Sources of mismatches between direct business issued and reinsurance contracts held

[This article is one in a series of articles (which can be found here and here) published on behalf of the IFRS 17 CSM Working Party. Members are Antoon Pelsser, Asim Ghosh, Brendon Thorpe, Carmen Iftode, Clarence Er, James Thorpe, Joanna Stansfield, Kruti Malde, Leong Tan, Natalia Mirin (Deputy Chair), Richard Dyble, Rob Walton, Timothy Berry, Weihe Qin and Wijdan Yousuf (Chair).]

1. Introduction

There are several potential sources of mismatches when measuring gross business and reinsurance held under IFRS 17. In this article, we touch on one of the more contentious aspects of these requirements, that of estimating future new business for reinsurance contracts held.

2. Estimating future new business

When measuring reinsurance contracts held, IFRS 17 requires companies to estimate the future new business that will be reinsured under those contracts. This requirement only applies for the reinsurance contract held and not for the underlying (gross) unit of account.

Not only does this create technical challenges in relation to how that future new business will be forecast, this may also become a source of future mismatches in the balance sheet and consequently the P&L only if there are differences in how provision of service is measured between gross and the reinsured business.

Consider a company that enters a 100% quota share treaty on an original terms basis. Based on information from its business plan, with necessary adjustments to reflect the expected impacts of any repricing activity and a marketing strategy (or other relevant items), it estimates that 2 direct contracts will be written per month for the next quarter. In reality, it turns out that only 1 contract is written per month.

Each contract has a term of 10 months (but is valued through the BBA or GM) with expected premiums of £60 per month decreasing by £5 each month (total expected premiums = £375) and expected claims of £5 per month increasing by £5 each month (total expected claims = £275). Each contract is therefore expected to make the company £100 in total over its lifetime:

		Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Month 7**	**Month 8**	**Month 9**	**Month 10**	***Total***
Expected cash flows <u>for each contract</u>	Premiums	£60	£55	£50	£45	£40	£35	£30	£25	£20	£15	***£375***
	Claims	-£5	-£10	-£15	-£20	-£25	-£30	-£35	-£40	-£45	-£50	***£275***
	Net	£55	£45	£35	£25	£15	£5	-£5	-£15	-£25	-£35	***£100***

For simplicity, risk adjustment is ignored and interest rates are assumed to be 0%. We also assume the risk of reinsurer default is zero.

Initial measurement

For the gross unit of account, the company will only recognize contracts as and when it actually writes this business. Consequently on day 1, it recognizes one contract on the balance sheet with PVFCF of -£100 and a CSM of £100 giving a gross LRC of £0.

However, for the reinsurance unit of account, the company will need to recognize estimated cash flows for the 6 contracts it expects under the quota share in this quarter; the PVFCF on the balance sheet will be £600 and the CSM will be -£600 giving a reinsurance LRC of £0 as well.

Therefore, at initial recognition, the requirement to estimate future new business does not create a balance sheet mismatch.

Subsequent measurement

At the end of the first month, the company prepares its monthly results.

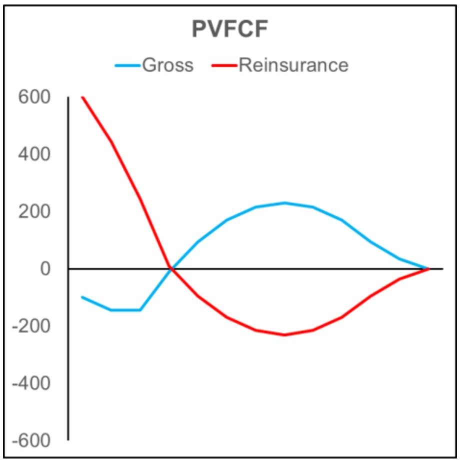
For the gross unit of account, the PVFCF for its first contract reduces to -£45 (as £55 of expected gross cash flows have now emerged). Meanwhile the gross CSM runs off from £100 to £90 based on the coverage units implied by the single contract currently included in the gross unit of account. By this point, the company recognizes the second new contract it has written (PVFCF of -£100 and a CSM of £100). This means that by the end of the first month, the gross unit of account now has a PVFCF of -£145, a CSM of £190 and an LRC of £45.

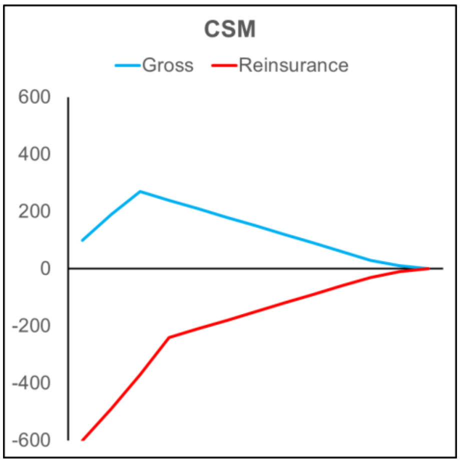
For the reinsurance unit of account, the PVFCF will reduce from £600 to £445. £100 of this reduction is due to the fact that the company expected two contracts to be written in the first month but only ended up writing one. The remainder is based on the £55 of expected reinsurance cash flows that have now emerged.

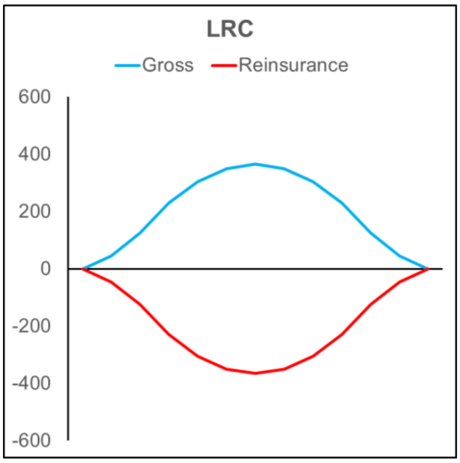
The reinsurance CSM reduces from -£600 to -£490 (a reduction of £110). £100 of this reduction reflects an adjustment in respect of future service as noted above in the PVFCF: there are now only 5 expected underlying contracts being reinsured instead of 6 (and therefore £100 of net cash flows owed to the reinsurer will never transpire). The remainder relates to the CSM being amortised based on coverage units implied by 5 contracts currently included in the unit of account (instead of the 6 we expected to begin with).

Consequently, by the end of the first month, the reinsurance unit of account now has a PVFCF of £445, a CSM of -£490, and an LRC of -£45.

We continue to track the measurement of the contracts for the remainder of the year until the entire block of business runs off. This allows us to produce the following graphs and tables that illustrate the PVFCF, CSM and LRC profiles for both the gross and reinsurance units of account.



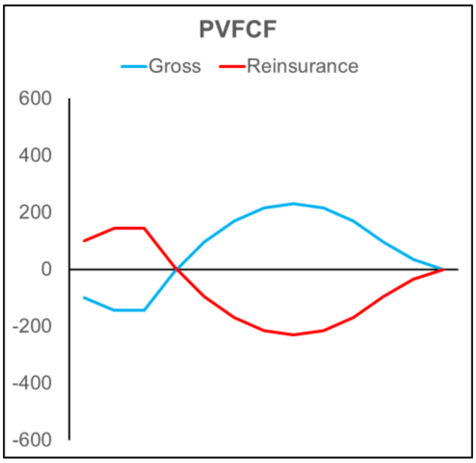


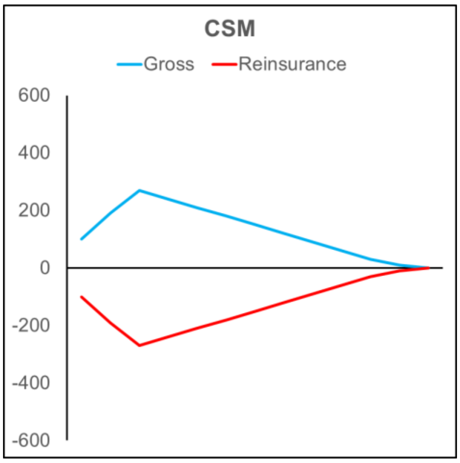


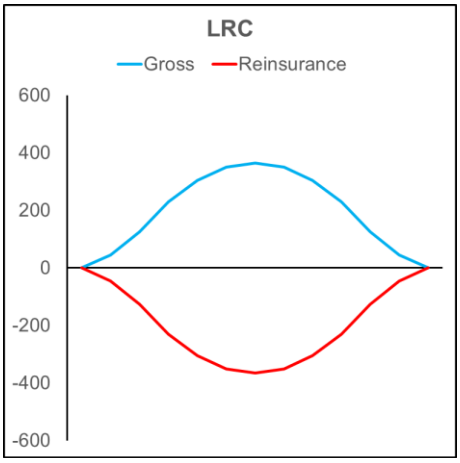
		Inception	End of Month 1	End of Month 2	End of Month 3	End of Month 4	End of Month 5	End of Month 6	End of Month 7	End of Month 8	End of Month 9	End of Month 10	End of Month 11	End of Month 12
PVFCF	Gross	(100)	(145)	(145)	(10)	95	170	215	230	215	170	95	35	0
	Reins.	600	445	245	10	(95)	(170)	(215)	(230)	(215)	(170)	(95)	(35)	0
CSM	Gross	100	190	270	240	210	180	150	120	90	60	30	10	0
	Reins.	(600)	(490)	(370)	(240)	(210)	(180)	(150)	(120)	(90)	(60)	(30)	(10)	0
LRC	Gross	0	45	125	230	305	350	365	350	305	230	125	45	0
	Reins.	0	(45)	(125)	(230)	(305)	(350)	(365)	(350)	(305)	(230)	(125)	(45)	0

This shows that provided there is a consistent measurement of service being provided between the gross and reinsurance unit of account, then even though there may be differences in the PVFCF and CSM balances initially resulting from differences in estimates of cash flows, these do not necessarily have to result in mismatches resulting in the LRC.

Now let's reproduce the information above but this time assume that for the purposes of measuring the reinsurance contract, future new business will only be recognized as and when it is recognized for the gross unit of account. This gives the following results:







		Inception	End of Month 1	End of Month 2	End of Month 3	End of Month 4	End of Month 5	End of Month 6	End of Month 7	End of Month 8	End of Month 9	End of Month 10	End of Month 11	End of Month 12
PVFCF	Gross	(100)	(145)	(145)	(10)	95	170	215	230	215	170	95	35	0
	Reins.	100	145	145	10	(95)	(170)	(215)	(230)	(215)	(170)	(95)	(35)	0
CSM	Gross	100	190	270	240	210	180	150	120	90	60	30	10	0
	Reins.	(100)	(190)	(270)	(240)	(210)	(180)	(150)	(120)	(90)	(60)	(30)	(10)	0
LRC	Gross	0	45	125	230	305	350	365	350	305	230	125	45	0
	Reins.	0	(45)	(125)	(230)	(305)	(350)	(365)	(350)	(305)	(230)	(125)	(45)	0

As can be seen, under this approach, the PVFCF, CSM and LRC balances for the gross and reinsurance units of account are mirror images of each other. Further, the LRC balances under this approach are entirely the same as those under the method required by IFRS 17.

The question then is, since estimating or not estimating future new business does not affect the carrying amounts of the LRC for the reinsurance held, and since not estimating future new business arguably provides a clearer and a more intuitive picture of the performance of the business, why should it be necessary to go through the complexity of doing estimating new business in the first place? Apart from the fact that this is a requirement of IFRS 17 and is designed to provide a best estimate measurement of the reinsurance contract held, it is not clear there are many other reasons. Companies should therefore form their own opinions and discuss with auditors as to the way forward.

3. Conclusion

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