STAFF PAPER

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IASB Meeting

Project	**Insurance contracts**		
Paper topic	Residual margin – two approaches		
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Purpose of paper

1. This paper contrasts the two approaches to the residual margin:
   (a) Locking in the residual margin at inception, as proposed in the ED.
   (b) Adjusting the residual margin to reflect some or all changes in estimates.
2. This paper should be read together with the cover note (agenda paper 6), and after considering agenda paper 6A *Which changes in estimate adjust the residual margin?*
3. This paper:
   (a) Contrasts the rationale for an unlocked residual margin with that for a locked-in margin.
   (b) Discusses the consequences of the two approaches.
   (c) Indicates staff views on the two approaches.
4. This session is educational and we do not ask the Board for decisions. However, we ask you to indicate any leanings you might have and indicate if there is further analysis you would need to make decisions.

Rationale for locking or unlocking the residual margin

5. Paragraphs 6-22 discuss two views of the residual margin. One view would lead to the conclusion that the residual margin should be unlocked to reflect changes in

estimate. The other would lead to the conclusion that the residual margin should be locked in at inception.

Unlocked residual margin

6. Some believe that the residual margin should be adjusted to reflect changes in estimate, ie unlocked. In June 2011, the Board tentatively decided that the residual margin should be unlocked for changes in estimates of future cash flows. The primary reasons were:

   (a) *To ensure consistency with day 1 measurement*. Some argued that locking in the margin at inception would introduce an inconsistency between the measurement of the insurance contract on day one (no day one gain, but immediate day one loss) and the subsequent measurement. This is because they believe that the measurement of the insurance contract liability on day 1 includes, through the residual margin, a measure of the expected profitability (other than the profit for bearing risk) of the insurance contract. As estimates change during the life of the contract, the expected profitability of that contract changes. Locking in the residual margin at inception does not show the changes in expected profitability.

   (b) *To avoid recognition of profit in future periods if a contract is loss-making overall.* Locking in the residual margin could lead to a situation in which an insurer recognises losses in a period, even though there will be gains allocated from the release of the margin in the current and future periods. Furthermore, it could mean that a change in estimates results in recognition of expense in one period that is reversed in a later period through release of the residual margin. Many believe this effect is counterintuitive and will be difficult to explain to users. Some also state that the release of residual margin in future periods would not be a faithful representation of the profit in those future periods.

7. In addition, the Board noted that locking in the residual margin might result in the manipulation of profit through changes of estimates. If the residual margin is

locked in, changes in estimates after inception would be recognised in profit or loss. In contrast, had those assumptions been made at inception, they would have been reflected in a different residual margin. Some observe that market participants generally dislike adverse surprises and that a locked in margin would create an incentive for insurers to overstate the estimates of cash flows at inception with a subsequent benefit to profit or loss in later periods.

8. In the staff's view, the arguments supporting an unlocked residual margin arise from the view of the residual margin as primarily representing the expected future profit arising from the insurance contract. The residual margin is not recognised on day one because the expected future profit has not yet been earned on day one. Instead, it is allocated over the life of the contract in a way that reflects an appropriate profit recognition pattern for the contract. In other words, the residual margin component in the liability represents unearned profit.
9. If the residual margin represents unearned profit, then the subsequent measurement of the residual margin should reflect changes in the amount of profit the insurer expects to earn over the life of the contract. In other words, the residual margin should, as much as possible, be adjusted to reflect changes in the amount of profit the contract is expected to produce (other than the profit that the insurer requires for bearing risk). This leads to the conclusion that the residual margin should be adjusted to reflect changes in estimate because the result reflects the residual margin that would have been determined had the revised estimates been known at inception.

Locked in residual margin

10. The ED proposed that the residual margin should be locked in at inception and allocated over the life of the contract.
11. In the staff's view, a locked-in residual margin could represent either:

    (a) An amount that exists only to eliminate any gain at the inception of a contract. Because that amount would have no independent meaning, it would not be not possible to determine the basis for its remeasurement and there is no non-arbitrary basis on which to allocate it. However, in the response to the ED, many challenged this reasoning for locking in the residual margin rate at inception. In the light of the comment letters and the Board's previous tentative decision, we do not consider this view further.

(b) An obligation to perform some action necessary to fulfil the contract. We discuss this view below.

12. The Board has tentatively decided that the residual margin should be calibrated at inception to an amount that precludes the recognition of a net gain at initial recognition of an insurance contract. Regarding the residual margin as representing some type of obligation for the insurer is consistent with the view that the reason that no day 1 gain is recognised is because the insurer has not yet performed under the contract at day 1 and therefore cannot have 'earned' the gain. In other words, the residual margin represents an obligation for the insurer to perform an action or actions necessary to fulfil the contract. This view is supported by the Board's June 2011 tentative decision that the residual margin should be allocated over the coverage period on a systematic basis that is consistent with the pattern of transfer of service provided under the contract.
13. If the Board believes that the residual margin represents an obligation for the insurer, the question of whether the residual margin should be unlocked depends on the nature and measurement basis of that obligation.
14. Therefore we discuss first what the obligation might be, and then possible measurement bases for the obligation.

Nature of the obligation

15. The reason the Board prohibited the recognition of a gain at inception of the contract is primarily because the insurer has not satisfied any of its performance obligations arising from the contract at inception.
16. However, many of the performance obligations arising from the insurance contract are *not* included in the residual margin. The obligation to make payments to policyholders for benefits and/or claims is completely captured in the risk-adjusted expected present value of the cash flows expected to fulfil the contract. However, the insurer also has other obligations from the insurance contract, and it

is the performance of these other obligations that results in the insurer earning he residual margin.

17. As discussed in agenda paper 6, it is not possible to define the nature of these obligations and this means that the residual margin is a mixture of things. However, some of the activities the insurer has to do to 'earn' the gain not included in the risk-adjusted expected value of the present value of cash flows include:

    (a) Insurance services other than paying claims and benefits, in particular absorbing the policyholders' risk through pooling of those risks in a portfolio. This is a service delivered over the coverage period.

    (b) Ancillary services that are related to the type of coverage provided and that do not meet the criteria for unbundling. For example, negotiating prices with suppliers or other third parties, providing advice, administrative support. These services may be delivered in the coverage or settlement period, depending on the circumstances.

18. In contrast to the single margin approach, in which the single margin is regarded as remaining profit-at-risk for the contract, the inclusion of an explicit risk adjustment in the measurement of the liability means that the residual margin is associated only with non-risk-bearing activities required to fulfil the insurance contract (assuming no measurement error).

19. Thus, in this view, the insurance contract liability that is calibrated to the premium at inception has two components:

    (a) the obligation to make net cash payments for insured events and other costs of fulfilling the contract.

    (b) the obligation to perform any other activities needed to fulfil the contract, eg by being the vehicle through which risk is pooled, or by providing ancillary services such as negotiating the amount of the claim with a third party. We refer to these obligations as the residual obligation in the rest of this paper. In this view, the residual obligation does not represent expected profitability, and hence the argument in paragraph 6(a) does not apply.

Measurement basis

20. In the staff's view, different considerations apply to the two component obligations of the insurance contract liability and therefore different measurement bases are appropriate:

    (a) the obligation to make net cash payments for insured events and other costs of fulfilling the contract is similar to other obligations to make cash payments. This component is measured using the risk-adjusted, expected present value of cash flows and remeasured each period, in a way broadly similar to the measurement basis used for financial instruments measured at fair value, or to the measurement basis used for a liability within the scope of IAS 37 *Provisions, Contingent Assets and Contingent Liabilities*. To the extent this obligation can be highly variable, remeasurement provides useful information to users of financial statements.[1]

    (b) the residual obligation is difficult to quantify directly, especially because it is difficult to identify all the activities the insurer needs to perform to fulfil the contract. The components of this obligation would not meet the criteria for recognition as a distinct performance obligation in the revenue recognition ED (otherwise they could be unbundled). However, the closest analogy would be to such performance obligations because the insurer must earn the gain through contract performance before recognising it. As with performance obligations, and because there is no other way to measure the residual obligation, it is measured by reference to the transaction price at initial recognition (ie at cost). After initial recognition, it is even more difficult to quantify the residual obligation because there is no new transaction price, and so we propose that this obligation should be measured on an allocated cost basis. Thus, locking in the residual margin and allocating it over the contract life is equivalent to measuring the residual obligation at cost and amortising that cost over

[1] In the October 2011 meeting, the IASB and FASB discussed the eligibility criteria for the premium allocation approach and noted that the premium allocation approach could be used when there was no benefit to be provided by remeasuring the liability arising from the insurance contract.

the contract life. This would mean that as the insurer satisfies the residual obligation, it would recognise the residual margin in profit or loss. Performance obligations in revenue recognition are not remeasured, therefore the residual obligation would not be remeasured (or adjusted as an approximation for remeasurement).

21. Because the residual obligation is separate and distinct from the obligation to make policyholder payments, there is no reason for adjusting the residual obligation when changes in another obligation (to pay net expected cash out flows arising from the contract) occur. The residual obligation exists even when the expected cash outflows from the contract exceed the expected cash inflows and any change in the amount that the insurer expects to pay does not affect the obligations that make up the residual obligation.
22. As a consequence, we do not think that the effect described in paragraph 6(b) (ie that profit continues to be recognised in periods if that profitability has been reduced) is counterintuitive: the insurer must satisfy the residual obligation over the contract term and the amounts that will be recognised in future periods represent the part of the premium the insurer earns by satisfying that obligation.

Consequences

Unlocked margin

23. If the residual margin is unlocked for some or all changes in estimates or assumptions, those changes would adjust the residual margin instead of affecting profit or loss, so long as those changes do not exhaust the residual margin. Thus, unlocking the residual margin would mean that changes are:

    (a) initially absorbed in the residual margin until they exceed the amount of unallocated residual margin (which is based on the amount determined at inception), so that those changes do not affect the net assets of the insurer.

    (b) recognised in profit or loss to the extent that the changes exceed the amount of unallocated residual margin.

24. This is illustrated as follows (assuming that all changes adjust the residual margin and that the residual margin is never negative).
25. Consider the following fact pattern:

    Base case: At inception

26. A contract has expected cash inflows of CU125, received at the start of year 1 and expected cash outflows of CU110, which are paid out at the end of year 5. Suppose:
    - the risk adjustment is 5, and decreases proportionally to the passage of time. This means that the risk decreases by CU1 each year.
    - discount rate is 2%, so the effect of time value of money at inception is CU10 and decreases over time by CU2 per year.
    - The residual margin is allocated according to the passage of time. The residual margin is CU20 at inception and decreases by CU4 each year, because the coverage period is 5 years.
27. The effect on the statement of financial position and profit or loss is as follows:

Extract from the statement of financial position

	Inception	Year 1	Year 2	Year 3	Year 4	Year 5
Expected cash inflows	*-125*					
Expected cash outflows	*110*	110	110	110	110	110
Effect of discounting	*-10*	-8	-6	-4	-2	0
Risk adjustment	*5*	4	3	2	1	0
	-20	106	107	108	109	110
Residual margin	*20*	16	12	8	4	0
Total liability	*0*	122	119	116	113	110

Extract from the statement of comprehensive income						Total
Income - residual margin	4	4	4	4	4	20
Income – release from risk	1	1	1	1	1	5
Interest expense	-2	-2	-2	-2	-2	-10
Changes in estimates	0	0	0	0	0	0
Profit or loss	3	3	3	3	3	15

Change in estimates, all adjust residual margin

28. Suppose that:

- In year 2 the expected cash outflows increase to CU118.
- In year 3 the expected cash outflows decrease to CU115.
- In year 4 the expected cash outflows increase CU117, and this is the actual payout in year 5.
- The remaining residual margin is allocated on a straight line basis over the remaining coverage period.

29. The revised effect on the statement of financial position and profit or loss is as follows:

Extract from the statement of financial position

	Inception	Year 1	Year 2	Year 3	Year 4	Year 5
Expected cash inflows	-125					
Expected cash outflows	110	110	118	115	117	0
Effect of discounting	-10	-8	-6	-4	-2	0
Risk adjustment	5	4	3	2	1	0
	-20	106	115	113	116	0
Residual margin	0	16	6	6	2	0
Total liability	-20	122	121	119	118	0

Extract from the statement of comprehensive income						*Total*
Income - residual margin	4	2	3	2	2	*13*
Income - release from risk	1	1	1	1	1	*5*
Interest expense	-2	-2	-2	-2	-2	*-10*
Experience adjustments	0	0	0	0	0	*0*
Profit or loss	3	1	2	1	1	*8*

30. This example shows that the change in estimates in profit or loss is offset by an adjustment to the residual margin in the period of the change. The overall effect is seen in profit or loss for each of the subsequent periods. This effect arises because when the residual margin is unlocked, the effect of changes in estimate of future cash flows are absorbed in the residual margin, to the extent that the residual margin exists. Those changes are therefore reflected in profit or loss through allocation of the residual margin to periods subsequent to the period in which they occur.

Change in estimates: part experience adjustment, part change in estimate

31. Suppose that rather than all the changes in estimates adjusting the residual margin, only changes in estimate would do so and not experience adjustments:
    - In year 2 the estimate of expected cash outflows increases to CU118, of which CU4 is an experience adjustment and CU4 is the effect of the change in estimates.
    - In year 3 the expected cash outflows fall to CU115, all change in estimate for future periods
    - In year 4 the expected cash outflows rise to CU117 due to an experience adjustment, and this is the actual payout in year 5.
32. The revised effect on the statement of financial position and profit or loss is as follows:

Extract from the statement of financial position

	Inception	Year 1	Year 2	Year 3	Year 4	Year 5
Expected cash inflows	-125					
Expected cash outflows	110	110	118	115	117	0
Effect of discounting	-10	-8	-6	-4	-2	0
Risk adjustment	5	4	3	2	1	0
	-20	106	115	113	116	0
Residual margin	0	16	9	8	4	0
Total liability	-20	122	124	121	120	0

Extract from the statement of comprehensive income

						Total
Income - residual margin	4	3	4	4	4	*19*
Income - release from risk	1	1	1	1	1	*5*
Interest expense	-2	-2	-2	-2	-2	*-10*
Experience adjustments	0	-4	0	-2	0	*-6*
Profit or loss	3	-2	3	1	3	*8*

33. The amount recognised as an experience adjustment reduces profit or loss. Thus, compared to the example where all changes in estimate unlock the residual margin, the changes in estimate have a greater impact on profit or loss.

Locked in margin

34. When the residual margin is locked in, changes in the estimates used to determine the insurance contract liability would be reflected in profit or loss, and hence in net assets, in the period in which they occur.

35. This is illustrated as follows:

    Same fact pattern as before. When there is a change in estimate (as before) the revised effect on profit or loss is as follows:

Extract from the statement of financial position

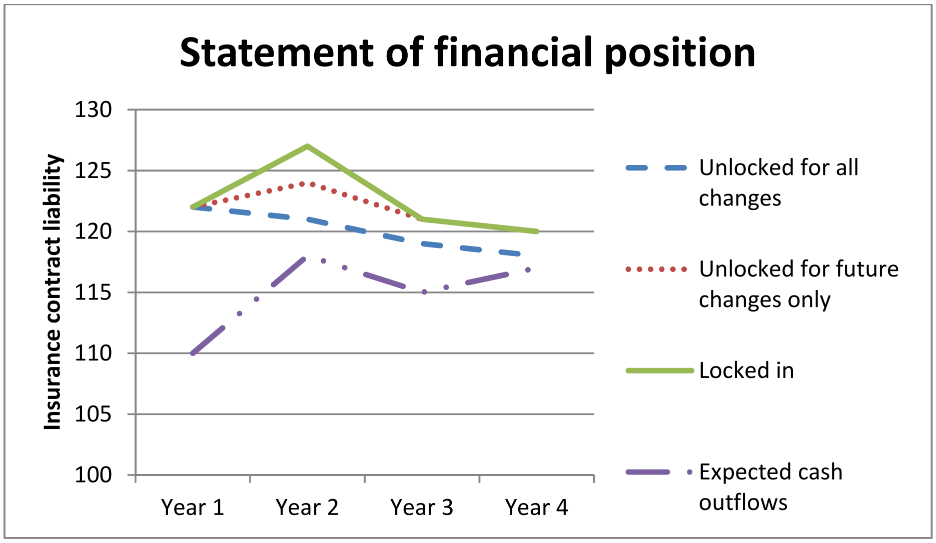
	Inception	Year 1	Year 2	Year 3	Year 4	Year 5
Expected cash inflows	-125					
Expected cash outflows	110	110	118	115	117	0
Effect of discounting	-10	-8	-6	-4	-2	0
Risk adjustment	5	4	3	2	1	0
	-20	106	115	113	116	0
Residual margin	20	16	12	8	4	0
Total liability	0	122	127	121	120	0

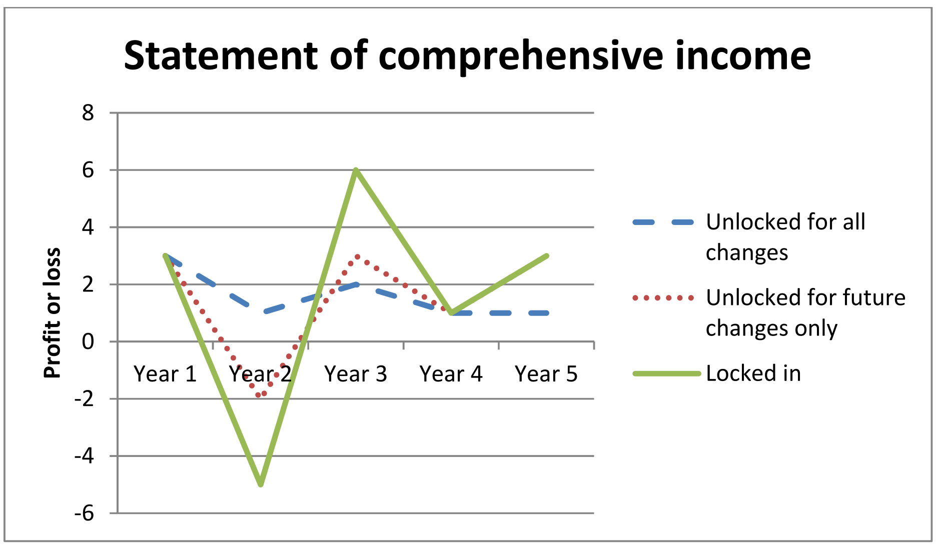
Extract from the statement of comprehensive income						*Total*
Income - residual margin	4	4	4	4	4	*20*
Income - release from risk	1	1	1	1	1	1
Interest expense	-2	-2	-2	-2	-2	*-10*
Experience adjustments	0	-8	3	-2	0	*-7*
Profit or loss	3	-5	6	1	3	*8*

36. This shows the change in estimate affecting profit or loss in the period in which it occurs. Some believe that information about changes in estimates in the period in which it occurs is relevant to users.

Summary

37. The following charts summarise the examples in paragraphs 24-36.





Other considerations

Complexity

38. Some argue that unlocking adds an additional layer of complexity and needs tracking and computing, without providing improved information. However, the experience on the Margin on Services in Australia demonstrates that unlocking can be made operational and the Board accepted that conclusion at the previous discussion (see agenda paper 3D/70D for the June meeting). We therefore disregarded this consideration in our analysis.

Matching with indirect costs

39. The residual margin implicitly covers anticipated indirect costs. Some are also concerned that the pattern of recognition of the residual margin in profit or loss will not match the pattern in which those indirect costs would occur:

    (a) if the residual margin is allocated on the basis of the passage of time and locked in, it implies that the part of the margin covering those indirect costs would be recognised in profit or loss evenly over time (whereas in practice the costs could occur and be expensed on a different pattern.) For example, an insurer may have indirect fixed costs of 10 each period, and these may be offset by the release of the residual margin of 10 each period.

    (b) unlocking the margin might result in a pattern of recognition of the residual margin in profit or loss that does not reflect when those indirect costs occur and may consume amounts needed to cover those indirect costs in a future period. For example, if the residual margin was adjusted so that the release of the margin is only 2 in future periods, the residual margin would be insufficient to cover those indirect costs in the future period.

40. The staff thinks that recognising the part of the premium that relates to such indirect costs on an allocation basis is a reasonable practical accommodation, but given these costs are unspecified and unidentifiable, we do not think that their

allocation pattern should be the primary driver in deciding whether to unlock the residual margin.

Consistency with the approach in revenue recognition or with the premium allocation approach

41. Some observe that an unlocked residual margin would make the building block approach more similar to the approach in revenue recognition and with the premium allocation approach. (In the staff's view the latter two approaches are similar.) The staff agrees. Although the risk adjusted expected present value of the cash flows is remeasured in each period, unlocking the residual margin means that changes in future estimates affect the overall amount of the recognised liability only when those changes exhaust the residual margin. As a result, the effect is similar to a locked in premium that is allocated over the contract term, subject to an onerous contract test.
42. In their discussions on the eligibility for the premium allocation approach, the Board discussed features that might make it appropriate to apply a current measurement approach (ie the building block approach), rather than allocation approach (such as the premium allocation or unearned premium approach). One such feature is when the current measurement approach would provide more useful information because the liability is highly variable. For a locked in residual margin, changes in the liability would result in a different measure for the overall liability arising from the insurance contract compared to the overall liability had those changes not taken place. For an unlocked margin, changes in the liability would be reflected in changes in the components of that overall liability and would be disclosed in the notes. If the building block approach resulted in the same effects as the premium allocation approach because the residual margin is unlocked, it is questionable whether the cost of remeasurement would exceed the benefit provided by this note disclosure.

Conclusions

43. We acknowledge that, because the residual margin is not directly measured, both an unlocked and a locked in residual margin are arbitrary in some respects. Neither approach is ideal, and both have pros and cons. Thus, the question of whether to unlock the residual margin is essentially the question of what provides the most faithful representation of changes in estimates about future circumstances.
44. We summarise below the views supporting each approach.

Views supporting unlocked margin

45. We summarise the views supporting an unlocked margin as follows:

   (a) *Reason for residual margin and liability represented.* The residual margin is a measure of expected future profitability in the contract. That measure is an integral part of the overall liability arising from an insurance contract.

   (b) *Usefulness and information content.* The residual margin is a measure of expected future profitability and when changes in estimate change the amount of expected profitability, those changes should adjust the amount of unearned profit. If those amounts were instead recognised in the year they arise, the transparency that would be provided by recognising changes in estimates in the period in which they occur would be obscured by the lack of transparency that arises by having a 'distorted' residual margin in subsequent periods.

   (c) *Feedback from users.* Users of financial statements tend to place weight on recurring items and thus would assign more importance to the estimates that affect profit in future periods than they would to a one-off change in estimates in the period in which those changes in estimate occur. Unlocking the residual margin thus makes the changes in estimate more transparent because they would have a recurring effect on future periods.

46. Furthermore, those who support unlocking would disagree with the characterisation of the residual margin as a residual obligation because they do not accept the view that the profit margin on an insurance contract is a proxy for the measurement of the residual obligation at inception. They argue that the measurement of any obligation arising from the contract needs to consider both the recovery of the cost required to satisfy the obligation (which would be included in the expected cash flows) and the margin attached to those costs.

Views supporting locked in margin

47. We summarise the views supporting a locked in margin as follows:

    (a) *Reason for residual margin.* The residual margin arises because the insurer cannot recognise income before it satisfies any obligations under an insurance contract. The risk-adjusted expected present value of cash flows identifies all the obligations to make payments to fulfil the contract. The remaining obligations are not related to those payments and the measurement of those obligations should therefore not be affected by changes in the obligation to make payments.

    (b) *Usefulness and information content*. Supporters of locking the residual margin believe that discovery of changes in estimates today represent economic changes today in the cost of fulfilling a contract. An increase or decrease in an estimate of a cash flow in 20 years' time is an increase or decrease in a liability, regardless of the fact that the insurer will have 20 years to fund that liability and regardless of the reasons for that change in estimate. It is easier to understand changes in estimate when they impact profit or loss than when they are treated as transfers between the components of the balance sheet liability. Therefore they think that recognising the effect of those changes in the period in which they occur would provide more transparent, useful and relevant information about the insurer's circumstances, compared to recognising those changes in profit or loss over future periods, through the subsequent allocation of the residual margin.

(c) *Feedback from users*. Users consistently tell us that they see the assessment of non-financial estimates as part of an insurer's core activity and the ability of the insurer to predict those as a key driver of performance. Thus they believe that changes in non-financial estimates at least should be shown in profit or loss. However, as discussed in agenda paper 6A *Which changes adjust the residual margin?*, we do not believe that there is a conceptual basis to distinguish between changes in estimate that arise for different reasons.

48. Furthermore,

(a) In the June 2011 papers we placed weight on the argument that unlocking the residual margin would permit a more meaningful interpretation of the residual margin because it presents the current assessment of the expected profitability of the contract. However, those who support a locked in residual margin note that the June decision was made against the interpretation of the residual margin as a plug. This paper has developed different interpretations of the residual margin which we believe to be equally meaningful. Supporters of locking in the residual margin believe that a view of the residual margin as a residual obligation provides more transparent information and results in better consistency with the conceptual framework because it does not result in the recognition of unearned income that does not meet the definition of a liability. The *Framework* defines a liability as a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits. Unearned profit relates to future events and will not result in an outflow from the entity of resources embodying economic benefits. Accordingly, unearned profit does not meet the definition of a liability and should not be recognised as such.

(b) Although there would be information value arising from disclosure of the unearned profit in the contract, unlocking would mask the current liability value in a way analogous to the corridor approach for the defined benefit pension liability because it delays the recognition of gains and losses to periods after the period in which those gains and losses arise.

Question for discussion: Whether to unlock the residual margin
Do you think that an insurer should: (a) adjust the residual margin after inception to counteract the effect of changes in estimates of the risk adjusted, expected present value of future cash flows, or (b) determine the residual margin at inception and allocate it in a rational way (to be determined)?