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Project	Financial Instruments: Hedge Accounting
Topic	Hedge accounting: hedges of credit risk using credit derivatives—the deemed credit adjustment approach

Introduction

1. This paper sets out another approach that the staff think that the Board could consider in providing an alternative to hedges of credit risk—the ‘deemed credit adjustment approach’. This paper describes this approach and sets out the staff analysis.
2. A comparison of this approach with the other two approaches (ie elective FVTPL and the insurance approach) as alternatives to hedge accounting is set out in agenda paper 16C. That paper also includes the questions to the Board.

The deemed credit adjustment approach

Overview

3. Under the deemed credit adjustment approach, a fair value of a CDS that matches the maturity of the hedged credit exposure¹ is computed—‘aligned’ CDS value. The change in fair value of the aligned CDS is treated as an adjustment to the

¹ In this paper references to ‘credit exposure’ mean an instrument that gives rise to credit risk (such as a loan, bond or loan commitment from the perspective of the lender or potential lender) and is managed for credit risk by using CDSs (ie the entity is the holder of those CDSs).

This paper has been prepared by the technical staff of the IFRS Foundation for discussion at a public meeting of the IASB.

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carrying amount of the credit exposure and recognised in profit or loss. The mechanics are similar to how in a fair value hedge the gain or loss on the hedged item attributable to a risk component adjusts the carrying amount of the hedged item and is recognised in profit or loss. Essentially, the cumulative change in fair value of the aligned CDS is *deemed* to be the credit risk component of the exposure in a fair value hedge of credit risk (ie acts as a *proxy* for credit risk).

4. Under this approach, a separate CDS value is required to be computed (for the aligned CDS).

Summary

5. The deemed credit adjustment approach retains the measurement of CDSs at fair value through profit or loss. An advantage of this is that the accounting for the CDS is not affected by any switches between periods for which the credit derivative is and is not used to manage a particular credit exposure (in contrast to the insurance approach).
6. Using aligned CDSs involves some complexity in their construction and does not allow all relevant characteristics of the credit exposure to be captured. Alternatively, an approach using a credit spread curve would be operationally even more difficult, require estimates of aspects such as draw down and prepayment behaviour and would require a liquid CDS market for a given 'name' (particular credit exposure) limiting its practical application.
7. However, the interaction with impairment accounting is significantly more complex than under the insurance approach because the deemed credit adjustment and the impairment allowance are 'competing mechanisms' in accounting for impairment losses. The interaction depends on the type of impairment model and would be more difficult in conjunction with an expected loss model.
8. When the deemed credit adjustment approach is discontinued before maturity of the credit exposure accounting similar to that for discontinued fair value hedges can be used for loans and bonds. For loan commitments the Board would have to decide whether to use an amortisation approach or leave the deemed credit adjustment unchanged until it is derecognised.

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Staff analysis of the deemed credit adjustment approach***Qualification and discontinuation criteria***

9. The staff consider that the same qualification and discontinuation criteria developed for elective FVTPL could also apply to this approach.
10. See paragraphs 11 to 14 of agenda paper 16A.

Measurement of the deemed credit adjustment*Using an aligned CDS*

11. Under a CDS contract, the protection buyer pays regular premiums on the notional amount of the contract. Over recent years the regular premiums or coupons have been standardised under the ISDA contracts to make CDS contracts more fungible to trade. The regular premiums known as coupons are paid quarterly and have standardised rates². Hence, standardised CDSs typically do *not* have a zero fair value when entered into but contain an upfront discount or premium.
12. The staff note that the credit exposures for which credit is managed do not have an equivalent to such a standardised coupon rate.
13. Hence, there are two alternatives for constructing the aligned CDS to calculate the deemed credit adjustment:
 - (a) alternative 1: based on the same terms and conditions as the managed credit exposure; or
 - (b) alternative 2: based on the same standardised coupon rate as the CDS.
14. **Alternative 1** is more closely aligned with hedge accounting because the calculation of the change in value is driven by the hedged item (ie reflects the characteristics of the hedged item instead of the hedging instrument). The

² ISDA Standard North American Corporate CDS contracts have coupon rates of 100 basis points (bps) or 500bps and the coupon rates in an ISDA Standard European Corporate CDS are 25bps, 100bps, 500bps or 1000bps.

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deemed credit adjustment is determined by the changes of an aligned CDS with no upfront premium, which is consistent with the characteristics of the typical managed credit exposure, which does not involve an upfront premium for credit risk but instead includes it in the interest rate or commitment fee charged.

15. However, constructing the aligned CDS like this gives rise to some operational complexity. For example, when calculating the change in fair value of the aligned CDS under Alternative 1, the differential between the coupon rates of the aligned CDS and the actual CDS has to be considered. This requires taking the differential between the coupon payments into account (in addition to the changes in the ‘clean’³ fair value of the aligned CDS) in order to compare the aligned CDS and the actual CDS on a like-for-like basis.⁴
16. Even when constructing an aligned CDS under alternative 1 the deemed credit adjustment would *not* capture all aspects of fair value changes of the credit exposure that are influenced by changes in credit risk. For example, an aligned CDS would not include some features of credit exposures such as prepayment and similar options because a CDS type instrument does not have those. This is a consequence of using the same *type* of instrument as the actual hedging instrument (ie a CDS) to determine the valuation adjustment for the hedged exposure and only aligning valuation inputs with the hedged exposure—the measurement is limited by the features relevant to the instrument being used to make the proxy measurement.
17. Profit or loss under alternative 1 could be more volatile than under alternative 2 owing to the different coupon rates between the actual standardised CDS and the

³ The ‘clean’ fair value excludes the effect of accrual of the current coupon payments for the fair value of the instrument.

⁴ The difference in the fair values between these instruments is driven by the differences in the timing of cash flows (effect of time value of money) and the fact that coupon payments are contingent (ie payable only until a credit event occurs) whereas an upfront premium/discount is definite, which means that implied probability of defaults in the CDS calculation have an impact on fair value changes. This can only be appropriately captured by considering the differential between the coupon payments on the aligned CDS and the actual CDS.

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aligned CDS value⁵ and because coupon payments are contingent (ie payable only until a credit event) whereas an upfront premium/discount is definite.

18. **Alternative 2** would use the same *coupon rate* as that of the actual CDS contract (ie the hedge) to construct the aligned CDS. If the actual CDS contract is a standardised contract (or the CDS already existed), both the actual CDS and the aligned CDS value would contain an upfront premium or discount.
19. The staff note that the upfront premium/discount of the aligned CDS value must be amortised over the life of the credit exposure (similar to the amortisation of the upfront premium/discount under the insurance approach). This is required to ensure that the carrying amount of the credit exposure (including the deemed credit adjustment) unwinds properly.
20. However, like under alternative 1, the deemed credit adjustment would *not* capture all aspects of fair value changes of the credit exposure that are influenced by changes in credit risk (see paragraph 16).
21. This alternative results in less profit or loss volatility. However, the amortisation of the upfront premium/discount would add complexity to the approach.

Using a credit spread curve

22. An alternative to using an aligned CDS for measuring the deemed credit adjustment would be to calculate the change in the fair value of credit risk by discounting the cash flows (including potential cash flows in case of a loan commitment) using a zero coupon term structure of interest derived from the CDS market. This requires that the CDS market is liquid enough for the given 'name' (ie specific borrower or loan commitment holder) to be able to derive such a curve limiting the practical application of such an approach. This would then have to be applied to estimated cash flows that include factors such as draw down and prepayment behaviour.

⁵ As noted in paragraphs 11 and 12. The coupon rate for an aligned CDS would be based on the market spread that an at-the-money CDS without upfront payment would have at inception of the hedging relationship.

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23. This is the operationally most difficult approach but it is also the most flexible approach in that it can capture features (eg prepayments) that cannot be captured by using an aligned CDS (see paragraph 16). In essence, this approach would capture all features of the actual credit exposure—priced using the CDS spreads as a proxy for (deemed) credit risk.

Interaction with impairment

24. The staff note that the deemed credit adjustment approach has a stronger interaction with impairment than the insurance approach. Under the deemed credit adjustment approach an impairment loss (in addition to the change in fair value represented by the deemed credit adjustment) would be recognised if the cumulative impairment loss on the credit exposure determined under the applicable impairment model for that credit exposure (excluding the deemed credit adjustment) exceeds the cumulative change in fair value of the deemed credit adjustment. That excess would be recognised in profit or loss in the period in which it arises.
25. However, the interaction with impairment is complicated if at inception of the deemed credit adjustment approach there is already an impairment allowance recognised for the credit exposure. This would often be a ‘general provision’ (eg under an IBNR⁶ approach) that does not relate to an individually identified credit exposure) but could in extreme⁷ cases also be an individual provision. Applying the logic in paragraph 24 an impairment amount would need to be recognised immediately as a result causing double counting of the impairment.
26. This interaction becomes more significant if the Board moves towards an expected loss model because that would involve some amount of provisioning for all credit exposures starting from their initial recognition.

⁶ Incurred but not reported.

⁷ Extreme cases because at the time a credit exposure is identified as individually impaired CDS spreads would typically have widened so much that buying a CDS at that stage is prohibitively expensive.

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27. A situation in which at inception of the deemed credit adjustment approach there is already an impairment allowance recognised for the credit exposure could be addressed as follows:

- (a) The credit exposure could be excluded from the regular impairment test once it qualifies for accounting under the deemed credit adjustment approach in order to avoid double counting for losses (depending on the qualifying criteria chosen—see paragraph 29). However, that would mean recognising at inception of the deemed credit adjustment approach an immediate gain from releasing the impairment allowance already recognised for that credit exposure.⁸ In other words, starting to hedge credit risk using a CDS would result in a gain. The staff consider that this outcome would be rather misleading (at worst even result in earnings management). In addition, this would mean that if there was an excess loss of the regular impairment over the deemed credit adjustment (see paragraph 24) that would not be recognised (*unless* an additional test was required that identified and recognised such an excess loss, in which case the immediate gain would also be avoided but the issue of starting with an impairment allowance would remain unresolved as well so you would come full circle).
- (b) An additional impairment loss would be recognised if the cumulative impairment loss on the credit exposure *from inception of applying the deemed credit adjustment* exceeds the deemed credit adjustment. Using the inception of applying the deemed credit adjustment as the starting point for determining the cumulative impairment loss would avoid recognising an immediate gain from releasing the already existing impairment allowance. However, using this starting point involves the danger of double counting for impairment losses and can result in recognising a gain or loss in relation to the impairment allowance that

⁸ For an allowance that does not relate to individually identified credit exposures this would occur indirectly because the credit exposure would be excluded from the population that the impairment approach (eg an IBNR or other statistical approach or a loss rate) is applied to.

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existed at inception of applying the deemed credit adjustment when later on a default occurs and the impairment allowance reaches the finally determined loss. These effects depend on how the impairment allowance that already existed relates to the loss that was implicitly priced into the CDS when it was acquired.

28. The staff note that the impairment approach that is applied to financial instruments hedged for interest rate risk in a fair value hedge⁹ cannot be applied to the deemed credit adjustment. For a fair value hedge adjustment for interest rate risk the effective interest rate is updated taking the fair value hedge adjustment into account and that updated effective interest rate is then used to discount the cash flows that are still expected to be received. The difference between the instrument's carrying amount (including the fair value hedge adjustment) and the present value of the cash flows still expected to be received is the impairment loss. For the deemed credit adjustment the same approach does not work because it would be a circular exercise given that the 'fair value hedge adjustment' in that case already relates to credit risk. This would result in an automatic additional impairment and hence systematic double counting for impairment losses.
29. When using the deemed credit adjustment approach the Board would also need to decide whether to impose as a qualifying criterion that the CDS has the same or a longer maturity than the credit exposure (see paragraph 21 of paper 16A). If such a restriction was imposed, an approach of excluding a credit exposure from the impairment test once it qualifies for accounting under the deemed credit adjustment approach could be considered (see paragraph 27(a)). If CDSs with a shorter term than the credit exposure were allowed, that approach would not be feasible because the credit risk coverage provided by the CDS includes a maturity gap during which the entity would not be protected against credit risk. If no such restriction is imposed, the staff note that there could be situations in which the gain on the aligned CDS (and hence the deemed credit adjustment) could be

⁹ See IAS 39.IG E.4.4.

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larger than the loss on the actual CDS, resulting in an overall gain from the deemed credit risk.

Active and flexible credit risk management

30. The staff note that because the CDS is always measured at fair value through profit or loss, the Board does not need to address any change in accounting for the credit derivative for switches between periods for which the credit derivative is and is not used to manage a particular credit exposure (as it is necessary under the insurance approach).
31. If the financial institution no longer manages the exposure for credit risk, the adjustment to the carrying amount would be treated in the same way as fair value hedge adjustments of discontinued fair value hedges:
- (a) For credit exposures to which the effective interest method applies (eg loans or bonds), the adjustment to the carrying amount would be amortised to profit or loss using the effective interest method¹⁰.
 - (b) For other loan commitments the accounting for discontinuing the deemed credit adjustment approach would be less straightforward:
 - (i) A loan commitment as such is not measured at amortised cost and hence the effective interest method does not apply to its default measurement (under IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*). Hence, the consequence would be that the deemed credit adjustment would remain unchanged until the loan commitment is derecognised. That results in a gain in profit or loss when the loan commitment expires unused or the deemed credit adjustment becomes part of the carrying amount of a loan resulting from a drawdown under the loan commitment.

¹⁰ See IAS 39.92 and paragraph 28 of the exposure draft *Hedge Accounting*.

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- (ii) An alternative is to amortise the deemed credit adjustment using the effective interest method. This requires assuming that a loan had been drawn under the loan commitment in order to determine an amortisation profile. The rationale for this alternative is that a credit loss only results from a loan commitment if it gets drawn and the resulting loan is not repaid. Hence, an amortisation on an ‘as if drawn’ basis would be appropriate to amortise the deemed credit adjustment. This has also a pragmatic advantage because for a loan commitment that allows repayments and redraws (eg a revolving facility) capitalising the deemed credit adjustment into individual drawings (like under (i) above) is operationally complex.