This Agenda paper discusses the implications of measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 119 *Employee Benefits* for measuring defined benefit obligations

Notes to Members:

[Paragraphs omitted from observer notes.]

Background

1. ED 179 *Superannuation Plans and Approved Deposit Funds* proposes that obligations and assets arising from insurance contracts issued by a superannuation plan or approved deposit fund (ADF) be measured in accordance with the principles and requirements applicable to life insurance contracts under AASB 1038 *Life Insurance Contracts*. Appendix A to this Agenda paper provides the main proposals in ED 179 dealing with liabilities and assets arising from insurance contracts issued by a plan or ADF. In addition, Appendix A provides selected paragraphs from the Basis for Conclusions to ED 179 which explain the Board's conclusions in relation to these proposals.

2. Sixteen of the twenty respondents to ED 179 specifically commented on the relevant proposals. Thirteen of these respondents acknowledged that a plan that:

   (a) 'self-insures' members' benefits; and/or

   (b) pays discretionary insurance benefits in addition to the benefits provided by an external insurer; and/or

   (c) is liable for insurance claims under its trust deeds that have been rejected by an external insurer;

   is potentially exposed to insurance risk and therefore should arguably provide enhanced disclosures regarding these risks. However, all of the respondents that commented on the insurance contract proposals suggested there would be significant practical difficulties in applying AASB 1038 in a superannuation context which could potentially undermine the provision of useful information to users. The main difficulties identified by respondents are discussed in Appendix B to this Agenda paper.

3. In light of such views, the Board decided at its December 2009 meeting to give further consideration to the implications of measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 119 *Employee Benefits* for measuring defined benefit obligations. Accordingly, the purpose of this Agenda paper is to consider:

   (a) how an insurance component of a defined benefit obligation might be measured under the approach in AASB 119 for defined benefit obligations (paragraphs 5-16);

   (b) the main components of the measurement approach in AASB 1038 for life insurance obligations and the measurement approach in AASB 119 for defined benefit obligations (paragraph 17 and Table A);

   (c) some of the practical implications of measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 1038 for life insurance obligations (paragraphs 18-34); and

   (d) arguments for and against measuring the insurance component of defined benefit obligations in accordance with the measurement approach in AASB 119 for defined benefit obligations (paragraphs 35-36).

4. It is relevant to note that some 'hybrid' superannuation plans currently 'self-insure' obligations arising from the insurance arrangements they offer to their defined contribution members. Accordingly, it is likely that these plans would face many of the

same types of issues discussed in this paper in respect of their 'self-insured' defined contribution members. However, staff consider that it would be more efficient for the Board to focus on the implications of measuring insurance obligations to defined benefit members under the approach in AASB 119 in the first instance (and, if the Board agrees, consider the implications of measuring insurance obligations to defined contribution members at a future meeting) because:

(a) 'self-insured' insurance arrangements for defined contribution members are relatively less common than 'self-insured' insurance arrangements for defined benefit members; and

(b) insurance obligations in relation to defined benefit members are arguably different in nature from insurance obligations to defined contribution members. As discussed later in this Agenda paper, the insurance component of a defined benefit obligation may be considered one component of a 'bundled' financial product which may not be capable of being measured separately from the other components. In contrast, the insurance component of defined contribution arrangements is normally readily separable from the retirement component, even in circumstances where the insurance obligation is 'self-insured'.

Accordingly, staff consider that it is appropriate to consider the accounting for insurance obligations in relation to defined benefit members separately from the accounting for insurance obligations in relation to defined contribution members.

Measurement of the insurance component of a defined benefit obligation under the approach in AASB 119 for defined benefit obligations

5. AASB 119 requires a defined benefit obligation to be determined on the basis of the 'best estimate' of future benefit payments. As the amount of death or total and permanent disability (TPD) benefits may differ from the amount payable to the member if they were to voluntarily leave the plan before retiring, or the member's accrued retirement benefits, plans with defined benefit members either 'self-insure' the death or TPD benefits or reinsure the benefits with an external insurer.

6. Where a plan 'self-insures' its members' death or TPD benefits, actuaries would allow for such benefit payments in determining the entity's defined benefit obligations under AASB 119. In circumstances where a plan reinsures its members' death or TPD benefits with an external reinsurer, the actuary would normally calculate the members' death and TPD benefits on the same basis as 'self-insured' benefits. However, the actuary would deduct the reinsured component from the total death and TPD benefits to determine the defined benefit obligation. Nevertheless, most actuaries would generally give consideration to whether a plan's total assets (including any reinsurance recoveries) would be sufficient to meet expected future benefit payments and, if appropriate, incorporate any expected death or TPD benefit payments that may not be covered by the plan's reinsurance arrangements into the calculation of the entity's defined benefit obligation. Such an approach would be considered appropriate in circumstances where, for instance:

(a) defined benefit members' death or TPD benefits are not fully reinsured with an external insurer; and/or

(b) the plan's assets may not be considered sufficient to cover any unexpected death or TPD benefit payments, particularly in the short term.

As most plans with defined benefit members will, from time to time, have some level of intentional or unintentional self-insured benefits, the remainder of this Agenda paper focuses on how 'self-insured' death or TPD benefits might be measured under AASB 119.

7. Most defined benefit arrangements provided by Australian plans, particularly private sector plans, are lump-sum in nature rather than annuity-based arrangements. In addition, retirement benefits offered by most Australian plans are a multiple of a member's average salary in the years preceding their retirement or final salary at retirement. Accordingly, at any point during their working life, the present value of a member's accrued retirement benefit could be calculated as follows:

$$\frac{\text{(expected final salary * number of years membership * accrual rate)}}{(1 + r)^{\text{(years to retirement)}}}$$

8. To demonstrate this calculation, we will assume Member A joined XYZ defined benefit plan when she was 30 years of age, she is currently 45 years of age and is expected to retire at 65 years of age. (Accordingly, Member A is assumed to remain an active member of the plan until she retires, at which time she will exit the plan.) Under the plan's rules, Member A is entitled to 20% of her final salary for each year of service. Her expected final salary is $100,000 and the discount rate is 5%. Accordingly, the present value of Member A's accrued retirement benefit at 45 years of age is calculated as follows:

$$\frac{(\$100{,}000 * 15 * 20\%)}{(1 + 0.05)^{(20)}} = \$113{,}067$$

9. Diagrams A and B below demonstrate the implications for Member A's defined benefit entitlements of them approaching their estimated retirement age. It is relevant to note that:

   (a) the vertical (y) axis in Diagram B corresponds to the benefit multiple (number of years membership * accrual rate) applicable to Member A over their potential period of membership; and

   (b) Diagram B assumes that an accumulation-type approach has been adopted in respect of Member A's defined benefit entitlements. Such an approach is consistent with the measurement approach in AASB 119 for defined benefit obligations (and the accumulation approach under AASB 1038, which is discussed later in this Agenda paper).

Diagram A

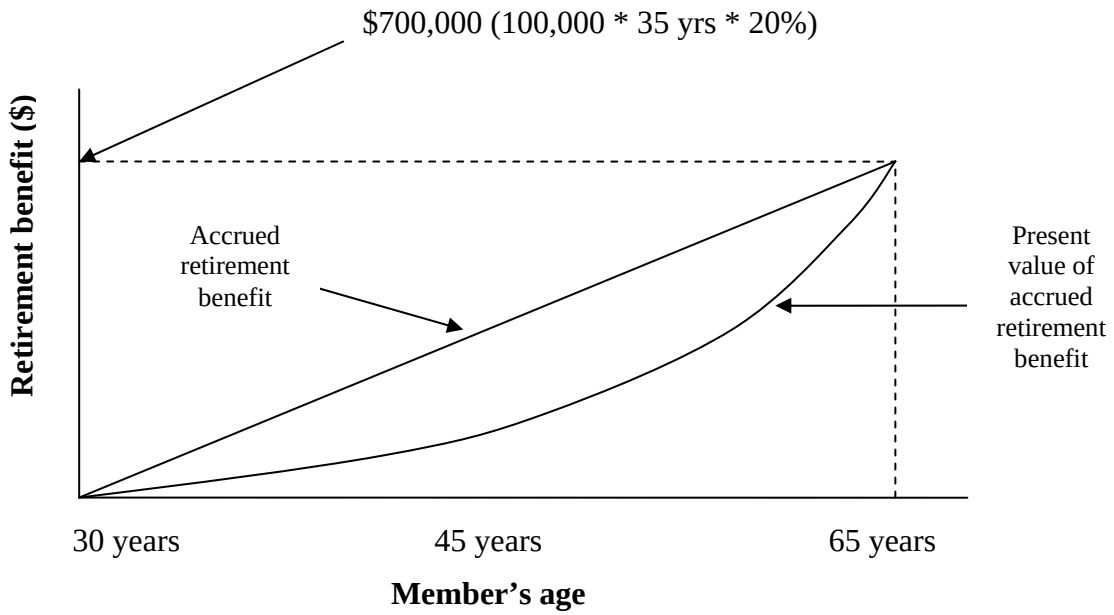
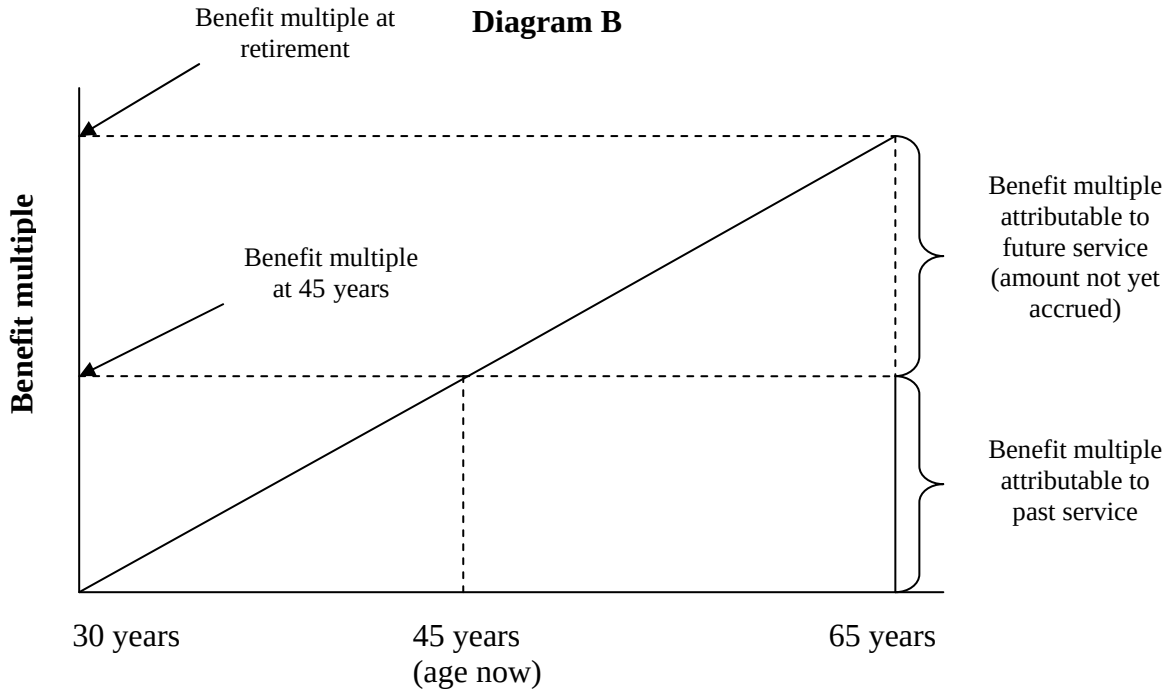


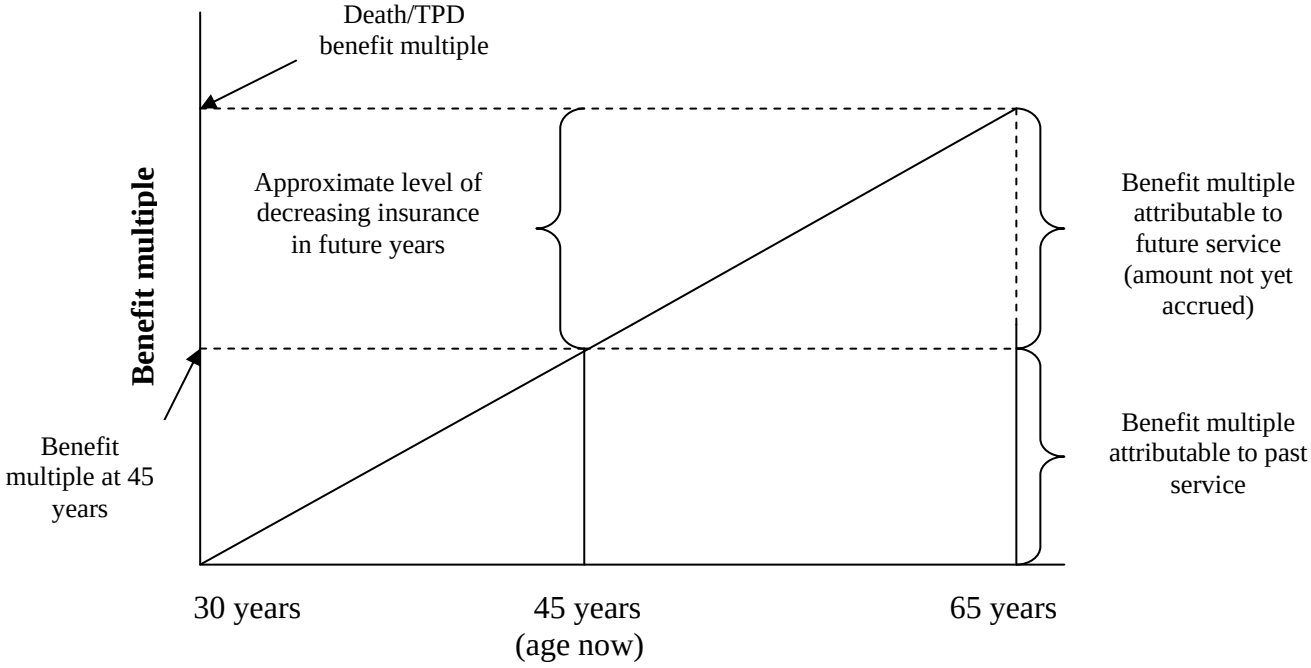
Diagram B



10. Most defined benefit arrangements provided by Australian plans cater for circumstances where a member dies or becomes totally and permanently disabled prior to their retirement date by providing a death or disablement benefit (in lieu of a retirement benefit). For most (but not all) defined benefit members, the amount payable upon the member's death or TPD is determined on the basis of a member's salary at the time of

the event and the benefit multiple that would apply at the assumed normal retirement date. Diagram C below demonstrates the relationship between the retirement and insurance components of Member A's defined benefit entitlements. It is relevant to note that Diagram C has been prepared on the same basis as Diagram B above.

Diagram C



11. In determining a 'best estimate' of future benefit payments under AASB 119, an actuary would normally calculate the value of the accrued benefits in respect of all future benefit payments, including death and disablement benefit payments. To do this, an actuary might:

    (a) determine the benefits payable to each member in respect of each of the different types of benefits payable by the plan (including retirement, death, TPD, voluntary exit) for each potential year of membership;

    (b) pro-rata the benefits payable to each member in respect of each of the different types of benefits payable by the plan for each potential year of membership between past and future service;

    (c) determine the best estimate for each of the different types of benefits payable by applying relevant probabilities to the benefits payable to each member in respect of each potential year of membership; and

    (d) discount the best estimate for each of the different types of benefits payable to each member in respect of future service back to the reporting date.

12. Consistent with the approach described in paragraph 11 above, under AASB 119 a member's accrued benefit would reflect the best estimate of the member's death or TPD benefits payable at the reporting date. Accordingly, the amount would be determined on the basis of:

(a) the member's expected salary rate and benefit multiple applicable in the event the member were to become deceased or totally and permanently disabled;

(b) the probability that the member will become deceased or totally and permanently disabled.

This can be demonstrated using the example of Member A.

13. In addition to the fact pattern described in paragraph 8 of this Agenda paper, it will be assumed that:

(a) Member A is entitled to a death or TPD benefit determined on the basis of her salary at date of death or TPD and benefit multiple applicable at retirement date (that is, 35 years * 20%);

(b) Member A's salary in the year she turned 46 years of age (that is, in her 16th year of membership of the plan) is $70,000;

(b) there is a 5% probability that Member A will become deceased or totally and permanently disabled in the year she turns 46 years of age; and

(c) Member A will only exit the plan as a consequence of death, TPD or retirement.

On this basis, the present value of Member A's defined benefit entitlements (including death and TPD benefits) in the year she turns 46 years of age would be calculated as follows:

$$95\% * [(\$100{,}000 * 16 \text{ years} * 20\%)/(1 + 0.05)^{(19)}] + 5\% * [(\$70{,}000 * 35 \text{ years} * 20\%)/(1 + 0.05)^{(1)}]$$

$$= \$120{,}303 + \$23{,}333$$

$$= \$143{,}636$$

14. Consistent with the approach described in paragraph 11 of this Agenda paper, to calculate Member A's accrued benefits the present value of Member A's defined benefit entitlements would need to be pro-rated between past and future service.

15. It is relevant to note that the present value of Member A's defined benefit entitlements ($143,636) is less than the death or TPD benefit she would have been paid had she become deceased or totally and permanently disabled at age 46 years ($490,000), but is greater than the present value of her accrued retirement benefit ($120,303). This is due to the impact of the probabilities assigned to the various benefit payment scenarios.

16. Appendix C to this Agenda paper discusses the different approaches available under Australian Actuarial Standards for determining accrued death or TPD benefits.

Main components of the measurement approach in AASB 1038 for life insurance obligations and the measurement approach in AASB 119 for defined benefit obligations

17. Table A below provides a comparison of the main components of the liability measurement approaches in AASB 1038 and AASB 119 and staff views in relation to the main differences between the measurement approaches under the different Standards.

Table A – Main components of the measurement approach in AASB 1038 for life insurance obligations and the measurement approach in AASB 119 for defined benefit obligations

	AASB 1038	AASB 119	Staff views
Basis of Measurement	An estimate of the present value of the future net cash flows under a life insurance contract.	An estimate of the present value of the future post-employment benefits payable to employees (or their dependants).	The same measurement base is required under both Standards.
Cash flows	Estimated future cash flows are based on either: (a) the present value of future receipts from and payments to policyholders, including participating benefits, allowing for the discontinuance before the end of the insurance contract periods on the basis of assumptions that are 'best estimates' of the relevant behaviours of whole populations of policyholders ('projected cash flow approach'); **or** (b) the net accumulated benefits to policyholders ('accumulation approach') provided that the result under the approach would not be materially different from the result under the projected cash flow approach described in (a) above.	Estimated future benefit payments based upon assumptions that are the 'best estimates' of the determinants of future benefit payments at the end of the reporting period, including: (a) future salary and benefit levels (taking into account factors such as inflation, seniority and promotion and whether there are any constructive obligations that go beyond the formal terms of the plan); (b) rates of employee turnover, disability and mortality; and (c) proportion of employees with dependants who will be eligible for benefits.	The approaches for determining cash flows under the two Standards are conceptually similar. For instance, in both cases the cash flows: (a) are determined on a 'best estimates' basis; and (b) reflect all relevant future events. Moreover, the liability measurement approach in AASB 119 is arguably similar to the accumulation approach in a number of respects. For instance, under both approaches: (a) the obligation accrues over time on the basis that the entity expects to pay claims/benefits in respect of each policyholder/member in the future; and (b) the life insurance expense/service cost recognised for the period represents the present value of benefits earned by the policyholder/member (including any insurance benefits) during the reporting period.

	AASB 1038	AASB 119	Staff views
'Margin' on top of best estimate cash flows	*Projected cash flow approach* Planned margins of revenues over expenses relating to services yet to be provided to policyholders, including a risk margin, a service margin and other margins such as a selling margin and a margin to recover acquisition costs. Planned margins are established at the inception of an insurance contract as the difference between the gross premium received and the estimated future receipts from, and payments to, policyholders, including participating benefits. *Accumulation approach* Accumulated benefits to policyholders are calculated net of the portion of acquisition costs expected to be recouped where the result would not be materially different from the application of the projected cash flow approach.	In determining the expected and actual return on plan assets, an entity is permitted to deduct expected administration costs, other than those included in the actuarial assumptions used to measure the obligation.	Under both the accumulation approach and the AASB 119 approach, the 'margin' on top of the best estimate cash flows is limited to expenses. In contrast, under the projected cash flow approach planned margins of revenues over expenses comprise a number of components, some of which are arguably not relevant in a defined benefit context. In a defined benefit context, risk margins might be expected to be significantly lower because the employer sponsor is underwriting the promised benefits. In addition, as defined benefit plans are generally considered to be 'not-for-profit' entities and do not provide additional 'services' (such as investment management services) in the same manner as some life insurers do, selling margins and service margins would not exist. It is relevant to note that, in the context of its Insurance Contracts project, the IASB has tentatively decided that: (a) an insurance obligation should include an explicit risk margin; and (b) a residual margin should be included in the measurement of an insurance obligation to eliminate any gain that would otherwise be recognised on inception of an insurance contract when the premium exceeds the present value of the estimated future cash flows under the insurance contract.

	AASB 1038	AASB 119	Staff views
Discount rate	*Projected cash flow and Accumulation approaches* A risk-free discount rate based on current, observable, objective rates that relate to the nature, structure and term of the future obligations, unless the benefits are contractually linked to the performance of the assets held, in which case the discount rate is based on market returns on the assets backing life insurance liabilities.	Determined by reference to market yields at the end of the reporting period on high quality corporate bonds or, where there is no deep market in such bonds, the market yields at the end of the reporting period on government bonds. The discount rate reflects the time value of money, including the estimated timing and amount of benefit payments and the currency in which the benefits will be paid. The discount rate does not reflect: (a) actuarial risk; (b) investment risk; (c) entity-specific credit risk borne by the entity's creditors; or (d) the risk that future experience may differ from actuarial assumptions. Under AASB 119, an entity discounts the whole of a post-employment benefit obligation, even if part of the obligation falls within twelve months of the end of the reporting period.	While the requirements in AASB 1038 and AASB 119 in relation to discount rates are potentially different, in practice discount rates for defined benefit obligations are generally determined in a manner consistent with the approach required for determining discount rates for life insurance obligations that are not contractually linked to the performance of assets backing the obligations. In practice, most obligations for defined benefit plans are discounted in accordance with AASB 119 at a rate determined by reference to market yields on government bonds, which is generally comparable to a 'risk-free' rate.

	AASB 1038	AASB 119	Staff views
Treatment of changes in assumptions regarding cash flows	*Projected cash flow approach* Differences between assumed and actual cash flows are included in profit or loss in the period in which the difference arises. The impact of changes in assumptions relating to future cash flows are recognised as adjustments to planned margins and spread over the remaining contract periods, except for changes in: (a) estimated present value of expenses over revenues ('onerous contract'); (b) any subsequent reversal of (a); and (c) discount rates and related economic assumptions; which are included in profit or loss in the period in which they occur. *Accumulation approach* Differences between assumed and actual cash flows are included in profit or loss in the period in which the difference arises. The impact of changes in assumptions relating to future cash flows is recognised in the profit or loss in the period in which the changes occur.	An entity shall recognise gains or losses on the curtailment or settlement of a defined benefit obligation when the curtailment or settlement occurs. An entity is permitted to recognise: (a) a portion of its actuarial gains and losses as income or expense if the net cumulative unrecognised actuarial gains and losses at the end of the previous reporting period exceeded the greater of: (i) 10% of the present value of the defined benefit obligation at that date (before deducting plan assets); and (ii) 10% of the fair value of any plan assets at that date; (b) a portion of its actuarial gains and losses as income or expenses determined on the basis of a systematic method that results in faster recognition of actuarial gains and losses than the approach described in (a) above, provided that the same basis is applied to both gains and losses and the method is applied consistently from period to period; or (c) all actuarial gains or losses in the statement of comprehensive income in the period in which they occur, provided that the entity applies this approach in respect of all of its defined benefit plans and all of its actuarial gains and losses.	Under either Standard, an entity would recognise any differences between assumed and actual cash flows in the period in which the difference arises. All three approaches (accumulation, projected cash flows and AASB 119) currently differ in respect of how changes in assumptions regarding future cash flows are treated. However, it is relevant to note that the IASB is proposing to amend IAS 19 *Employee Benefits* to require that entities recognise the impacts of all changes in assumptions regarding defined benefit obligations in the period in which they occur. If these proposals are adopted, the treatment of changes in assumptions regarding future cash flows under AASB 119 would be more closely aligned with the treatment required under the accumulation approach in AASB 1038. It is also relevant to note that the treatment of remeasurement changes under the accumulation approach is consistent with the overall approach in ED 179 in respect of remeasurement changes.

	AASB 1038	AASB 119	Staff views
Remeasurement of margins	*Projected cash flow approach* Planned margins are locked in at inception, released over time to profit or loss in accordance with an appropriate driver and only remeasured when a liability adequacy test determines that the present value of future expenses exceeds the present value of future revenues. *Accumulation approach* Any acquisition costs that are not expected to be recouped are recognised in profit or loss immediately.	Expected administration expenses can be either deducted from the expected return on plan assets or included in the calculation of the defined benefit obligation. Accordingly, changes in estimated future administration costs are treated in accordance with the entity's accounting policy on actuarial gains and losses.	All three approaches currently differ in respect of how remeasurement changes in margins are treated. However, the IASB's proposals to amend IAS 19 to require that entities recognise all remeasurement changes in defined benefit obligations in the period in which they occur would more closely align the treatment of remeasurement changes under AASB 119 with the treatment of remeasurement changes required under the accumulation approach. It is also relevant to note that, in the context of its Insurance Contracts project, the IASB has tentatively decided that a residual margin should not be adjusted in a subsequent reporting period for changes in estimates of future cash flows (as is currently required under AASB 1038 for entities applying the projected cash flow approach) and should be released to profit or loss over the coverage period of the insurance contract in a systematic way that best reflects the exposure from providing insurance coverage.

Some practical implications of measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 1038 for life insurance obligations

18. As is evident from Table A above, defined benefit obligations are measured largely on the same conceptual basis under AASB 119 as life insurance liabilities are under AASB 1038. Moreover, AASB 1038 permits an entity to measure obligations arising from life insurance contracts on the basis of the net accumulated benefits to policyholders (accumulation approach), which is arguably similar to the liability measurement approach in AASB 119 for defined benefit obligations. Accordingly, the approach under AASB 1038 could produce a similar outcome to that which would otherwise be determined under the approach in AASB 119 for defined benefit liabilities. Nevertheless, as AASB 1038 has been drafted with life insurers in mind, it potentially poses a number of scope, application and interpretation issues that could cause obligations to defined benefit members arising from insurance arrangements being treated differently in ostensibly similar circumstances, as discussed below.

Scope of AASB 1038

19. Under AASB 1038, the unit of account is the whole contract. Accordingly, if AASB 1038 is applied to a contract, it is implicit that it applies to all components of that contract, notwithstanding that some of the contract components may not be in the nature of insurance. In the context of a life insurer, such an approach is arguably appropriate because life insurers are generally prohibited from conducting activities that are unrelated to their life insurance activities. However, in a superannuation context the approach in AASB 1038 is potentially problematic because:

    (a) it would arguably be inconsistent with the Board's decision that the replacement Standard for AAS 25 *Financial Reporting by Superannuation Plans* should require defined benefit members' accrued benefits to be measured in accordance with the approach under AASB 119 for defined benefit obligations; and

    (b) it would incorrectly imply that insurance risk is the principal risk attributable to defined benefit entitlements.

<u>Measurement of accrued benefits in accordance with AASB 119</u>

20. Appendix A of AASB 4 *Insurance Contracts* and paragraph 20.1 of AASB 1038 define an insurance contract as:

    > "..a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder."

    Paragraphs B22-B28 of Appendix B to AASB 4 (reproduced as paragraphs 19-25 of the Appendix to AASB 1038) clarify that:

    (a) insurance risk is significant if, and only if, an insured event could cause an insurer to pay significant additional benefits in any scenario;

    (b) additional benefits are amounts that exceed those that would be payable if no insured event occurred; and

(c) the significance of insurance risk should be assessed on a contract-by-contract basis.

21. As discussed earlier in this Agenda paper, most defined benefit arrangements provided by Australian plans cater for circumstances where a member dies prior to their retirement date by providing a death benefit. Such benefits are normally provided in lieu of the promised retirement benefit and are calculated, in part, on the basis of the benefit payable to the member had they lived to retirement age.

22. Paragraph 2.3.1 of AASB 1038 states that:

> "Some life insurance contracts contain both an insurance component and a deposit component. In some cases, an insurer is permitted to unbundle those components."

In addition, paragraph 20.1 of AASB 1038 clarifies that, for the purpose of the Standard, a deposit component is:

> "…a contractual component that is not accounted for as a derivative under AASB 139 *Financial Instruments: Recognition and Measurement* and would be within the scope of AASB 139 if it were a separate instrument."

23. Following on from the discussion in paragraph 21 of this Agenda paper, a contract for defined benefit entitlements might be considered a 'bundled' contract comprising, among other things, a retirement benefit component and a life insurance component. In addition, the retirement benefit component would arguably be considered to be a deposit component under AASB 1038 on the basis that its value would change in response to a change in the relevant salary index and/or vesting scale specified in the plan's trust deed.

24. Paragraph 2.3.2 of AASB 1038 states that:

> "Unbundling is permitted if the insurer can measure the deposit component separately."

As discussed in paragraphs 32-33 of this Agenda paper, a number of respondents to ED 179 noted that, in some circumstances, the insurance component may not be readily identifiable from the retirement benefit, especially where the defined benefit is not expressed in the trust deed in terms of a retirement benefit component plus an insured component. Accordingly, in these circumstances it would be difficult to deal with only the insurance component of the defined benefit under AASB 1038. Where the deposit component of a life insurance contract cannot be separately measured from the insurance component, AASB 1038 requires all of the components of the contract to be accounted for as a life insurance liability.

25. As discussed in Agenda paper 14.1 to the Board's April 2010 meeting, many respondents consider that the insurance proposals in ED 179 would impose significant costs on plans and ADFs. In light of the discussion in Table A and paragraph 18 of this Agenda paper, imposing these costs on defined benefit plans is arguably not justified. It is also relevant to note that, if the insurance component of a defined benefit members' accrued benefits were to be measured in accordance with AASB 1038, AASB 1038 may need to be amended to clarify that the retirement benefit component should be measured in accordance with the approach in AASB 119 for defined benefit liabilities

rather than the relevant principles and requirements in AASB 1038. Under AASB 1038, the retirement benefit component of a member's accrued benefits would arguably be measured at fair value through profit or loss.

Significance of insurance risk in a superannuation context

26. Diagram C (refer to page 6 in this Agenda paper) provides a diagrammatical representation of the relationship between the retirement and insurance components of a member's defined benefit entitlements. As is evident from Diagram C, when the member joins the plan at age 35 years, their accrued retirement benefit is relatively small in comparison to their potential death benefits at that age. However, over time their accrued retirement benefit increases relative to their insurance benefits up to the estimated retirement age.

27. While the benefit arrangements depicted in Diagram C are typical of many defined benefit arrangements provided in Australia, it is relevant to note that:

    (a) while the potential death benefit payable to a relatively young member is large in comparison to their accrued retirement benefit, the 'best estimate' of the death benefit payable under AASB 119 would be much smaller due to the relatively lower mortality assumed for younger members (this is demonstrated in paragraphs 13-15 of this Agenda paper); and

    (b) most defined benefit members, particularly members of private sector plans, are closer to their retirement age than they are to the age at which they joined their plan.

    Accordingly, the insurance component of most defined benefit obligations is relatively small in comparison to the retirement component.

No explicit insurance premium associated with 'self-insured' defined benefit arrangements

28. A number of respondents to ED 179 noted that contributions paid by and in respect of 'self-insured' defined benefit members do not include an explicit insurance premium component. While the plan's actuary would normally estimate the amount of the insurance 'premium' (primarily for tax purposes), the way in which notional insurance premiums are calculated for some plans would not be determined on the same basis that a life insurer would determine the premium for a similar life insurance contract. Accordingly, it is possible that the 'price' set by a plan's actuary for the insurance component of 'self-insured' defined benefit entitlements may be more or less than the present value of the future receipts from and payments to such members. In both cases, this difference could have significant practical implications in the context of the approach in AASB 1038 and the proposals in ED 179.

29. AASB 1038 permits an entity to measure obligations arising from life insurance contracts on the basis of an accumulation approach, which is arguably similar to the liability measurement approach in AASB 119 for defined benefit obligations. However, an accumulation approach is only permitted when the result would not be materially different from the result under a projected cash flow approach. Under a projected cash flow approach, an insurance liability is calculated as the sum of:

    (a) the present value of future receipts from and payments to policyholders; and

(b) the planned margin of revenues over expenses, which is calculated as the difference between the premium charged and the present value of future receipts from and payments to policyholders.

30. As noted in Table A in this Agenda paper, planned margins of revenues over expenses may include a risk margin, a service margin and other margins such as a selling margin and a margin to recover acquisition costs. However, AASB 1038 does not require a life insurer to separately calculate any of these margins. Accordingly, these margins are implicit in a life insurance liability measured under AASB 1038 to the extent that the amount of the premium exceeds the net present value of the obligation assumed.

31. As alluded to in paragraph 28 of this Agenda paper, the notional premium set by a plan's actuary for 'self-insured' defined benefit entitlements is unlikely to equate with the net present value of the associated insurance obligations. Accordingly, under AASB 1038:

(a) when the notional premium is greater than the present value of the future receipts from and payments to policyholders **plus** the portion of any acquisition costs expected to be recouped, the amount of the obligation measured under the projected cash flow approach would be greater than the amount of the same obligation measured under the accumulation approach. Consequently, the plan would arguably be required to apply the projected cash flow approach to measuring any insurance obligations to defined benefit members under AASB 1038;

(b) when the notional premium is greater than the present value of the future receipts from and payments to policyholders, AASB 1038 requires the planned margin to be released over time to profit or loss in accordance with an appropriate driver. As noted by several respondents to ED 179, this would seem to imply that the plan would need to disclose detailed margin analysis as required under paragraphs 14.1.5 and 14.1.6 of AASB 1038; and

(c) when the notional premium is less than the present value of the future receipts from and payments to policyholders (that is, a planned margin of expenses over revenues exists), AASB 1038 requires that a liability adequacy test be performed and any loss recognised immediately in the statement of comprehensive income. Such requirements might be considered excessive in the context of the proposals in ED 179, particularly the proposal that a plan measure defined members' accrued (retirement) benefits in accordance with the approach in AASB 119 for defined benefit liabilities at the end of each reporting period.

Accordingly, the treatment of the insurance component of defined benefit entitlements could differ, subject to the amount the plan's actuary determines to be the notional premium component of the contributions in relation to the entitlements.

No readily identifiable insurance component

32. As noted above, a number of respondents suggested that the amount of any 'self-insured' defined benefit death benefits (and/or TPD benefits) may not be readily identifiable where the defined benefit is not expressed in the trust deed in terms of a retirement benefit amount plus an insurance amount. In these circumstances, the self-insured component could arguably consist of the benefit above the members':

(a) vested benefits;

(b) accrued retirement benefit; or

(c) accrued benefit (including retirement, death and TPD benefits).

33. Where defined members' entitlements are not expressed in the trust deed in terms of a retirement benefit amount plus an insured component, the amount of the insured component may vary between plans, depending upon how the benefit amount is measured (vested, accrued retirement or accrued). It might also be expected to vary in line with changes in the level of a plan's assets relative to its defined benefit members' entitlements where death or TPD benefits are reinsured with an external insurer. For instance, in circumstances where the reinsurance cover does not vary with the plan's financial position, a defined benefit 'deficiency' might be considered, at least in part, to be the cost of 'self-insured' benefits. Accordingly, requiring plans to measure any obligations to defined benefit members arising from insurance arrangements in accordance with the principles and requirements in AASB 1038 could give rise to different reporting outcomes for ostensibly similar circumstances.

Calculation of incurred but not reported (IBNR) obligations

34. Some respondents to ED 179 noted that IBNR obligations may be difficult to reliably measure in a superannuation context, particularly for plans with self-insured defined benefit members. This is because, unlike life insurance companies, defined benefit plans generally have an insufficient number of members to derive a statistically significant/reliable IBNR estimate for the population in question. However, in the context of most defined benefit plans, the likelihood of the actuary not being aware of a potential death claim is arguably low due to the nature of the relationship that normally exists between a plan, the employer sponsor and the actuary. Accordingly, in most cases an IBNR for a cohort of defined benefit members is unlikely to be material.

Arguments for and against measuring the insurance component of defined benefit obligations in accordance with the measurement approach in AASB 119 for defined benefit obligations

35. There are a number of arguments in favour of measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 119 for measuring defined benefit obligations, including:

(a) it would be relatively easier (and therefore potentially less costly) for a plan that has defined benefit members to apply than the proposed approach in ED 179.

As discussed above, in determining a 'best estimate' of future benefit payments under AASB 119, an actuary would normally calculate the value of the past service benefits in respect of all future benefit payments, including death and TPD payments. Accordingly, the 'best estimate' would incorporate the present value of the expected (non-reinsured) benefits payable in the future as a consequence of members becoming deceased or totally and permanently disabled in the future;

(b) as discussed in paragraph 18 of this Agenda paper, it could facilitate a similar liability amount as would otherwise be measured under the approach in AASB 1038 for life insurance obligations;

(c) it would avoid any potential accounting discontinuities from arising in circumstances where a plan reinsures its defined benefit members' death and TPD benefits with an external insurer but inadvertently provides 'self-insured' death and TPD benefits as a consequence of, for instance, insufficient assets to cover defined benefit members' accrued benefits; and

(d) it would be potentially less problematic in the context of a replacement Standard for IFRS 4 *Insurance Contracts*.

During their joint March 2010 meeting, the IASB and FASB tentatively decided that the scope of a replacement standard for IFRS 4 *Insurance Contracts* should exclude, among other things, employers' assets and liabilities under employee benefit plans and retirement benefit obligations reported by defined benefit retirement plans.

36. There are also a number of arguments against measuring any obligations to defined benefit members arising from insurance arrangements under the approach in AASB 119 for measuring defined benefit obligations, including:

(a) it would arguably be inconsistent with the Board's policy of transaction-neutrality on the basis that a plan that 'self-insures' its defined benefit members' death or TPD benefits would account for such benefits differently from how an insurer would account for the same type of insurance obligations; and

(b) it would potentially give rise to accounting discontinuities between:

(i) 'self-insured' defined benefit arrangements and defined contribution arrangements that are reinsured with an external insurer; and

(ii) defined benefit arrangements that are reinsured with an external insurer and defined contribution arrangements that are similarly reinsured.

As discussed in paragraphs 19-34 of this Agenda paper, while the liability measurement approaches in AASB 119 and AASB 1038 are conceptually similar, there are a number of differences which might cause defined benefit obligations and life insurance obligations that are ostensibly the same to be treated differently under the two Standards.

Staff view

Staff consider that:

(a) on cost-benefit grounds; and

(b) to facilitate obligations to defined benefit members arising from insurance arrangements that are entirely 'self-insured' being treated in a manner consistent with the way in which obligations to defined benefit members that are partially 'self-insured' or reinsured with an external insurer are treated;

the replacement Standard for AAS 25 should require all obligations to defined benefit members arising from the insurance arrangements provided to them by their plan to be measured in accordance with the requirements in AASB 119 for defined benefit obligations.

Board members should note that an implication of this is that insurance arrangements provided to defined benefit members would potentially be treated differently from insurance arrangements provided to defined contribution members under a replacement Standard for AAS 25. Staff intend to discuss the treatment of insurance arrangements provided to defined contribution members at the Board's July 2010 meeting.

APPENDIX A - Selected paragraphs from ED 179 *Superannuation Plans and Approved Deposit Funds*

Insurance Contracts

21 Obligations and assets arising from insurance contracts issued by a superannuation plan or approved deposit fund shall be measured in accordance with the principles and requirements applicable to life insurance contracts under AASB 1038.

…

50 A superannuation plan or approved deposit fund that issues insurance contracts shall disclose information in relation to such contracts in accordance with the disclosure principles and requirements applicable to life insurance contracts under AASB 1038.

…

BASIS FOR CONCLUSIONS

…

Obligations and Assets Arising from Insurance Contracts

BC57 The AASB noted that many superannuation plans offer life insurance cover to their members and some also offer income protection to their members, and that AAS 25 is silent about how such arrangements should be treated. The AASB also noted that the forms the insurance arrangements take differ across plans. The AASB considered the various forms of insurance arrangements, including those where life insurance cover is:

(a) offered to members directly by an external insurer, with the plan only acting as agent;

(b) offered to defined contribution members whose accounts are charged on a weekly or monthly basis for the relevant premium; or

(c) provided to defined benefit members in relation to their projected retirement benefit.

BC58 The AASB noted that, in the case of (a), the superannuation plan is not likely to be exposed to significant insurance risk with respect to its members' insurance arrangements as the members or their beneficiaries would not generally have recourse to the assets of the plan, even in the event that the insurer fails. Accordingly, in such circumstances the plan would not, for example, recognise insurance premiums paid on behalf of members or proceeds from insurance claims received on behalf of members as expenses or revenues. However, in cases (b) and (c), the plan would potentially be exposed to significant insurance risk with respect to any outstanding insurance claims and any incurred but not reported claims. Accordingly, in such circumstances the plan would be expected to recognise, for example, insurance premiums charged to members as revenues and premiums ceded to reinsurers as expenses. The AASB also noted that, in cases (b) and (c), the plan may or may not reinsure 100% of the risk with a third party insurer.

BC59 The AASB considered a number of alternative approaches to accounting for insurance contracts issued by superannuation plans, including requiring the application of:

(d) AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*;

(e) AASB 4 *Insurance Contracts*;

(f) AASB 1023; and

(g) AASB 1038.

The AASB also considered the nature of the various arrangements and the cases where the ultimate risk to the plan is mitigated by reinsurance. The AASB noted that, under the insurance standards, an insurer

that reinsures some or all of its risk is nevertheless considered to be exposed to the direct risks of entering into insurance contracts.

BC60 The AASB considered that the insurance contacts entered into by many superannuation plans would meet the definition of an insurance contract, and that most would be akin to life insurance contracts, and would meet the life insurance contract definition were it not for the fact that the definition applies only to contracts regulated under the *Life Insurance Act 1995*. Accordingly, the AASB concluded that ED 179 should propose that superannuation plans account for their insurance contracts by applying the recognition, measurement and disclosure requirements of AASB 1038 on the basis that:

(h) insurance contracts entered into by plans generally have the same characteristics as life insurance contracts, and AASB 1038 has comprehensive requirements dealing with both insurance contract liabilities and assets;

(i) AASB 4 does not include initial liability recognition requirements or comprehensive measurement requirements;

(j) the liability recognition and measurement requirements of AASB 1023 are based on a premium deferral model, which would not suit the circumstances of plans because they would generally not receive significant premiums in advance that could be deferred; and

(k) AASB 137 applies only to liability recognition and measurement.

BC61 The AASB noted that AASB 1038 includes requirements relating to direct insurance contracts and reinsurance arrangements that would potentially change the way in which many superannuation plans currently account for their members' insurance arrangements. In particular, the AASB noted that, under AASB 1038, a plan that issues insurance contracts to its members would be required to recognise:

(l) insurance contract premiums and claim recoveries as income;

(m) insurance contract claims and premiums ceded to reinsurers as expenses;

(n) claim recoveries and other inflows not yet received from reinsurers as assets; and

(o) obligations arising from insurance contracts as liabilities.

APPENDIX B - Discussion and staff analysis from Agenda paper 6.2 to the Board's December 2009 meeting regarding Specific Matter for Comment (e) in ED 179 - whether there are any significant practical difficulties that would inhibit the reliable measurement of obligations and assets arising from insurance contracts issued by a plan or ADF in accordance with the principles and requirements in AASB 1038 *Life Insurance Contracts*

1. Sixteen of the twenty respondents specifically commented on the proposals in ED 179 in respect of the measurement of obligations and assets arising from insurance contracts issued by a plan or ADF. Thirteen of these respondents acknowledged that a plan that:

   (a) 'self-insures' members' benefits; and/or

   (b) pays discretionary insurance benefits in addition to the benefits provided by an external insurer; and/or

   (c) is liable for insurance claims under its trust deeds that have been rejected by an external insurer;

   is potentially exposed to insurance risk and therefore should arguably provide enhanced disclosures regarding these risks.

2. However, all of the respondents commented that significant practical difficulties of applying the principles and requirements in AASB 1038 in a superannuation context could potentially undermine the provision of useful information to users. Ten of these respondents indicated that they considered the likely cost of applying the proposals would significantly outweigh any benefits to users. In addition, nine of these respondents recommended that the replacement Standard for AAS 25:

   (a) should not require a plan or ADF to recognise or measure obligations or assets arising from insurance contracts issued by the entity; and/or

   (b) could require all obligations in respect of defined benefit entitlements, including obligations that have an insurance element or nature, to be included in the calculation of members' accrued benefits (assuming the Board agrees that obligations for defined benefit members' entitlements should be measured at their accrued benefits).

3. Respondents identified a number of significant practical difficulties, including:

   (a) under AASB 1038, an explicit insurance contract exists between the insurer and the policyholder. However, for plans that provide insurance arrangements through an external insurer, the insurance contract is between the member and the external insurer, and the trustee is merely holding the policy for the benefit of its members. Moreover, the *Life Insurance Act* (1995) generally prohibits entities other than registered life insurance companies from issuing life insurance contracts, although plans that self-insure death and disability benefits of their defined benefit members are potentially exempted from this provision. Accordingly, it is unclear how the principles and requirements in AASB 1038 apply to non-self-insured arrangements;

   (b) contributions paid by and in respect of self-insured defined benefit members do not include an explicit insurance premium component. While the plan's actuary

would normally estimate the amount of this component for tax purposes, the way in which notional insurance premiums are calculated by some plans may not be consistent with the way in which the plan's death and total and permanent disability (TPD) obligations are calculated for the purpose of measuring accrued benefits. For instance, future death and TPD benefits are estimated for all future years but the notional premium would normally be calculated on the basis of the likelihood of a claim during the reporting period. In addition, some of the assumptions used by the actuary to estimate notional insurance premiums (such as discount rates for measuring income protection benefits) may be inconsistent with the approach proposed under ED 179;

(c) for some plans, a member's resignation benefits and death and/or TPD benefits are linked in the sense that the resignation benefits are measured on the basis of the member's past service and the death and/or TPD benefits are measured on the basis of the member's potential future service. Accordingly, under the AASB 119 approach, a plan that has members whose resignation and death and/or TPD benefits are linked would generally accrue the member's full entitlement, including any future service element, for the purpose of measuring the defined benefit obligation. In these cases, the death and/or TPD component of a benefit payment would not be separately calculated by the plan or, if applicable, its administrator;

(d) the amount of any self-insured defined death and/or TPD benefit may not be readily identifiable where the benefit is not defined in terms of an accrued amount plus an insured component. In these circumstances, the self-insured component could arguably consist of the benefit above the members':

(i) vested benefits;

(ii) accrued retirement benefit; or

(iii) accrued benefit;

(e) incurred but not reported (IBNR) claims would be difficult to reliably measure in a superannuation context, particularly for plans with self-insured defined benefit members, because defined benefit plans generally have an insufficient number of members to derive a statistically significant/reliable IBNR estimate. In contrast, insurance companies typically cover a far greater number of insured lives and therefore are able to measure IBNR claims more reliably. However, one respondent noted that it may be possible to reliably measure IBNR for the purpose of including the amount in an accrued benefits amount; and

(f) some group life policies provided to members through plans are 'bundled' products. Accordingly, to comply with the proposals, the plan would need to 'unbundle' the product to account for the insurance component separately.

4. Ten of the respondents expressed the view that requiring a plan or ADF to recognise and measure obligations and assets arising from insurance contracts issued by the entity would impose additional costs on plans which arguably cannot be justified on cost-benefit grounds. For instance, respondents noted that:

(a) the recognition of assets and liabilities in accordance with AASB 1038 would result in significant additional costs arising from:

(i) the set up of a valuation model to calculate insurance liabilities;

(ii) the setting of assumptions for the calculation of outstanding claims liabilities; and

(iii) the collection of data at the measurement date;

(b) the detailed margin analysis required under AASB 1038 is likely to impose considerable costs on plans and ADFs, primarily because trustees are unlikely to possess the requisite skills and therefore would be forced to rely on actuaries to provide the necessary information;

(c) because the insured portion of benefit payments are not currently separately calculated, administrators would need to make changes to their systems to facilitate the calculation of insurance claims expense. The costs incurred in making these changes would be expected to be passed on to plans and, ultimately, to members;

(d) as specified in the SIS Act, the provision of insurance benefits is an ancillary benefit and is incidental to the primary purpose of plans and ADFs, which is to provide retirement benefits. Accordingly, insurance risks are generally immaterial in the context of all the risks a plan is exposed to as a whole. In particular:

(i) under AASB 119, death and TPD experience gains and losses generally comprise a small part of total experience gains and losses in relation to defined benefit members' accrued benefits; and

(ii) any insurance risks a plan might be exposed to through its reinsurer would be expected to be immaterial in the context of the total risks the plan is exposed to because the trustee would normally transfer a substantial amount of the risks to the external insurer. For instance:

- the plan's trust deed would normally limit the plan's liability with respect to insurance benefits to the amount approved and remitted by the insurer under the policy and/or prohibit discretionary insurance benefit payments being paid in excess of the amounts approved and remitted by the external insurer; and
- the plan's product disclosure statements and other communications to members would normally confirm that the insurance benefits provided to members are provided through an external insurer and that the plan is not responsible for paying claims that have been denied by the insurer.

Accordingly, it is unlikely that a plan would be exposed to significant insurance risks through group life insurance arrangements. The only risks that plans could be exposed to through such arrangements are liquidity risk (as a consequence of asset-liability mismatches where benefits are paid before the proceeds from the external insurer have been received) and operational risks (in relation to administering policies);

(e) while self-insurance arrangements could expose a plan to significant insurance risk, very few plans self-insure on the basis that APRA discourages the practice. In addition, the risks that a plan that self-insures is exposed to are progressively becoming smaller as the current cohort of defined benefit members approach retirement age. Moreover, those plans that do self-insure are required to be under actuarial management and the actuary is required to certify the amount of any self-insurance provisions under the *Income Tax Assessment Act* (1997) (Tax Act); and

(f) 'unbundling' insurance products is likely to impose additional costs on plans that would not be matched in terms of more useful information for users, particularly if the insurance risk is insignificant.

Accordingly, these respondents recommended that it would be sufficient for the replacement Standard for AAS 25 to require enhanced disclosures in relation to the risks a plan or ADF is exposed to through the insurance arrangements it offers its members, particularly self-insured arrangements, and how the entity managed those risks.

5. Of the sixteen respondents that commented on the insurance contracts proposals, eleven indicated that, if the Board decided that the proposals in relation to obligations and assets arising from insurance contracts should be retained, further guidance should be provided as to how a plan or ADF would apply the principles and requirements in AASB 1038 in a superannuation context. In particular, respondents noted that further guidance would be necessary in relation to:

   (a) the terminology used in AASB 1038 as it is specific to the life insurance industry. Accordingly, preparers and auditors would need to apply judgement in applying the terminology in AASB 1038 in a superannuation context, which may give rise to different reporting outcomes for ostensibly similar situations;

   (b) the distinctions between 'self-insured', 'agency' and 'non-agency' insurance arrangements and the specific accounting requirements that would apply to these different types of arrangements under AASB 1038;

   (c) whether indexed life-time pensions ('life-contingent annuities and pensions') would be included in the measurement of insurance obligations and assets. Some defined benefit members have an entitlement to a pension, at their election, upon retirement and some respondents noted that this amount would need to be separated out from the defined benefit liability; and

   (d) whether the different types of insurance obligations (death, TPD/income protection) would need to be presented or disclosed separately.

6. In light of the perceived difficulties associated with accounting for obligations and assets arising from insurance contracts issued by a plan or ADF in accordance with AASB 1038, and the likelihood that the cost of providing the information would outweigh any benefits to users:

   (a) four respondents recommended that a plan or ADF which is exposed to significant insurance risk should be required to disclose information in the notes to the financial statements in relation to, for instance, the insurance arrangements it provides to its members, the risks the entity is exposed to through such arrangements, and any reserves the entity has established in respect of the risks;

   (b) three respondents recommended that obligations and assets arising from insurance contracts issued by a plan or ADF be measured in a manner consistent with the basis adopted for measuring members' benefits;

   (c) one respondent recommended that the Board undertake further consultation with the industry to understand the extent of insurance risk borne by plans and ADFs; and

(d) one respondent recommended that the Board should do nothing on the insurance contracts issue until the IASB's proposed approach for insurance contracts has been finalised.

7. Table 6 in Agenda paper 6.3 to this meeting provides respondents' detailed comments regarding the measurement of obligations and assets arising from insurance contracts issued by a plan or ADF in accordance with AASB 1038.

Staff analysis

8. Staff are aware that, since the publication of ED 179, a significant number of trustees have reviewed the insurance arrangements provided by their plans and, as a consequence of these reviews, many have made changes to the administrative arrangements and formal documentation associated with their insurance arrangements. For instance, some trustees have amended their:

   (a) trust deeds to ensure that:

      (i) the death and TPD benefits prescribed in their trust deeds match the death and TPD provided by the their plans' reinsurers; and

      (ii) the trustee cannot make any *ex gratia* insurance payments to members; and

   (b) formal communication documents to ensure members are aware that if the plan's reinsurer denies an insurance claim by a member, the plan is not responsible to make good on that claim.

9. Staff consider that it may be difficult to draft principles-based guidance that permits plans and ADFs to consistently and reliably distinguish between circumstances where life insurance cover is:

   (a) offered to members directly by an insurer, with the plan only acting as agent; and

   (b) administered by the plan on behalf of the insurer but the plan is not acting as an agent of the insurer.

   Consistent with the views expressed by a number of respondents, staff also consider that the changes initiated recently by trustees with respect to their plans' insurance arrangements could be considered to have the effect of reducing any insurance risk to which plans might be exposed to immaterial levels. Accordingly, such plans would not be required to account for any obligations or assets arising from insurance contracts issued to their members in accordance with AASB 1038.

10. If the proposals in ED 179 in relation to obligations and assets arising from insurance contracts are retained, staff are concerned that:

   (a) a plan or ADF that provides insurance arrangements to its members through an external insurer would disclose little or no information about these arrangements because they are not considered to expose the plan or ADF to 'significant' insurance risk; and

   (b) a plan that self-insures its members' death and TPD benefits would be required to undertake a significant amount of work and incur costs to measure the obligations and assets arising from its self-insurance arrangements (in addition that which the

plan is currently required for actuarial reporting purposes) for relatively little benefit to users in terms of the additional information.

APPENDIX C - The different approaches available under Australian Actuarial Standards for determining accrued death or total and permanent disability (TPD) benefits

Accrued Benefit approach

1. Under the Accrued Benefit approach, the amount of the death or TPD benefit would be determined to be either:

   (a) the accrued proportion of the death or TPD benefit; or

   (b) the same proportion of the death or TPD benefit bears to the retirement benefit at normal retirement date.

   It is relevant to note that, if a member's accrual rate is constant over their potential period of membership, the amount of the member's death or TPD benefit would be the same amount calculated under (a) and (b).

2. Using the fact pattern for Member A in paragraph 8 in the body of this Agenda paper, and assuming Member A's accrual rate is the constant over their estimated period of membership, the amount of Member A's past service death or TPD benefit in each year after their 45th birthday under the Accrued Benefit approach would be 43% (15 years membership/35 years possible membership) of its total value.

Advantages and Drawbacks of the Accrued Benefit Approach

3. The Accrued Benefit approach is relatively more easy (and therefore potentially less costly) to apply than the Proportionate approach (which is discussed in paragraphs 4-5 of this Appendix). In addition, it may be a reasonable proxy for the Proportionate approach in some circumstances. However, by assuming death or TPD benefits are a fixed proportion of a member's total benefits, the amounts measured under the Accrued Benefit approach arguably do not reflect the changing nature of life insurance risk over a member's lifetime.

Proportionate Approach

4. Under the Proportionate approach, the value of a member's death or TPD benefit would be determined at time *t* to be:

$$\text{Total death or TPD benefit payable in year } t \;*\; \frac{\text{Membership to date of calculation}}{\text{Membership at end of year } t}$$

   where *t* is the variable for each future year up to the normal retirement date.

5. Using the fact pattern for Member A in paragraph 8 in the body of this Agenda paper, the value of Member A's past service death or TPD benefit in each future year under the Proportionate approach is a diminishing fraction of the total benefit, as follows:

   - at 46 years of age, Member A's past service death or disablement benefit would be 15/16 of her total death or disablement benefit at 46 years of age; and
   - at 47 years of age, Member A's past service death or disablement benefit would be 15/17 of her total death or disablement benefit at 47 years of age (and so on).

Advantages and Drawbacks of the Proportionate Approach

6. There are a number of advantages associated with the Proportionate approach, including:

   (a) the amounts of insurance benefits calculated over a member's membership period reflects the changing nature of life insurance risk over time; and

   (d) it is used by some actuaries in their calculations of defined benefit obligations under AASB 119.

7. There are also a number of drawbacks associated with the Proportionate approach, including:

   (a) it is relatively more difficult (and therefore potentially more costly) to apply than the Accrued Benefit approach; and

   (b) it does not allow the insurance component to be separately measured from the past service component. Consequently, under the proportionate approach the past service and insurance components are measured as one liability.