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Project	**Insurance contracts**
Topic	**Deposit floor for Insurance Contracts**

Purpose

1. In May 2009, the IASB decided tentatively that the measurement of insurance contracts should include the expected (ie probability-weighted) cash flows resulting from those contracts, including the expected value of those cash flows whose amount or timing depends on whether policyholders exercise options in existing contracts (policyholder behaviour).

2. In the staff's view, it follows from that tentative decision that no deposit floor applies in measuring insurance contracts. This paper asks the boards to confirm that conclusion.

Background

3. A measurement that includes future cash flows on an expected value basis considers a range of scenarios that reflects the full range of possible outcomes. Each scenario specifies the amount and timing of the cash flows for a particular outcome, and the estimated probability of that outcome. The cash flows from each scenario are discounted and weighted by the estimated probability of that outcome, to derive an expected present value.

4. At a previous meeting, some Board members asked the staff to clarify whether the measurement model for insurance contract would include a deposit floor.

5.   The deposit floor is a term often used to describe the requirement in paragraph 49 of IAS 39 *Financial Instruments: Recognition and Measurement*. This states:

>   The fair value of a financial liability with a demand feature (eg a demand deposit) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid.

Application of an expected cash value approach

6.   We approach this issue by considering first a simplified example. The example shows two cases in which the policyholder has no right to surrender the contract and demand a payment:

Background

Insurer A enters into an endowment contract with a duration of two years. The premium is CU120 for year 1, payable at inception, and CU130 for year 2, payable at the beginning of year 2. The policyholder has no option to surrender the contract. However, the policyholder can decide not to pay the premium for year 2. In that case no death coverage will be provided for year 2. If the policyholder pays both premiums, the benefit paid out at maturity is CU200. If the policyholder pays only the premium for year 1, the benefit paid out at maturity is CU100.

For mortality, the insurer considers the following pay-outs:

	Benefits	Probability	Expected
Year 1	CU500	1%	CU5
Year 2	CU500	2%	CU10

The insurer estimates the probability of the policyholder not paying the additional premiums at the end of year 1 at 10% and, accordingly, the probability that the policyholder continues to pay the premium at 90%.

For simplicity, the example ignores time value of money and margins.

In the following three cases we look at the measurement of the liability at the end of year 1.

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<tr><td colspan="5">

Case 1

The outcomes of the scenarios for year 2 are:
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<tr><td></td><td>Premiums</td><td>Benefits*</td><td>Probability</td><td>Outcome**</td></tr>
<tr><td>Lapse</td><td>-</td><td>98</td><td>10%</td><td>10</td></tr>
<tr><td>No Lapse</td><td>(130)</td><td>206</td><td>90%</td><td>68</td></tr>
<tr><td>Expected value</td><td></td><td></td><td></td><td>78</td></tr>
</table>

Note that the expected cash flows if there are no lapses are CU76 (CU206-CU130).

*The expected benefits in case of lapse of CU98 are determined as 98%*CU100. The expected benefits in case of no lapse of CU206 are determined as 2%*CU500 + 98%*CU200.

** Rounded to CU1

At the end of year 1, the liability is measured at CU78.

7. In case 1, at the end of year 1, the policyholder has two choices: lapse (with an expected value of CU98) or pay the additional premium (with an expected value of CU76, determined as the expected benefits of CU206 less the additional premium for year 2 of CU130). The Board's tentative decision in May requires the insurer to measure the liability at the expected value of the net cash outflows (CU78).

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Case 2

The fact pattern is the same as in case 1, but with the addition that during year 1 the policyholder becomes unhealthy. There is now a 10% probability that the policyholder will die in year 2. The new pay-out for mortality in year 2 is as follows, if the policyholder continues to pay the premium:

	Benefits	Chance	Expected
Year 2	CU500	10%	CU50

This results in the following outcomes:

	Premiums	Benefits*	Probability	Outcome
Lapse	-	90	10%	9
No Lapse	(130)	230	90%	90
Expected value				99

Note that the expected cash flows if there are no lapses are determined as CU100 (CU230-CU130).

*The expected benefits in case of lapse of CU90 are 90%*CU100. The expected benefits in case of no lapse of CU230 are 10%*CU500 + 90%*CU200.

At the end of year 1, the liability is measured at CU99.

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8. In case 2, at the end of year 1, the policyholder has two choices: lapse (with an expected value of CU90) or pay the additional premium (with an expected value of CU100, determined as the expected benefits of CU230 less the additional premium for year 2 of CU130). The Board's tentative decision in May requires the insurer to measure the liability at the expected value of the net cash outflows (CU99).

9. Note that in both cases 1 and 2, the liability is measured at the expected (present) value of the cash flows. Although the policyholder has two choices, the measurement does **not** require the insurer to select the policyholder option that results in the greater monetary amount.

10. We now consider a third case, in which the policyholder has an option to receive an immediate cash payment instead of paying a further premium.

Case 3

In this case, the fact pattern is the same as for case 1, with the addition that the policyholder has the option to surrender the contract at the end of year 1 and receive a payment then of CU100.

	Premiums	Benefits*	Probability	Outcome
Lapse	-	100	10%	10
No Lapse	(130)	206	90%	68
Expected value				78

Note that the expected cash flows if there are no lapses are CU76 (CU206-CU130).

*The expected benefits in case of lapse of CU100 are determined as 100%*CU100 (the surrender value). The expected benefits in case of no lapse of CU206 are determined as 2%*CU500 + 98%*CU200.

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11.   In case 3, at the end of year 1, the policyholder has two choices: surrender (with an expected value =surrender value of CU100) or pay the additional premium (with an expected value of CU76). The Board's tentative decision in May requires the insurer to measure the liability at the expected value of the net cash outflows (CU78).

12.   If a deposit floor were applied in case 3, the insurer would measure the liability at CU100 (higher of CU 100 and CU78).

13.   Applying deposit floor in case 3 would, in effect, require that whenever a contract gives the policyholder an option, the insurer must measure the liability assuming that the policyholder exercises that option in the way that is least favourable to the insurer. Such a requirement would, of course, contradict the requirement to consider future cash flows on a probability-weighted basis. Put differently, such a requirement would ignore all scenarios other than those involve the exercise of policyholder options in the way that is least favourable to the insurer.

Question for the boards

Do you confirm, applying tentative decisions the IASB has already made, that no deposit floor applies in measuring insurance contracts?