Revenue Recognition for Long Duration Insurance

An illustration of how revenue can be related to movement in contract liabilities

Introduction

As part of its insurance project, the International Accounting Standards Board (IASB or the Board) is considering presentation in the financial statements. An important part of presentation is the recognition of revenue. The Board has tentatively decided that revenue for short duration contracts will be recognized by the earned premium approach. The Board is considering several possibilities for the recognition of revenue for other contracts.

This paper presents an approach that can be applied to most, if not all, long duration contracts that is consistent in concept and approach with an unearned premium approach and with the approach described in the Board's discussion paper Revenue Recognition in Contracts with Customers. This approach avoids including in revenue amounts that contribute to deposit or financial components of contracts. At the same time, it does not require unbundling of contracts. As the example shows, the key to the approach is to analyze the movement in the insurance liability and to recognize in revenue those amounts that are released from the liability that relate to performance under the insurance or service features. Elements of the movement in the liability that relate to amounts that are ultimately repaid to the customer do not affect revenue.

The example

The approach is illustrated by considering a five year level-premium term life insurance contracts. The expected cash flows are show in the Table 1.

Table 1 **CASH FLOWS**

Year	1	2	3	4	5	Total
Premiums – occurs at beginning of year	120	120	120	120	120	600
Benefits – occurs at end of year	50	75	105	140	180	550
Net contract cash flow for the year	70	45	15	-20	-60	50
Cumulative contract cash flows	70	115	130	110	50	
Investment income @ 5%	6	10	12	13	12	51
Total cash flow for the year	76	55	27	-8	-49	101
Cumulative cash flow = invested assets	76	131	157	150	101	

Amounts are not intended to be realistic, but they do reflect the nature of life insurance; namely that a level premium charged for an increasing benefit is a common structure.

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For simplification, the example does not consider the possibility that some policyholders will cancel their contracts and decrements due to death or ignored. Expenses, both acquisition costs and administrative expenses, are also ignored. Cancelations, expenses, characteristics of other more complex contracts, and other refinements can be considered in additional examples if the Board wishes to pursue this approach further. Benefits are short-tailed, so the possibility or recognizing revenue beyond the term of coverage is not considered here.

The liability

The liability is the accumulated cash flows. The approach requires that the cash flows be considered over the entire term of the contract. The boundary issue is one that the Board has discussed and is seeking to clarify. For this contract we treat it as apparent that the contract term is five years and this is the basis for the calculations. Because the present value of premiums exceeds the present value of benefits, there is a pricing margin in the contract. The value of the margin at inception of the contract is 83. In this approach, the premium is a deposit to the liability and the pricing margin is systematically released over the term of the contract. The margin in this example is released pro-rata, but is not the intent of the illustration to suggest how the initial margin should be released. The approach to revenue recognition is not dependent on how the margin is released.

The movement in the liability is shown in Table 2.

Table 2 Movement in the liability

Year	1	2	3	4	5
Beginning liability	0	55	89	95	68
plus premium	120	120	120	120	120
plus interest credited	6	9	10	11	9
minus benefits	50	75	105	140	180
minus margin released	21	20	19	18	17
Ending liability	55	89	95	68	0

Interest credited is on the beginning liability plus cash flows for the year. The margin released reflects that interest is credited on the entire liability, including margin (i.e., it is not 1/5 of the initial margin).

Table 2 shows retrospective calculation. A prospective calculation is the more familiar present value of future benefits less the present value future premiums. When the valuation premium is a net premium, or, as in this case, a full margin premium, then the liability is the same by a prospective or a retrospective calculation. Table 3 shows the prospective calculation.

Table 3 Prospective calculation

Year		1	2	3	4	5
PV Benefits	463	436	382	297	171	0
Margin	83	66	50	33	17	0
PV Premiums	426	447	343	234	120	0
Liability	120	55	89	95	68	0

Actuaries are likely to favor the prospective calculation as it automatically adjusts the liability to the actual current inventory of contracts. The gain or loss on this adjustment is another issue that must be addressed.

Revenue recognition

The movement in the liability (Table 2) provides the elements for revenue recognition. The insurance revenue is the expected insurance benefits and expenses and the release of margin for the period. It is not enough to consider margins only. Revenue for a typical sale of services or goods includes *de facto* the expected costs and the margin. The breakout is not needed, it is only necessary to know the consideration and how it should be recognized. For insurance revenue is built from the elements in the movement of the liability. Any unrecognized revenue from premiums already collected remains in the liability. This paper does not address the possibility of revenue exceeding premiums collected (if premiums are recognized to the extent of acquisition costs, for example). As already mentioned, more complex contracts than the one in this example, for examples, those with fees, are left for future analysis. It can be surmised that to be consistent with this approach, fees will form part of a companion liability, akin to a performance obligation, and the recognition of revenue will need to consider the movement in this account as well.

Investment income is recognized according to the standards on financial instruments. For this example it is the interest on net cash flows from Table 1.

Table 4 Revenue and Expenses, Profit or loss

Year	1	2	3	4	5
Revenue					
Contract revenue = expected benefits plus margin released	71	95	124	158	197
Investment income	6	10	12	13	12
Total revenue	77	104	136	171	209
Expenses					
Actual Benefits (=expected)	50	75	105	140	180
Interest credited	6	9	10	11	9
Total expenses	56	84	115	151	189
Profit or loss	21	21	20	20	20

Not surprisingly, the pattern of profit is driven by the release of margin. In reality there would be other sources of profit or loss. Differences in benefits and expenses from the expected amounts would affect profit or loss. Potentially the most significant of these is the difference between the rate earned on investments and the discount rate. Changes due to re-measurement would also affect profit or loss.

Respectfully submitted by
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October 30, 2009