STAFF PAPER

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Project	**Research Project: Post-employment benefits**		
Paper topic	Potential models that might address the issue of contribution-based promises and other hybrid plans		
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Purpose and structure of this paper

1. At the September 2014 IASB, we explained that we would review past discussions and other literature to identify a model that provides sound financial reporting, from the perspective of the reporting entity, for plans that range from pure defined contribution (DC) to pure defined benefit (DB).

2. In this paper, we list possible models that might address the issue of contribution-based promises and other hybrid plans and analyse their pros and cons from both the conceptual and practical viewpoints. The purpose of this paper is to provide the staff's preliminary analysis. As explained in Agenda Paper 15, there are no questions for the Board in this paper.

3. Overall, we note that:

   (a) any models that are consistent with the proposals in the *Conceptual Framework* project (eg customised fulfilment value, fair value model) are not consistent with the current IAS 19 *Employee Benefits* and thus would:

      (i) if not applied to all plans, require a robust scope to be set for their use. A robust scope is likely to be arbitrary and result in a significant boundary effect; or

(ii) if applied to all plans, require a fundamental amendment to IAS 19.

(b) practical models that were suggested in past (eg D9 model, mirroring model) also need a robust scope to be set for their use. The Interpretations Committee removed its project for "employee benefits plans with a guaranteed return on contributions or notional contributions" from its agenda, when it realised the difficulty in setting a scope for this issue.

(c) a new practical model (a 'capped' ultimate costs adjustment model, which is explained in paragraphs 40-43 of this paper) would probably not need an arbitrary scope and would fit within the current IAS 19. However, it might be argued to be a rules-based fix, rather than a conceptual solution.

Possible models

4. Reviewing the past discussions at the IFRS Interpretations Committee ('the Interpretations Committee') and the IASB and considering information gathered about practices, we identified the following possible models:

(a) the current IAS 19 model;

(b) models consistent with the proposals in the Conceptual Framework project:

(i) a fair value model;

(ii) a customised fulfilment value model;

(c) other practical models suggested in the past:

(i) the D9 model;

(ii) a bifurcation model;

(iii) a mirroring model;

(d) a new practical model:

(i) a ‘capped’ ultimate costs adjustment model.

Staff preliminary analysis

5. In the following section, we explain each model and analyse its pros and cons from both conceptual and practical perspectives. In making our assessment of each model, we used the Exposure Draft of the revised *Conceptual Framework* and past analysis including comments during the 2011—2012 Agenda Consultations and discussions at the IASB meetings and the Interpretations Committee meetings.

The current IAS 19 model

6. We think that the current IAS 19 model’s advantage is its current operationality for preparers that only have traditional DB plans such as final salary plans. We think that users of financial statements are familiar with this measurement model.

7. The projected unit credit method is used to measure the DBO under IAS 19. In this method, an entity would make an estimate of the ultimate cost to the entity of the benefit that employees have earned in return for their service. This requires an entity to determine how much benefit is attributable to the current and prior periods and to make estimates of the variables that affect the cost of the benefit. The estimates of the variables should be the best estimates which might be understood to be a single best estimate, not a weighted average reflecting many possible outcomes under possible scenarios.

8. We understand that some risk-sharing features are reflected in an entity’s best estimates, as required by paragraph 76 of IAS 19. (Paragraphs BC143-BC148 of IAS 19 describes the background to paragraph 76, related to risk-sharing features. See Appendix A of this paper.)

9. However, the model does not always provide relevant information for some new types of plans, as noted at the September 2014 IASB meeting and as discussed at the Interpretations Committee meetings.

10. For example, to calculate the amount of the DBO for some hybrid plans in IAS 19, an entity projects the benefit on the basis of an assumption of the future return on the plan assets, which is generally higher than bond rates. However, the discount rate to calculate the present value of DBOs is generally a high quality corporate bond rate as required in IAS 19. The plan assets are measured at fair value as at the end of each period as required by IAS 19.

11. Under these hybrid plans, investment risk on plan assets does not fall entirely on the entity. If the assets perform less well than expected, the benefits for the employees will generally also be reduced in some manner. However, this is not currently reflected in the accounting and, hence, an entity could show an excessive plan deficit (ie the present value of DBOs is much higher than the fair value of the plan assets), as a consequence of the projected higher return on plan assets compared to the discount rate. This is despite these hybrid plans being less risky and less burdensome for the entity than traditional DB plans. [1]

12. We think that these problems might mislead users of financial statements, if they assume that the amount of the DBO measured in accordance with IAS 19 is always appropriate and if they do not realise the problems. A few specialists mentioned that transaction prices of annuities or longevity swaps and significant settlement losses imply that the true economic values of pension obligations is higher than the amounts of the DBO measured under IAS 19.

Fair value model

13. The fair value model was proposed in the 2008 Discussion Paper *Preliminary Views on Amendments to IAS 19 Employee Benefits* (‘the 2008 Discussion Paper’).

14. In principle, it would require entities to measure liabilities for contribution-based promises at fair value, assuming the terms of the benefit promise do not change.

[1] For further details of the problems, see Agenda Paper 8C used at the September 2014 meeting.

15. Some plans include a 'higher of' option, which relates to when the employee is guaranteed the higher of two or more possible outcomes (for example, the employer may guarantee the higher of a fixed return (eg two per cent) and the actual return on a specific pool of assets). In the model proposed in the 2008 Discussion Paper, an entity would be required to recognise the higher-of option separately from a host-defined benefit promise and to measure the 'higher of' option at fair value assuming the terms of the benefit promise do not change. The host DB promise would be measured by the IAS 19 model. [2]

16. We think that a fair value model would be one of the possible outcomes of applying the concepts included in the Exposure Draft of the revised *Conceptual Framework*. In addition, use of fair value would make measurement for pension liabilities more consistent with the measurement required by IFRS 2 *Share-based Payments*.

17. However, following the reasoning in the Exposure Draft of the revised Conceptual Framework, we think that the use of fair values might not be the best answer for pension accounting, because we think that an entity would usually fulfil the liability, rather than transfer it to another party. We think that a fulfilment value, which is the present value of the cash flows that an entity expects to incur as it 'fulfils' a liability, might be a more suitable measurement basis for pension accounting when a transfer is not likely.

18. Moreover, the past comments on the 2008 Discussion Paper implied that the fair value model proposed in the Discussion Paper would be too complex for preparers.

A customised fulfilment value model

[2] The Discussion Paper did not propose fundamental changes to the techniques used to measure DBOs for typical DC and typical DB (ie final salary plans). Broader potential issues in IAS 19 were mentioned in paragraph 1.11of the Discussion Paper, but no proposals to address the issues were included. These potential issues included recognition of unvested benefits, fundamental problems of the projected unit credit method, net presentation and multi-employer plans.

19. Insurance contracts and pensions have similar natures (eg long durations, high uncertainties, sensitivity to assumptions, varied risks). In fact, some pension promises may meet a definition of insurance contracts. In particular, we noted that some pension promises have similarities with participating insurance contracts, when cash flows depend on asset returns.[3]

20. The IASB's approach to measuring insurance contracts would consider an insurance contract as comprising both:

    (a) an obligation to pay net future cash outflows, referred to collectively as the fulfilment cash flows; and

    (b) an obligation to provide insurance coverage over the coverage period, which is represented by the contractual service margin.

21. We noted that the concept of an obligation to pay net future cash outflows as the fulfilment cash flows could be used for pension accounting, because of the similarities between insurance contracts and pensions.

22. We acknowledge that employers may also have the obligation to provide pension coverage. However, we would not think that the concept of "contractual service margin" should be used in pension accounting, because the nature of pensions is different from that of insurance. We think that an entity would not intend to earn profits when it has a pension promise, whereas an insurer would intend to earn profits through providing insurance coverage as its business.

23. In the new Standard for insurance contracts, the net fulfilment value of insurance contracts would be measured as follows:

    (a) a current, unbiased estimate of the cash flows expected to fulfil the insurance contract. The estimate of cash flows reflects the perspective of the entity, provided that the estimates of any relevant market variables do not contradict the observable market prices for those variables.

[3] For further similarities and differences, see the section on 'Potential impact of the Insurance project' in Agenda Paper 15C.

(b) an adjustment for the time value of money, using discount rates that reflect the characteristics of the cash flows. The discount rates exclude the effect of any factors that influence the observable market prices, but that are not relevant to the cash flows of the insurance contract (eg an entity's own credit risk). Accordingly, to the extent that the amount, timing or uncertainty of the cash flows that arise from an insurance contract depend wholly or partly on asset returns, the characteristics of the liability reflect that dependence.

(c) an adjustment for the effects of risk and uncertainty. The risk adjustment is defined as being the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arise as the entity fulfils the insurance contract.

A table presented in Appendix B of this paper shows comparisons of the model above, the IAS 19 model and the fair value model.

24. We think that use of this customised fulfilment model would solve the issues relating to hybrid plans, because:

(a) discount rates would reflect the characteristics of the cash flows (ie they would reflect the dependence on the asset returns of the underlying reference assets);

(b) the value would also reflect the value of 'higher-of' options appropriately. and

(c) the value would provide relevant information about the nature and risks of the pension promise.

25. We acknowledge that the adjustment for the effects of risk and uncertainty could be difficult to apply to pension accounting, because pension promises often cover risks related to employment, which insurance contracts usually do not. However, we note that this risk adjustment could provide useful information, for example when 'a higher-of' option exists or when mortality risks are covered.

26. We also think that this fulfilment value is conceptually appropriate for pension accounting, because we think that the objective of measurement in pension

accounting, as with the accounting for insurance contracts, should be to measure obligations to pay future cash outflows from the employers' perspective.

27. We acknowledge that this model may sound complex for many entities, but we think that these concerns may be reduced after the implementation of the new Insurance Standard, particularly given the role that actuaries play in providing valuations for pension accounting.

The D9 model

28. In 2004, the Interpretations Committee issued IFRIC Draft Interpretation D9 *Employee Benefit Plans with a Promised Return on Contributions or Notional Contributions,* to address issues on contribution-based promises.

29. The model in the Draft Interpretation D9 requires entities to measure benefits with a variable return at the fair value of the underlying reference assets and those with a fixed return using the projected unit credit method. Moreover, entities would measure benefits that promised the higher of more than one benefit at the intrinsic value. This means that an additional liability would be recognized if the fair value of the underlying reference asset is larger than the amount under the IAS 19 model. (If not, no additional liability would recognised as the intrinsic value is zero.)

30. We think that this model would be an improvement to IAS 19, because it would solve part of the practical problems for some plans. In addition, we think that an advantage of this model is the feasibility, because some entities already used the D9 model in practice and this fact implies that other entities could also use the model for similar plans without much difficulty.

31. However, the Interpretations Committee was unable to reach a consensus on a suitable scope for an amendment that would both:

    (a) improve the accounting for a sufficient population of plans such that the benefits would exceed the costs; and

(b) limit any unintended consequences that would arise from making an arbitrary distinction between otherwise similar plans.

32. Moreover, this model would require an entity to use the intrinsic value, which would not reflect the value of options properly, whereas some entities use the fair value for the higher-of options in practice, using option-pricing techniques.

33. We think that it is not impossible to set a scope for the D9 model, but any scope would be arbitrary and will create a significant boundary effect.

Bifurcation model

34. In this model, entities separate a contribution-based promise into a DC component and a component for any guaranteed return,[4]. The guaranteed return would be measured at fair value by option pricing or some other methodology. The IASB considered such a 'bifurcation' model in developing the 'fair value model' in the Discussion Paper, but rejected it because it would mix different measurement bases for one obligation and might provide opportunities for accounting arbitrage.

35. We think that bifurcation might provide more useful information for DC plans with guaranteed promises, compared to DC accounting ignoring the values of guarantees. However, we are concerned that introduction of this model might provide opportunities for accounting arbitrage, as the IASB observed in the past.

Mirroring model

36. The mirroring model would extend the requirement of paragraph 115 of IAS 19, which states:

> Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the

[4] The guaranteed return could be a guaranteed return of zero, meaning that an amount equal to the contributions would be guaranteed.

related obligations (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

37. A merit of this model is that it would cause the amount of the obligation to match the amount of the fair value of plan assets, when the matching strategy between the obligation and the plan asset works correctly.

38. However, we would need to set a new arbitrary rule if we were to extend the scope of this requirement to be applied some types of pensions. We think that recent discussions at the Interpretations Committee on longevity swaps indicate that setting an arbitrary scope for different measurement basis would cause potential problems.[5] Moreover, we are not sure that this could be applied to all problematic hybrid plans.

39. Furthermore, we note that this model could be challenged from the conceptual viewpoint, because:

    (a) we would be using two different measurement bases for plan assets; and

    (b) some plan assets would not be measured at fair value.

    To avoid this problem, it could be required an entity to adjust the amount of DBO (not the amount of plan assets) to match the DBOs and the plan assets. However, we note that this would not address problems described in the previous paragraph.

A 'capped' ultimate costs adjustment model

40. In this model, the entity would limit any estimate of future benefits that depend on asset returns to an estimate based on a rate of return equal to the discount rate specified under IAS 19.

[5] The issue and its background are explained in the staff papers in the following website:
http://www.ifrs.org/Current-Projects/IASB-Projects/Employee-Benefits-Longevity-swaps/Pages/Papers-and-discussion-stage-1.aspx

41. For example, suppose a plan promised a benefit equal to contributions plus the rate of return on a group of assets for which the current expected rate of return was 5%, and the discount rate specified by IAS 19 was 3%. Under the current IAS 19 model, an entity would measure the DBO by projecting forward the cash outflows at the expected rate of return on the assets of 5% and then discounting them back at 3%. Under a 'capped' model, the cash outflows would be estimated using the discount rate of 3%, and then discounted back at 3%.

42. We think that this model could address the typical problem described above that arises when the benefit depends on future asset returns. We acknowledge that this would be a rule-based approach and would conflict with a general requirement to use 'best estimates' as assumptions to determine the DBO. Also, we have not yet explored the model in detail, and will need to do further analysis and outreach to ensure that it can be developed in a way that does not have unintended consequences. We also acknowledge that this model does not provide the most useful information for a 'higher-of' option, because it would not reflect the value of options appropriately.

43. However, we think that this model could be relatively simple to develop and give a cost-beneficial short term solution for some of the problems relating to hybrid plans, because:

    (a) it would not need an arbitrary scope to be set: it automatically applies to the situations that cause the problem that it resolves;

    (b) it would not change the fundamental requirements in IAS 19; and

    (c) it would be consistent with the 'net interest approach' in the current IAS 19, which requires an entity to use the discount rate to calculate the interest income on plan assets, even when the expected return on the plan assets is different from that discount rate.

Appendix A—Excerpts from IAS 19 and Basis for Conclusions on IAS 19

76 Actuarial assumptions are an entity's best estimates of the variables that will determine the ultimate cost of providing post-employment benefits. Actuarial assumptions comprise:

(a) demographic assumptions about the future characteristics of current and former employees (and their dependants) who are eligible for benefits. Demographic assumptions deal with matters such as:

(i) mortality (see paragraphs 81 and 82);

(ii) rates of employee turnover, disability and early retirement;

(iii) the proportion of plan members with dependants who will be eligible for benefits;

(iv) the proportion of plan members who will select each form of payment option available under the plan terms; and

(v) claim rates under medical plans.

(b) financial assumptions, dealing with items such as:

(i) the discount rate (see paragraphs 83–86);

(ii) benefit levels, excluding any cost of the benefits to be met by employees, and future salary (see paragraphs 87–95);

(iii) in the case of medical benefits, future medical costs, including claim handling costs (ie the costs that will be incurred in processing and resolving claims, including legal and adjuster's fees) (see paragraphs 96–98); and

(iv) taxes payable by the plan on contributions relating to service before the reporting date or on benefits resulting from that service.

…

80 Financial assumptions shall be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.

Actuarial assumptions—risk-sharing: amendments issued in 2011

BC143 The amendments made in 2011 clarify that:

(a) the effect of employee and third-party contributions should be considered in determining the defined benefit cost, the present value of the defined benefit obligation and the measurement of any reimbursement rights.

(b) the benefit to be attributed to periods of service in accordance with paragraph 70 of IAS 19 is net of the effect of any employee contributions in respect of service.[5]

(c) any conditional indexation should be reflected in the measurement of the defined benefit obligation, whether the indexation or changes in benefits are automatic or are subject to a decision by the employer, the employee or a third party, such as trustees or administrators of the plan.

(d) if any limits exist on the legal and constructive obligation to pay additional contributions, the present value of the defined benefit obligation should reflect those limits.

BC144 Some defined benefit plans include features that share the benefits of a surplus or the cost of a deficit between the employer and the plan participants. Similarly, some defined benefit plans provide benefits that are conditional to some extent on whether there are sufficient assets in the plan to fund them. Such features share risk between the entity and the plan participants and affect the ultimate cost of the benefits. Hence, the 2010 ED proposed to clarify that the present value of the defined benefit obligation should reflect the best estimate of the effect of risk-sharing and conditional indexation features. Many respondents agreed with that proposal.

BC145 However, some respondents expressed doubts about whether the proposals could adequately address risk-sharing features because of the existing defined benefit and defined contribution distinction and because of the existing measurement model for defined benefit plans. They suggested that the Board should not address risk-sharing features until it conducted a fundamental review of classification and measurement in order to address the whole spectrum of plans from defined contribution to defined benefit (including contribution-based promises). However, the Board observed that the current model is based on the ultimate cost of the benefit, and thus should be able to take into account risk-sharing features that reduce the ultimate cost of the benefit to the entity.

BC146 Many respondents requested further clarification on:

(a) conditional indexation (paragraphs BC147–BC149); and

(b) other points (paragraph BC150).

Conditional indexation

BC147 Some defined benefit plans provide conditional indexation (such as additional benefits contingent on returns on plan assets). In general, according to paragraph 88, the measurement of the benefit obligation must reflect the best estimate of any future effect of such conditional indexation. However, some respondents noted that the strict separation of the measurement of plan assets and liabilities under IAS 19 results in a mismatch: the conditional indexation is included in the present value of the defined benefit obligation, but not in the measurement of the plan assets. Some argue that the effect of conditional indexation should not be included in the measurement of the liability until the underlying returns are included in the measurement of the plan assets.

BC148 In the Board's view, projecting the benefit on the basis of current assumptions of future investment performance (or other criteria to which the benefits are indexed) is consistent with estimating the ultimate cost of the benefit, which is the objective of the measurement of the defined benefit obligation, as stated in paragraph 76. The Board also considered other changes to the measurement approach, such as using option pricing techniques to capture the effect of the conditional indexation in a manner consistent with the fair value of the plan assets. However, the Board rejected those alternatives because they would require changing the fundamental measurement of the defined benefit obligation. The Board noted that concerns regarding measurement of benefits with conditional indexation are similar to concerns regarding the measurement of contribution-based promises discussed in its 2008 discussion paper. Addressing these concerns was beyond the scope of the amendments made in 2011.

BC149 Some respondents interpreted the 2010 ED as proposing that in determining the effect of conditional indexation, an entity would be required to project the future funding position (on the basis used to set contribution rates) and then establish the effect that the funding level might have on future benefits and contribution requirements. These respondents believe that projecting the funding position would involve a significant amount of additional work and that in most regions it would be very difficult to establish a suitable adjustment to the liabilities to reflect the effect of conditional indexation based on the funding position. In the Board's view, an entity should estimate the likely conditional indexation of benefits based on the current funding status of the plan, consistently with how financial assumptions are determined in accordance with paragraph 80. Paragraph 80 requires financial assumptions to be based on market expectations at the end of the reporting period for the period over which the obligations are to be settled.

Other clarifications

BC150 The Board clarified the following points in the light of responses to the 2010 ED:

(a) Contributions from employees in respect of service should be attributed to periods of service in accordance with paragraph 70 using the benefit formula, or on a straight-line basis (ie the back-end loading test and attribution in paragraph 70 should be based on the net benefit).[6] This reflects the Board's view that contributions from employees can be viewed as a negative benefit. In addition, the Board noted that a portion of future employee contributions may be connected with salary increases included in the defined benefit obligation. Applying the same method of attribution to that portion of the contribution and the salary increases avoids an inconsistency.

(b) An entity would apply judgement in determining whether a change in an input is a change in the terms of the benefit (resulting in past service cost) or a change in an assumption (resulting in an actuarial gain or loss). This clarification is consistent with guidance that existed in IAS 19 before 2011, describing how to address employee contributions for medical costs.

(c) The best estimate of the ultimate cost of the benefits reflects the best estimate of the effect of terms of the plan that require or allow a change to the level of benefit, or that provide other benefit options, regardless of whether the benefits are adjustable by the entity, by the managers of the plan, or by the employees.

(d) The measurement of the defined benefit obligation takes account of the effect of any limit on contributions by the employer (see paragraph 91). In the Board's view, this is consistent with the objective of determining the ultimate cost of the benefits. The Board concluded that the effect of such a limit should be determined over the shorter of the expected life of the plan and the expected life of the entity. Determining the limit over a period longer than the current period is necessary to identify whether the effect of the limit is temporary or permanent. For example, the service cost may be higher than the maximum contribution amount in the current period, but if in subsequent years the service cost is lower than the contribution amount, then the effect of the limit is more of a deferral of current period contributions than a limit on the total contributions required.

(e) The amendments relating to risk-sharing are not intended to be limited to particular relationships. Some respondents noted that some plans' risks are shared not only with employees, but also with other parties (such as the government). In the Board's view, an entity should consider such arrangements in determining the defined benefit obligation. Nevertheless, entities need to consider whether those contributions are reimbursements as described in paragraphs 116–119 (and therefore must be recognised as reimbursement rights) or reductions in the defined benefit obligation.

Appendix B—Comparisons of the IAS 19 model, a customised fulfilment value model and the fair value model

	IAS 19 model	A customised fulfilment model	Fair value model
Future cash flows	Best estimates of ultimate costs. (Projected unit credit method)	A current, unbiased estimate of the cash flows expected to fulfil the obligations. (The estimate of cash flows reflects the perspective of the entity, provided that the estimates of any relevant market variables do not contradict the observable market prices for those variables.)	A current, unbiased estimate of cash flows consistent with variables observed in markets.
Discount rates	High quality corporate bond rates (or government bond rates if there is no deep market). They should not reflect the characteristics of the cash flows.	The discount rates reflect the characteristics of the cash flows. They exclude the effect of any factors that influence the observable market prices, but that are not relevant to the cash flows of the insurance contract (eg an entity's own credit risk).	The discount rates should be consistent with rates observed in markets, to reflect time value of money in fair value.
Risk adjustments	N/A	Separately measured at the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows.	Reflect the price for bearing the uncertainty inherent in the cash flows. The price should reflect the perspective of market participants. [6]

[6] The 2008 Discussion Paper suggested that the entity should assume that the terms of the benefit promise do not change, to measure the fair values.