Impact of the use of a locked-in discount rate for the CSM

Inconsistency in CSM and BEL measurement approaches

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1. Executive Summary

Under IFRS 17, inconsistency in the measurement basis of the Contractual Service Margin (CSM), which is calculated using locked-in discount rates for business outside the scope of the Variable Fee Approach (VFA), and the Best Estimate Liability (BEL), which is calculated on a current basis, can lead to inappropriate volatility in total comprehensive income (TCI) and shareholder equity.

Investors seeking sensible return on equity (ROE) measures may be misled by this volatility, which is due to an accounting mismatch in the IASB model rather than economic reality.

The issue arises in all contracts but the testing described in this paper highlights particular conditions in which the effect is exacerbated.

2. Objective

This paper describes an issue arising from the inconsistent treatment of the CSM and BEL under changing interest rate conditions. The CSM is a measure of deferred profit using a locked in discount rate whereas the BEL uses a current value approach.

The objective of this paper is to provide insight into the drivers of the issue and provide an illustration of the potential impact.

3. Background

IASB Position

IFRS 17 requires that for contracts outside the VFA, an entity should use the locked-in rate at the inception of the contract for accreting interest on the CSM and for calculating the change in present value of expected cash flows that adjusts the CSM. However, the use of a locked-in rate has unintended consequences which are highlighted below.

Summary of issue

Due to the locked in nature of the CSM for contracts outside the VFA, it is not responsive to changes in economic conditions in the way that the BEL is. This gives rise to misleading levels of, and volatility in, shareholders' equity irrespective of whether or not a FVTPL or OCI approach is applied for value movements in investments and the BEL.

The issue is present for all contracts but most notable for regular premium non-participating contracts (e.g. protection contracts). The issue arises for all regular premium contracts but the impact is particularly material for contracts where the BEL is an asset and for markets where interest rates are more volatile.

To set out the issue, consider a regular premium term assurance and, for ease, ignore the risk adjustment. At inception:

- The contract is profitable and on day 1 the present value of the best estimate of fulfilment cashflows is negative, i.e. the BEL is an asset, as income exceeds outgo (page 4 includes an example of a product where this occurs).
- A CSM liability is created to defer the profit emergence
- The CSM liability is offset by the fulfilment cashflow asset (i.e. negative BEL) so there is no impact on income or equity at inception.

On day 2 there is a fall in interest rates:

- The CSM does not respond to market conditions as it is not recalibrated for changes in interest rates that economically alter the net present value of excess cash flows. In addition to the lack of recalibration for interest rates, interest is accreted at the day-1 interest rate in both the income statement and balance sheet.

Issue – Impact on Shareholder Equity

The issue arises as the CSM is the only part of the balance sheet that is not fully reflective of current market conditions.

The **nominal cashflows projected to emerge in each future year are unchanged** as they are fixed, there is no change in future estimates. The interest accretion on the CSM does not match the impact of the discounting effect on the fulfilment cashflow asset.

- The BEL, or fulfilment cashflow asset, represents the present value (under current market conditions) of the future margins (income exceeding outgo).
- The CSM represents a residual balance from inception released over the coverage period using locked-in economic assumptions.
- **So the unintended consequence is that whereas the amount of margin in the product is unchanged by this economic event, the mechanism that determines the shape of recognition of those margins is changed. There is an inconsistency.**

Changes in the value of future cash flows, following changes to market conditions, are recognised immediately through changes in the BEL. However, these changes in value also give rise to changes in the value of future margins which logically should give rise to a recalibration of the CSM. However, with the use of the locked-in rate, this gives rise to volatility in shareholder equity and TCI.

The present value of unearned profit is impacted by economic conditions, but credit for this value is not taken by the insurer at inception. It is therefore inconsistent that changes in this value flows to shareholder equity when the value itself is not in equity.

Testing has indicated that significant volatility can arise in shareholder equity due to this mismatch.

Investors are seeking sensible ROE measures that reflect economic reality. However, under IFRS 17, shareholders' equity and ROE measures will be distorted, even if an OCI approach is used.

While this accounting mismatch is most apparent in circumstances where the fulfilment cashflows are an asset, there is always an accounting mismatch for contracts outside the VFA as some elements of the balance sheet are current (i.e. assets valued on a FVTPL basis, BEL and risk adjustment), whereas the CSM is determined using locked-in discount rates. For example:

- For a single premium contract, cash is received from the premium and assets are purchased to back expected payments to policyholders. A CSM is established to offset expected day-1 profits. As the invested assets broadly match the expected payments to policyholders, these move in a similar manner when interest rates move. The CSM is small in comparison, so the distortion from using a locked-in discount rate for the CSM is masked.
- For a regular premium contract, the day-1 premium is small so the CSM anomaly is more visible.

4. Why is this an issue?

Volatility in the financial results is not, in itself, inappropriate if it results from economic volatility. However, volatility arising due to use of a mixture of locked-in and current measurement approaches, or other accounting mismatches, is artificial and misleading. Although artificial volatility in the income statement can be addressed through the use of OCI, this does not resolve the issue of volatility in shareholder equity which creates misleading information for those trying to value and invest in the insurance sector who often utilise return on equity measures.

The IASB model is largely a current value model, with the initial gain deferred (in the CSM) – a 'deferred revenue' concept within an otherwise current model. This raises the question on how one sees the CSM. Two approaches can be considered:

A. As a residual balance from inception released over the coverage period in a certain pattern, using locked-in economic assumptions for consistency, as applies under IFRS 17; or
B. As a balance that represents a measure of current unearned profit where it could be justified to re-measure the CSM for a number of changes, including for all changes in market variables.

The conclusion of this paper is that the CSM should be considered as a current measure of unearned profit as outlined in B above and that, for all contracts (non-participating and participating), the CSM should be unlocked for changes in the discount rate to avoid an accounting mismatch.

5. Example

A simplified numerical example with regular positive net cash flows is shown below. The example assumes an initial discount rate of 10%, reducing to 7% at the end of year 2. Such a movement in yields is not unrealistic as, for one significant insurance market, the risk free rate moved by more than 3% in one year.

These cashflows are unchanged by changes in the economics/ interest rate.

Policy Year	0	1	2	3	4	5	6	7	8	9	10	Cumulative
Premiums		500	500	500	500	500	500	500	500	500	500	
Claims and expenses		490	480	470	460	450	440	430	420	410	400	
Net Cash flow		10	20	30	40	50	60	70	80	90	100	550
Base Scenario, discount rates constant at 10%												
Interest on asset (BEL)[1]		29	31	32	32	31	30	27	22	16	9	
Interest on CSM[2]		(29)	(27)	(25)	(23)	(21)	(18)	(15)	(12)	(8)	(4)	
Release of CSM		47	47	47	47	47	47	47	47	47	47	
Net Income		47	51	54	56	58	59	59	58	55	52	550
OCI		0	0	0	0	0	0	0	0	0	0	0
TCI		47	51	54	56	58	59	59	58	55	52	550
Invested assets	0	10	30	60	100	150	210	280	360	450	550	
BEL	290	309	320	322	315	296	266	222	164	91	0	
CSM	(290)	(272)	(252)	(230)	(206)	(179)	(150)	(118)	(82)	(43)	0	
Equity	0	47	98	152	209	267	326	385	442	498	550	
Scenario 2 - Discount rates drop to 7% at the end of year 2, with locked in CSM, rate changes for BEL taken to OCI												
Interest on asset (BEL)		29	31	32	32	31	30	27	22	16	9	
Interest on CSM		(29)	(27)	(25)	(23)	(21)	(18)	(15)	(12)	(8)	(4)	
Release of CSM		47	47	47	47	47	47	47	47	47	47	
Net Income		47	51	54	56	58	59	59	58	55	52	550
OCI[3]		0	47	(6)	(7)	(7)	(7)	(7)	(6)	(4)	(3)	0
TCI		47	98	48	50	51	52	52	52	51	50	550
Invested assets	0	10	30	60	100	150	210	280	360	450	550	
BEL	290	309	367	363	348	322	285	235	171	93	0	
CSM	(290)	(272)	(252)	(230)	(206)	(179)	(150)	(118)	(82)	(43)	0	
Equity[4]	0	47	145	193	242	293	345	397	449	500	550	
Scenario 3 - Discount rates drop to 7% at the end of year 2, CSM remeasured for change in discount rate, rate changes for BEL & CSM taken to OCI												
Interest on asset (BEL)		29	31	32	32	31	30	27	22	16	9	
Interest on CSM		(29)	(27)	(25)	(23)	(21)	(18)	(15)	(12)	(8)	(4)	
Release of CSM		47	47	47	47	47	47	47	47	47	47	
Net Income		47	51	54	56	58	59	59	58	55	52	550
OCI[5]		0	17	(1)	(2)	(2)	(3)	(3)	(3)	(2)	(1)	0
TCI		47	68	53	55	56	56	56	55	53	51	550
Invested assets	0	10	30	60	100	150	210	280	360	450	550	
BEL	290	309	367	363	348	322	285	235	171	93	0	
CSM	(290)	(272)	(282)	(255)	(225)	(194)	(160)	(124)	(85)	(44)	0	
Equity	0	47	115	168	223	279	335	391	446	499	550	

Significant increase in equity versus the base case above, followed by lower increases because although the income statement reflects locked in rates, the difference between the market and locked-in rate on the BEL is still taken through OCI

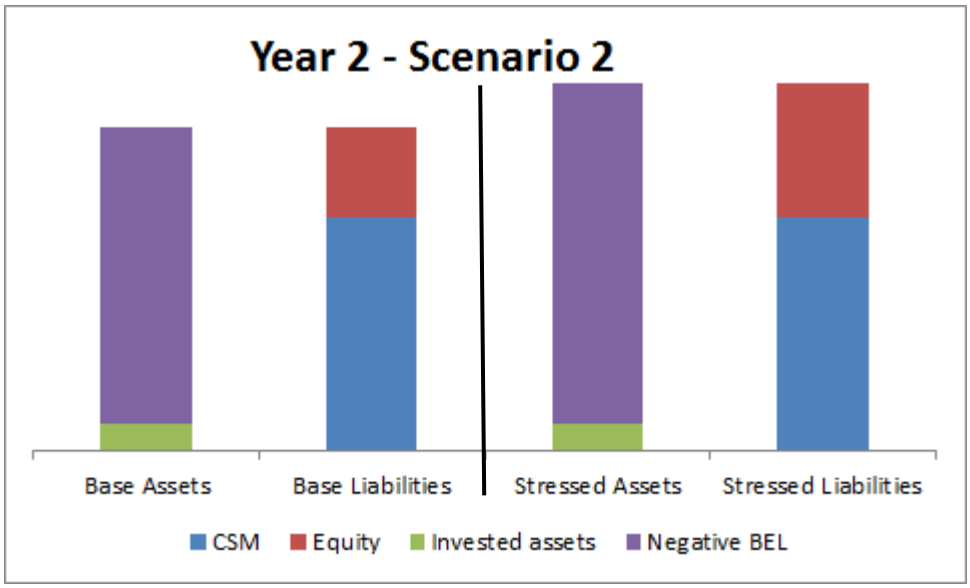
Less volatility in equity because the CSM is also remeasured at current market rates. This treatment mirrors that of the BEL. The impact of changes in rates is taken to OCI.

1. Unwind of the discount rate, at locked-in rate, on the fulfilment cashflow asset
2. Accretion of interest, at locked-in rate, on the CSM liability
3. Change in BEL due to discount rate change. This unwinds to zero over the duration of the contract.
4. Change in BEL and CSM due to interest rate change. This unwinds to zero over the duration of the contract.

These results are illustrated in the following charts.

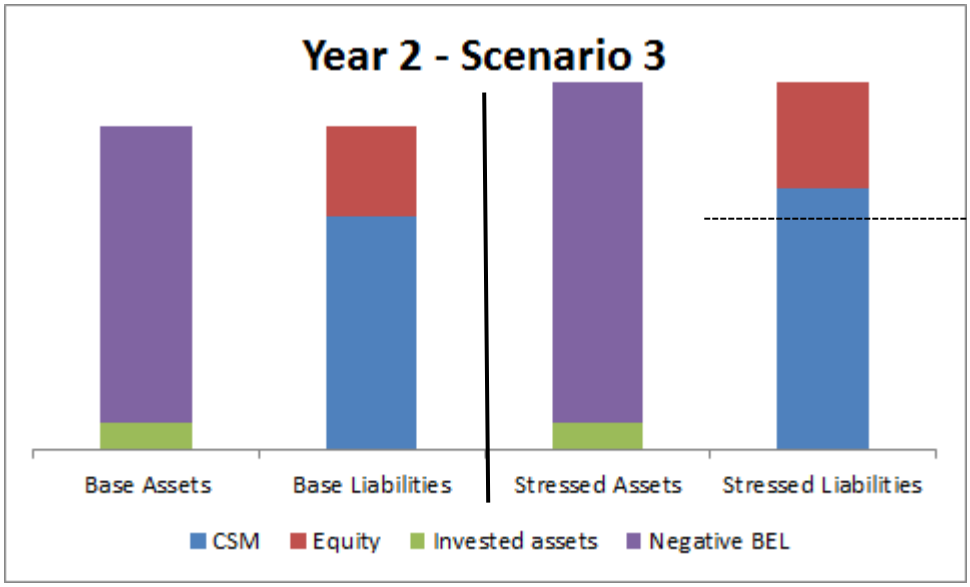
Scenario 2

- Discount rates drop to 7% at the end of year 2
- BEL (asset) increases due to fall in yield
- IFRS 17 with locked in CSM
- Equity increases



Scenario3

- Discount rates drop to 7% at the end of year 2
- BEL (asset) increases due to fall in yield
- CSM remeasured for change in yield
- Equity not impacted by yield change



CSM using locked-in assumptions

Base assets and liabilities and stressed assets as per Scenario 2

6. Proposed solutions

This issue could be resolved by remeasuring the CSM for discount rate changes. There are several potential methods for doing this, for example:

- Identify the expected CSM release as a series of notional cash flows with remeasurement at the new discount rate each period.
- Determine the change in CSM required to prospectively compensate for the change in discount rates from initial to current. This “re-marking” will occur following rate changes and allow the CSM amortisation pattern to remain identical to that determined at the outset.