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**International  
Accounting Standards  
Board**

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These notes are based on the staff papers prepared for the IASB. Paragraph numbers correspond to paragraph numbers used in the IASB papers. However, because these notes are less detailed, some paragraph numbers are not used.*

### **INFORMATION FOR OBSERVERS**

**Board Meeting:** 16 October 2006, London

**Project:** Insurance Contracts Phase II

**Subject:** Cover note to examples (Agenda Paper 5E)  
Examples illustrating differences between the Board's tentative conclusions and industry proposals (Agenda paper 5F)  
[Separate observer notes cover agenda papers 5-5B, 5C and 5D]

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#### **AGENDA PAPER 5E Cover note to example**

##### **Purpose of this paper**

1. This cover note accompanies a simple example that illustrates the application of the elaborated principles set out by the CFO Forum, focusing on the treatment of changes in estimates. The example is very simple, and thus does not illustrate all the features of the models.

##### **Fact Pattern**

2. The example illustrates the application of the CFO Forum's elaborated principles to a portfolio of 5 year contracts with the following features:
- (a) Premium CU 1,000
  - (b) Expected claims CU 160 of claims per year (CU 800 in total).
  - (c) Pricing margin CU 200 at inception.

- (d) Exit value risk margin CU 180 at inception. It is assumed that other market participants require no service margin for this contract.
  - (e) Both margins run off evenly over the life of the contracts. For simplicity, discounting, acquisition costs and expenses are ignored.
3. In the base case, the expected value of the cash flows and the margin decrease evenly over time, as expected. As the margin is released, CU 40 of profit is recognised each year.
  4. The example also illustrates the profit that would be recognised each year under the Board's tentative conclusions.
  5. Cases 2 and 3 illustrate what happens when there is an adverse change in non-financial assumptions<sup>1</sup> at the end of x2.
  6. In Case 2, the new estimate of expected cash flows at the end of X2 is CU 490 (previous estimate for that date: CU 480). The adverse change reduces the remaining portion of the original margin from CU 120 to CU 110. However, as this still exceeds the risk margin of CU 108, the entire loss is absorbed in the profit margin and will be reflected in lower income over the rest of the contract term. In contrast, under the Board's tentative conclusions, the effect of the change in estimates is recognised immediately.\*
  7. If the adverse change had been in the financial, rather than non-financial assumptions, then the effect would have been recognised immediately in X2, rather than absorbed in the margin. Thus, for a financial assumption, profit and loss in X2 would have decreased by CU 10 in X2, whereas for a non-financial assumption that decrease is spread equally over X2, X3 and X4.
  8. In Case 3, the new estimate of expected cash flows at the end of X2 is CU 570, an increase of CU 90. The first CU 12 of this loss is absorbed by the remaining profit margin, which is then exhausted. The remaining CU 78 of the loss is recognised immediately through the liability adequacy test. In contrast, under the Board's tentative conclusions, the entire loss of CU 90 is recognised immediately.\*

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<sup>1</sup> Under the CFO Forum's proposals, the effect of an adverse change in a financial assumption is recognised immediately.

\* The example assumes that the insurer estimates that the same risk margin is still appropriate.

## Agenda paper 5F Examples

### Base case

For simplicity, discounting, acquisition costs and expenses are ignored

Five year contract

Premium 1,000 at inception

Claims 160 per year, risk even

### Original estimates

	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	480	320	160	0
Margin	200	160	120	80	40	0
Liability recognised	1,000	800	600	400	200	0

Assuming the exit value margin starts at 180 and runs off evenly, the liability adequacy test is as follows:

	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	480	320	160	0
Margin	180	144	108	72	36	0
	980	784	588	392	196	0

Result of the liability adequacy test - no additional liability to be recognised

The remaining margin at the end of each year can be analysed as follows:

Risk margin	180	144	108	72	36	0
profit margin	20	16	12	8	4	0
Total margin	200	160	120	80	40	0

### Profit and loss - CFO Forum basis

	x0	x1	x2	x3	x4	x5	Total
Premiums	0	200	200	200	200	200	1,000
Claims expense	0	-160	-160	-160	-160	-160	-800
Change in estimates							0
Profit	0	40	40	40	40	40	200

### Profit and loss - IASB basis

	x0	x1	x2	x3	x4	x5	Total
Premium - revenue at inception	20						20
Premium - other		196	196	196	196	196	980
claims expense	0	-160	-160	-160	-160	-160	-800
Profit	20	36	36	36	36	36	200

**Case 2: adverse change in assumptions end of X2, absorbed by original margin**

At the end of X2, the new estimate of expected cash flows is 490 (previously 480), incurred equally over the remaining three years.

<b>Original estimates</b>	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	480	320	160	0
Risk margin	180	144	108	72	36	0
Profit margin	20	16	12	8	4	0
Liability recognised	1,000	800	600	400	200	0

**Revised estimates - CFO Forum approach**

	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	490	327	163	0
Risk margin	180	144	108	72	36	0
Profit margin	20	16	2	1	1	0
Liability recognised	1,000	800	600	400	200	0

Assuming the exit value margin is the same as in the base case, the liability adequacy test is as follows:

	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	490	327	163	0
Margin	180	144	108	72	36	0
	980	784	598	399	199	0

Result of the liability adequacy test - no additional liability to be recognised

Comment:

The adverse change (10) reduces the remaining portion of the original margin from 120 to 110. This still exceeds the exit value margin (180 at inception, 108 in X2), so the entire loss is absorbed in the margin and will be reflected in lower income over the rest of the contract term.

The remaining margin at the end of each year can be analysed as follows:

Risk margin	180	144	108	72	36	0
profit margin	20	16	2	1	1	0
Total margin	200	160	110	73	37	0

**Profit and loss - CFO Forum basis**

	x0	x1	x2	x3	x4	x5	Total
Premiums	0	200	200	200	200	200	1,000
Claims expense	0	-160	-160	-163	-163	-163	-810
Change in estimate							0
Profit (loss)	0	40	40	37	37	37	190

**Profit and loss - IASB basis**

	x0	x1	x2	x3	x4	x5	Total
Premium - revenue at inception	20						20
Premium - other		196	196	196	196	196	980
Claims expense		-160	-160	-163	-163	-163	-810
Change in estimate			-10	3	3	3	0
Profit	20	36	26	36	36	36	190

**Case 3: adverse change in assumptions end of X2, exhausts original margin**

At the end of X2, the new estimate of expected cash flows is 570 (base case: 480), spread equally over the remaining three years.

<b>Original estimates</b>	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	480	320	160	0
risk margin	180	144	108	72	36	0
profit margin	20	16	12	8	4	0
Liability	1,000	800	600	400	200	0

<b>Revised estimates - CFO Forum approach</b>	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	570	380	190	0
risk margin	180	144	108	72	36	0
profit margin	20	16	-78	-52	-26	0
	1,000	800	600	400	200	0
Additional liability (liability adequacy test)	0	0	78	52	26	0
Total liability	1,000	800	678	452	226	0

Assuming the exit value risk margin is the same as in the base case, the liability adequacy test is as follows:

	x0	x1	x2	x3	x4	x5
Expected value of cash flows	800	640	570	380	190	0
Risk margin	180	144	108	72	36	0
Liability	980	784	678	452	226	0

Comment:

The adverse change (90) reduces the remaining portion of the original margin from 120 to 30. As a result, the liability adequacy test is triggered. In effect, the first 12 of the loss is absorbed by the profit margin, and the remaining 78 is recognised as an expense

<b>Profit and loss - CFO Forum basis</b>	x0	x1	x2	x3	x4	x5	Total
Premiums	0	200	200	200	200	200	1,000
Claims expense	0	-160	-160	-190	-190	-190	-890
Change in estimate			-78	26	26	26	0
Profit (loss)	0	40	-38	36	36	36	110

<b>Profit and loss - IASB basis</b>	x0	x1	x2	x3	x4	x5	Total
Premium - revenue at inception	20						20
Premium - other		196	196	196	196	196	980
Claims expense		-160	-160	-190	-190	-190	-890
Change in estimate	0		-90	30	30	30	0
Profit (loss)	20	36	-54	36	36	36	110

**Summary of profit or loss - CFO Forum approach**

	x0	x1	x2	x3	x4	x5
Base case	0	40	40	40	40	40
Case 2	0	40	40	37	37	37
Case 3	0	40	-38	36	36	36

**Summary of profit or loss - IASB approach**

	x0	x1	x2	x3	x4	x5
Base case	20	36	36	36	36	36
Case 2	20	36	26	36	36	36
Case 3	20	36	-54	36	36	36