



Project	Insurance Contracts
Topic	Risk adjustment: the story so far

Purpose of this paper

1. This paper provides an overview and background material on the risk adjustment. It covers the following:
 - (a) Summary of the proposals in the IASB's exposure draft *Insurance Contracts* (the ED).
 - (b) A summary of comment letters on the ED
 - (c) A refresher of the boards' discussions on risk and uncertainty
 - (d) The need for a risk adjustment
2. We do not ask for decisions in this paper.

Summary of the IASB's proposals and the FASB's preliminary views

3. The ED and the FASB's Discussion Paper, *Preliminary Views on Insurance Contracts* (the DP) differed in their conclusions about whether the measurement model should include an explicit risk adjustment.
4. The ED proposes that the measurement of an insurance contract liability should include an explicit adjustment to reflect the risk inherent in the insurance contract. Paragraph BC109 of the Basis for Conclusions of the ED provides the IASB's reasoning for including a risk adjustment in the measurement of insurance liabilities as follows:

In the Board's view, the resulting measurement would:

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- (a) convey useful information to users about the amount of risk associated with the insurer's insurance contracts because the management of risk is integral to the insurance business model.
 - (b) reflect the insurer's view of the economic burden imposed on it by the presence of that risk.
 - (c) be broadly consistent with existing requirements in IAS 37, and with the refinements of, and extensions to, those requirements proposed in the exposure draft *Measurement of Liabilities* in IAS 37.
 - (d) reduce the amount of the residual margin for which a release pattern is somewhat arbitrary.
- 5. We also note that including a risk adjustment in the measurement of an insurance contract liability is consistent with the measurement of fair value, except that the perspective for the measurement of an insurance contract is that of the insurer, while the perspective for fair value measurement is that of a market participant. However, because insurance contracts are not generally transferred in secondary markets, we believe that there would not be significant differences between those perspectives.
- 6. The FASB took a different approach in their preliminary views. Instead of including an explicit measure of risk in the measurement of the insurance liability, the FASB preferred to depict risk within a single composite margin. The FASB's preliminary view is that the pricing of the insurance contract reflects the risk and uncertainty about the net cash flows. Therefore, any uncertainty would be implicitly included in a single composite margin that also implicitly includes any potential profit.
- 7. The FASB board members that supported a single composite margin were concerned about the level of judgment required to determine the explicit risk adjustment and the loss of comparability that this might cause.
- 8. Therefore the FASB concluded that the single composite margin provided benefits that an explicit risk adjustment could not. Those benefits were expressed in paragraph 71 of the DP, as follows:
 - a. **The approach would be more consistent with the allocated transaction price approach in the proposed Accounting Standards Update on revenue recognition, because both a composite margin and a residual margin are allocations of the customer**

consideration, whereas a risk adjustment margin would be subsequently remeasured.

b. A composite margin would eliminate the need to use subjective methods for measuring the risk adjustment margin that may decrease comparability. Furthermore, changes in those subjective measurements from period to period would be recognized immediately in earnings.

c. A composite margin would provide a simpler and more understandable approach to account for the difference between the expected cash inflows and outflows. The method for subsequent recognition of the composite margin in earnings would be simpler to calculate and more transparent to users of financial statements than the IASB's proposed techniques for subsequent recognition of changes in the risk adjustment margin.

9. In response to these criticisms:

- (a) We noted in the February 2011 meeting¹, that the revenue recognition and insurance contracts projects have different models. Neither the residual margin in a risk adjustment approach nor a composite margin approach is consistent with the revenue recognition model in its entirety. Only part of the premium (or customer consideration) is allocated over the life of the contract. The remainder is assigned to the measurement of the liability.
- (b) We discuss the concerns about subjectivity in the context of comparability and verifiability throughout the papers for this meeting. However, we also note that the approach proposed in agenda paper 3F/68F *Composite margin: profit realization*, by introducing the modification that an insurer shall realize profit from the composite margin as it is released from its exposure to risk, would require subjective estimates about release from exposure to risk, in a similar manner to the risk adjustment approach.
- (c) We discuss understandability as it applies to risk adjustment in agenda paper 3B/68B *Risk adjustment: useful financial information*. We also note that the modification proposed to the composite margin in agenda paper 3F/38F *Composite margin – profit realisation* would make the composite margin approach more complex than the proposals in the DP.

¹ agenda paper 3G/58G *Explicit risk adjustment*

We discuss the effects of the modification proposed to the composite margin approach in agenda paper 3H/68H *Risk adjustment or composite margin?*.

Overview of comments on the Exposure Draft

10. This section summarises the response to the ED. A summary of the feedback on the DP, mainly from US respondents, is in agenda paper 3E/68E *Composite margin - overview*.
11. Commentators had differing views on whether risk in an insurance contract should be represented explicitly, via a risk adjustment, or implicitly, in a composite margin. Respondents to the ED generally agreed with an explicit risk adjustment (some with specific caveats), in particular those that come from countries that will adopt Solvency II for regulatory capital purposes. (Solvency II requires an explicit risk adjustment using the cost of capital approach and would allow the residual margin to be included as part of capital.)
12. Other respondents that are in favour of an explicit risk adjustment are in countries where an explicit risk adjustment is currently required to be calculated and recorded in accordance with specific guidance (eg Australia and Canada). Those that responded to the DP (primarily US respondents) generally did not agree that the adjustment for risk should be explicit.
13. This means that the level of support for including an explicit risk adjustment in the measurement of an insurance contract liability varies along geographical lines:
 - (a) In Europe, respondents were largely in favour of an explicit risk adjustment; general arguments for support were that they believe an explicit risk adjustment promotes transparency about the profitability of the contract over time; that risk margins are already calculated for internal management purposes and that they would produce relevant and comparable information especially as its practice will spread and market discipline will drive consistency in its application.
 - (b) In Asia, different views are represented. In Japan, respondents were split between supporters (on the grounds of the conceptual soundness of a risk adjustment approach) and respondents that had not formed a view yet on whether a two-vs-one margin approach should be preferred. The Chinese

standard setter and the insurance regulator favoured the inclusion of a risk adjustment, while the local actuarial association and the association of life insurers preferred a composite margin because they thought that it is counterintuitive that at initial recognition a risk adjustment might result in showing onerous contracts and also because they were concerned by the judgement involved in making risk adjustment estimates. In the Republic of Korea, there was general disagreement for the inclusion of the risk adjustment for similar reasons as those presented for the Chinese opponents. Finally, in India the local actuarial association supported an explicit risk adjustment while the insurance regulator favoured a composite margin.

- (c) In Oceania and especially in Australia, respondents were widely in favour of a risk adjustment approach which they thought would provide more relevant and therefore useful information than a composite margin approach.
 - (d) In North America we record two different positions. In Canada, respondents were largely in support of a two-margin approach. In contrast, in the US, respondents to the ED, with sporadic exceptions, were generally against the measurement of an explicit risk adjustment. In these commentators' view, a risk adjustment would be an arbitrary measure that provides a false impression of precision and that is difficult to compare. Also, these respondents thought that there should be consistency with the approach taken by the boards in the Revenue Recognition project, which does not include a risk adjustment in determining whether there is an onerous contract.
 - (e) In Africa (mainly South Africa) and South America respondents were largely in favour of a risk adjustment approach which, they believed, would provide more relevant information.
14. Finally, there were also trends in the respondent type, as follows:
- (a) Users in general favoured a risk adjustment approach. One rating agency stated that '[a risk adjustment] allows us to better understand the risks as seen by management. We would then apply our analytical judgment about the risks affecting an insurer's financial strength.'
 - (b) the actuarial profession and the major accounting firms were generally in agreement with a two-margin approach, although these respondents

acknowledge that the risk adjustment poses questions of comparability and complexity that need to be considered by the boards.

- (c) The regulators were divided and the International Association of Insurance Supervisors reports split views on whether a two-margin approach should be preferred or a composite margin approach that some suggest could be defined as a risk margin calibrated to the premium at inception.

Arguments in favour of an explicit risk adjustment

- 15. Some respondents to the ED argued that managing the variability in the amount and timing of cash flows – ie insurance risk – is the essence of the insurance business. Most commentators agreed that a measure of risk – or a risk adjustment – would be necessary because the expected value of the future cash flows does not measure the variability of the cash flows, ie how wide the range of possible scenarios is. Therefore they believe that explicit information about the insurance risk inherent in those liabilities is relevant to an economic valuation of insurance liabilities.
- 16. Some respondents also expressed a view that the identification of a separate risk adjustment would provide a better representation of an insurer’s performance because it would provide information to users about:
 - (a) an insurer’s perception of the riskiness characterising the contracts it issues;
 - (b) the compensation the insurer requires for bearing the risk;
 - (c) circumstances in which the premiums do not fully compensate the insurer for bearing that risk; and
 - (d) the remaining profitability which is embedded in the residual margin under the ED.
- 17. Some observed that an explicit risk adjustment would *clean up* the residual margin from the measurement of the insurance risk, thus reducing the extent to which it can be regarded as a *plug*.
- 18. These arguments were also presented by some respondents to the DP.

Arguments against an explicit risk adjustment

19. The concerns about an explicit risk adjustment described by commentators include the following:
- (a) An explicit risk adjustment is inherently subjective because it is not observable and judgement would be required for its calculation. Out of the context of a regulatory framework, some view the calculation of the risk adjustment as inherently arbitrary. These factors may impair comparability and make it difficult to determine whether the assumptions made were reasonable and the objective of its measurement were met.
 - (b) The explicit risk adjustment may not be understandable due to the complexity of its calculation. Some argue that if one insurer recognised a larger risk adjustment than other insurers, it might be unclear whether that insurer had been conservative in making assumptions or genuinely had a different risk profile from the others. Some also argue that it give users a misleading impression about the precision of liability measurement.
 - (c) A risk adjustment adds a bias to the measurement of insurance liabilities because it adds an extra layer of prudence to the measurement.
 - (d) A risk adjustment would be inconsistent with the approach adopted in the boards' project on revenue recognition because it remeasures, rather than allocates, a portion of the customer consideration.

Refresher of the boards' discussions on risk and uncertainty

20. Since the end of the exposure period, the boards have tentatively agreed:
- (a) if there are techniques that could faithfully represent the risk inherent in insurance liabilities, the inclusion of an explicit risk adjustment in the measurement of those liabilities would provide relevant information to users. (February meeting, agenda paper 3G/58G).
 - (b) to remove references in the objective of the risk adjustment proposed in paragraph 35 of the ED to 'the amount the insurer would rationally pay to be relieved of the risk' and to a 'maximum amount'. As a result, the objective of the risk adjustment would be as follows: 'the risk adjustment shall be the

compensation the insurer requires to bear the risk that the ultimate cash flows could exceed those expected' (week of 22 March, agenda paper 12D/61D).

- (c) to provide application guidance that this amount would reflect both favourable and unfavourable changes in the amount and timing of fulfilment cash flows (week of 22 March, agenda paper 12D/61D).
21. In addition, in the week of 22 March, the boards directed the staff to consider how to capture in the application guidance the notion that the risk adjustment reflects the point at which insurer is indifferent between holding the insurance liability and a similar liability that is not subject to uncertainty.
22. The boards also held education sessions as follows:
- (a) At the joint Board meeting on 1-2 March, the staff provided a paper Informational session on uncertainty in the measurement of insurance liabilities (agenda paper 2I). In that paper the staff concluded that “the risk that actual outcomes differ from expected outcomes are not captured in the expected cash flows or the discount rate thereby eliminating the possibility of double counting. The real question for the risk adjustment is whether the amount should be measured explicitly or implicitly as part of the composite margin. This will be discussed at a future meeting.”
 - (b) At their meeting in the weeks of 14 and 22 March, the boards held education sessions on the practical application of a risk adjustment in jurisdictions where these are already calculated for financial reporting or where the risk adjustment is used for economic value reporting purposes (agenda papers 3B/60B, 12A/61A and 12B/61B).
23. We summarise the feedback received from the invited speakers at those sessions as follows:
- (a) Meaning (or, why require a risk adjustment?):
 - (i) The model proposed in the ED accounts for the passage of time by means of calculating the time value of money. An insurer provides coverage against uncertainty and uncertainty continues after coverage ceases in the estimation of outstanding claims liabilities. That coverage and uncertainty also has a value, and similarly to time value of money, it should be accounted for.

- (ii) A risk adjustment represents a retention of resources to account for the cost of production of the insurance liability. The insurer earns profit by assuming risk and the risk adjustment represents the cost to the insurer of the risk assumed. As time passes and the source of uncertainty is eliminated, risk decreases and turns up in profit to the extent experience under the contract unwinds as expected.
 - (iii) a risk adjustment provides a measure of the value of risks which the market does not provide for (so called non-hedgeable risks).
- (b) Practical relevance for users of financial statements (or, do investors find a risk adjustment useful?):
 - (i) Experience has shown that investors would consider the risk adjustment when making their economic decisions, even in jurisdictions where local GAAP do not require risk adjustments to be determined as part of the valuation of insurance liabilities.
 - (ii) The risk adjustment is a factor in determining the transaction price in the transfer of a block of insurance business, although when transacting an insurance business supply-demand considerations would also play a key role as in any other transaction. Investors are interested in the riskiness embedded in the transferred business.
- (c) Do-ability (or, are there any major hurdles into measuring a risk adjustment?):
 - (i) A risk adjustment calculated for regulatory purposes may or may not equal the adjustment for financial reporting purposes. For example, in Australia the confidence level used for financial reporting is usually higher than the confidence level required for regulatory purposes.
 - (ii) Practice (mainly within regulatory frameworks) has been developed in determining risk adjustments. For example, techniques have been developed that account for correlations between classes of business: they can be assessed and afterwards diversification benefits can be apportioned to each class of business.
 - (iii) The techniques proposed in the ED all satisfy those characteristics in paragraph B72 of the ED which are commonly

regarded as being desirable features of a risk measure. One of those, which the cost of capital approach satisfies, is that the longer the duration of liabilities, the higher the risk margin. This is also generally true for the other risk measurement methods set out in the ED.

- (iv) Smaller entities would be able to implement risk adjustments, however they might require help from external consultants.
- (d) Comparability (or, is it possible to compare the numbers coming out of different risk measures?):
- (i) There is no universally correct answer when determining risk adjustments based on entity-specific inputs. Therefore, comparability should be considered under this light.
 - (ii) From a technical perspective, a key condition for comparability of risk measures is having the same time horizon and the same confidence level. Therefore, for comparability purposes, disclosure of these aspects is a key aspect.
 - (iii) The three methods proposed in the ED are reconcilable to each other. The ED proposal of adding comparability by means of translating risk measures such as Tail Value at Risk (T-VaR) or Cost of Capital (CoC) in terms of a confidence interval is doable and not excessively burdensome.

The need for a risk adjustment

24. This section considers the following questions that commonly arise in the discussion about whether a risk adjustment for insurance liabilities is needed:
- (a) Why include a risk measure on top of the present value of probability-weighted estimates of cash flows?
 - (b) Is a risk adjustment needed under a fulfilment notion?
 - (c) What is the objective of a risk adjustment?

(a) Why include a risk measure on top of the expected present value of cash flows?

25. A simple example illustrates why the exercise required to determine expected value in the first building block does not reflect the risk in the expected cash flows. Consider two contracts:

(a) Contract A

(i) Claim payment – CU1,000,000 with a probability of 0.5

(ii) Claim payment – CU0 with a probability of 0.5

(b) Contract B

(i) Claim payment – CU 500,000 with a probability of 1

26. As **Table 1** shows, these two contracts have the same expected value:

Table 1

	Probability	Pay-off (CU)
A	0.5	1,000,000
	0.5	0
Probability-weighted average	$(0.5 \times 1,000,000) + (0.5 \times 1,000,000) = \text{CU}500,000$	
	Probability	Pay-off (CU)
B	1	500,000
Probability-weighted average	$(1 \times 500,000) = \text{CU}500,000$	

27. Contract A has more risk than Contract B because there is more uncertainty in the range of outcomes. If an insurer is indifferent to risk, the insurer would value the cash outflows for Contract A and Contract B at the same amount. However, because a risk adverse insurer would place more weight on the unfavourable scenarios than on the favourable ones, a risk adverse insurer places a higher value on its liability under Contract B than on its liability under Contract A. In other words, it views contract A as more onerous than contract B.

28. The rationale presented above is consistent with Statement of Financial Accounting Concepts No. 7 *Using Cash Flow Information and Present Value in Accounting Measurements* (CON7) which states:

20 The objective of using present value in an accounting measurement is to capture, to the extent possible, the economic difference between sets of future cash flows. [...]

21 [...] present value helps to distinguish between unlike items that might otherwise appear similar. A present value measurement that incorporates the uncertainty in estimated future cash flows always provides more relevant information than a measurement based on the undiscounted amounts or a discounted measurement that ignores uncertainty.

63 Present value measurements, like many other accounting measurements, occur under conditions of uncertainty. In this Statement, the term uncertainty refers to the fact that the cash flows used in a present value measurement are estimates, rather than known amounts. (Even contractual amounts, like the payments on a loan, are uncertain because some borrowers default.) That uncertainty has accounting implications because it has economic consequences.

Although CON7 was written in the context of a fair value measurement objective, the staff believe that the principle applies equally to the determination of the expected present value of cash flows under a fulfilment notion.

(b) Is a risk adjustment needed under a fulfilment notion?

29. The boards agreed that the measurement of insurance liability should consider the view of an insurer as it fulfils the contract. If the insurer was indifferent to risk, there would be no need for a risk adjustment. However, most individuals and entities are risk averse: ie they place more weight on the ‘bad’ outcomes than on the ‘good’ outcomes. Therefore, in quantifying the amount of risk it is necessary to consider the risk averseness of the insurer. Thus, any quantification of risk in a fulfilment notion needs to reflect:

- (a) the probability distribution of possible outcomes; and

- (b) the degree of risk aversion of the insurer.
30. The risk adjustment tries to quantify this factors by considering the additional amount that a risk adverse insurer would require to persuade it to undertake to fulfil a liability with uncertain cash flows, as opposed to a liability that generates cash flows with the same expected present value but which are not subject to uncertainty.
 31. We believe that assigning a value to reflect this additional amount is relevant under a fulfilment notion because the measurement of the liability reflects the point at which an insurer is indifferent between fulfilling the liability and paying to be relieved of the liability, rather than necessarily the current exit price. Similarly, it could represent the point at which an insurer is indifferent whether to undertake an obligation identical to its existing obligation under the existing liability.

(c) *What is the objective of a risk adjustment?*

32. To make operational the determination of a risk adjustment, we need to specify an objective that describes how to translate the risk in the insurance contract into a single monetary amount.
33. In March 2011, the boards concluded that the objective of the risk adjustment is to be “the compensation the insurer requires to bear the risk that the ultimate cash flows could exceed those expected”, and agreed to provide application guidance that this amount would reflect both favourable and unfavourable changes in the amount and timing of fulfilment cash flows. That objective incorporates the following considerations:
 - (a) The risk in an insurance contract is reflected in the compensation that an insurer requires to bear that risk
 - (b) That amount includes consideration of both the probability distribution of outcomes and the risk aversion of the insurer.