach to the distinction between liabilities and equity. However, at that meeting, we also noted that the main disadvantage of that approach would be that it would amplify the consequences of incomplete recognition and mixed measurement on the amount ultimately attributed to ordinary shares.

16. Because of the disadvantages of a full fair value approach, we explored an approach (Approach C), that was based on fair value, but modified to limit the consequences of a full fair value approach. Approach D is also a modified fair value approach that alleviates the same consequences, however the calculation has a different emphasis to Approach C:

    (a) Approach C focuses on the period-end fair values and carrying values. It calculates the amount of attribution required to update the carrying values so that they depict the same ratio as the year end fair values.

    (b) Approach D focuses on the average fair values and the total profit or loss and other comprehensive income for the period. It calculates the amount of attribution based on applying the ratio of the average fair values to the total profit or loss and other comprehensive income.

17. The method used in Approach C may not best depict the distribution of returns in the period because the changes in the carrying amounts will include catch-up and other adjustments. For example, in the illustrative example for Approach C, the amount attributed was CU2,700, which is the amount required to adjust the carrying amount from CU5,000 to CU7,700. The beginning carrying amount of the warrant, the CU5,000, is the fair value of the warrant on issue, not the relative fair value. So, the CU2,700 update to the carrying amount includes an amount that results from readjusting the carrying amount to get to a *relative* fair value carrying amount, in addition to any other changes in the period.

18. The method used in Approach D might better depict the distribution of returns in the period, because it would treat the warrants as common share equivalents based on their relative average fair value during the period. In other words, the method calculates the amount attributed to warrants as if they were replaced by the number of ordinary shares that would be issued in exchange for the warrants' average fair value during the period. For example, the amount attributed to the warrants in the illustrative example was CU957. This would be the same amount that would have been attributed to 68.18 additional ordinary shares, if they have been outstanding instead of the warrants. The 68.18 additional shares would be the amount of shares issued in exchange for the average fair value of the warrants during the period (ie CU7500/CU110).

19. Approach D might better depict the distribution of returns, however it would lose some of the meaning of the accumulated carrying amounts. Whereas in Approach C, the carrying amounts would have some meaning relative to each other, the modified approach would lose that benefit. For example, the updated carrying amount after the attribution for the warrant under Approach D would be CU5,957. This amount would have no meaning on its own, or in relation to the carrying amount of ordinary shares. Even if the fair value of the warrant at the end of the period was nil, Approach D would still attribute a value to the warrant, whereas Approach C would attribute a nil value. However, the carrying amount attributed to ordinary shares is not typically meaningful, nor is it the objective of financial reporting to show the value of all claims against the entity (paragraph OB7 of the Conceptual Framework for Financial Reporting).

Summary and conclusion

20. We summarise the potential approaches as follows:

    (a) Approach B (full fair value) is a direct measurement basis, however this approach amplifies the consequences of partial recognition and mixed measurement. Approach B would also provide equivalent information to a narrow equity approach.

(b) Approach C and Approach D are not measurement bases. Although they are based on the fair values of the warrants and ordinary shares, they are calculations that modify those amounts.

(c) The calculations for Approach C and Approach D alleviate the consequences of Approach B, however the calculation used in each will have other consequences as outlined in paragraphs 15–19. They will also be more costly than Approach B, because the fair value of ordinary shares will also be needed as an input, and for Approach D, the averaging may require additional fair values to be estimated.

(d) Approach C would provide new information that would supplement the diluted earnings per share calculation. However it would be difficult to justify the costs of calculating both the Approach D attribution and the diluted earnings per share given they are very similar.

21. If the Board does wish to set out a preliminary view, then we would still think that some discussion of the other approaches would be necessary in setting out the reasons why the Board reached its preliminary view. At a minimum, we think that the Board should include a discussion of Approach B (fair value) even if it would reject such an approach. This is because fair value would provide the same information as if the claim was classified as a liability, thus the information provided would be the same as a narrow equity approach (or basic ownership approach), which many users of financial statements advocate.

22. If the Board *does not* select Approach C or Approach D as its preliminary view, then we do not think that a detailed discussion of both of these approaches needs to be included in the Discussion Paper. Instead, the Discussion Paper could include one modified fair value approach, which we think would be sufficient to discuss the advantages and disadvantages of such approaches.

Questions for the Board

Does the Board wish to form a preliminary view for the attribution for *derivatives* classified as equity?

If the Board does not select Approach B (fair value) for its preliminary view, does the Board agree that a discussion of such an approach should be included in the forthcoming discussion paper along with the reasons why the Board rejected the approach?

If the Board does not select Approach C or D for its preliminary view, does the Board agree that a discussion of only one of these modified fair value approaches should be included in the Discussion Paper? If so, which approach does the Board prefer?