4th Capacity Building Seminar on IFRS 17 Holiday Inn, Mumbai 6th November 2019

Onerous Contracts

Jinal Pandit, Partner & Rashi Manek, Actuarial Manager M/s. K. A. Pandit Consultants & Actuaries



Institute of Actuaries of India

Agenda



- What are Onerous Contracts?
- How to identify a group of onerous contracts?
- Measurement of group of Onerous contracts
 - Initial Measurement
 - Subsequent Measurement
- Practical challenges / other considerations



What are Onerous contracts?



Group of contracts which are either:

- Loss making at initial recognition: Full deficit recognized as loss immediately.
- Become Loss making during the lifetime of the contract (i.e. subsequent measurement):

Unfavorable changes in FCF reducing CSM to be zero and resulting in further deficit.

Note contract has to be *loss making as per IFRS 17 measurement requirements*.



Agenda



- What are Onerous Contracts?
- How to identify a group of onerous contracts?
- Measurement of group of Onerous contracts
 - Initial Measurement
 - Subsequent Measurement
- Practical challenges / other considerations

Level of aggregation required



IFRS 17 requires dividing contracts into **minimum of 3 groups** for **all measurement purposes**:





Para 17 of IFRS 17 Standard allows:

 Testing onerousness for a set of contracts provided reasonable and supportable information exists to conclude that a set of contracts will all be in the same group

Else, test onerousness by considering individual contracts.

Determining level at which onerousness should be tested



- What is reasonable and supportable information?
 - Business plan of Company
 - Pricing models / structures
- Practical cases where contract level assessment may need to be considered:
 - Age / term combinations priced differently (e.g. band break-points)
 - Low cost channels subsidizing contracts sold through high cost distribution channels (Cross-subsidy)
 - Smoothing of premium rates for certain ages / terms
 - Loss leader pricing for some variants
- Should materiality argument be considered in deciding the level of testing?

Performing test of Onerousness



www.actuariesindia.org

Contract is Onerous if FCF at initial recognition is net outflow i.e. FCF at initial recognition > 0

Note that the test is performed:

- Using IFRS 17 assumptions and measurement model which may differ from pricing assumptions and methodology (for e.g. yield curve differences, contract boundaries etc.).
- Without taking any reinsurance credit.

Agenda



- What are Onerous Contracts?
- How to identify a group of onerous contracts?
- Measurement of group of Onerous contracts
 - Initial Measurement
 - Subsequent Measurement
- Practical challenges / other considerations

Case Study



www.actuariesindia.org

A contract is issued with the following information and a coverage period of 3 years:

Particulars	Initial Recognition	Year 1	Year 2	Year 3
	(INR)	(INR)	(INR)	(INR)
Premiums Received (BOP)		1000	1000	
Payout (Benefits + Expenses) (EOP)		800	500	1000
Discount rate assumed	5%			
Risk Adjustment assumed (BOP)		240	160	80

BOP – Beginning of Period, EOP – End of Period

- No lapses assumed.
- All other amounts, including the investment component are ignored, for simplicity

* The numbers are for representative purposes only and may have been rounded for presentation. We have wanted to stress on the calculation methodology.

Initial Recognition/Measurement



Particulars	Initial Recognition
Estimates of the present value of future cash inflows	-1,952
Estimates of the present value of future cash outflows	2,079
Estimates of the present value of future cash flows	127
Risk adjustment for non-financial risk	240
Fulfilment Cash Flows	(367)
Contractual Service Margin	-
Insurance Contract Liability	367

- FCF of INR 367 > 0, Contract is Onerous
- Loss of INR 367 recognized immediately in the P&L under Insurance Service Expense Line
- Create Loss Component (LC) of INR 367 and track in future

Subsequent Measurement (Year 1)



Roll forward of ICL from Initial Recognition to Year 1

In Year 1, all events occur as expected on Initial Recognition.

Particulars	Estimates of the present value of future cash flows	Risk adjustment for non-financial risk	Contractual Service Margin	Insurance Contract Liability
Opening Balance	-	-	-	-
Changes related to future service: New Contracts	127	240	-	367
Cash inflows	1,000	-	-	1,000
Insurance finance expense	56	-	-	56
Changes related to current service	-	(-80)	-	-80
Cash Outflows	-800	_	_	-800
Closing Balance	383	160	-	543

- FCF of INR 367 has flown from Initial Recognition
- Insurance finance expense of INR 56 is calculated as 5%*(1000+127)
- Release of RA of INR 80, as it is released evenly

Loss Component Tracking





Following changes in FCF are allocated between LC and remaining liability:

- Expected payment for claims and expenses during the period
- Release of Risk Adjustment during the period
- Insurance finance income or expenses component of FCF

Allocation is done in a systematic manner.

For the purposes of the example, the Systematic Allocation Ratio (SAR) is **Opening LC / Opening FCF**

Loss Component Tracking (Year 1)



Roll forward of Loss Component from Initial Recognition to Year 1

Particulars	Liability for remaining coverage, excluding LC	Loss component	Liability for incurred claims	Insurance Contract Liability
Opening Balance	-	-	-	-
Cash inflows	1,000	-	-	1,000
Insurance service expenses: Loss on onerous contracts	-	367	-	367
Insurance finance expense	41	15	-	56
Insurance Revenue	-644	-	-	-644
Insurance service expenses: Incurred expenses	-	-236	800	564
Cash Outflows	-	-	-800	-800
Closing Balance	397	(146)	-	543

- The SAR for Year 1 is calculated as Opening LC / Opening FCF including cashflows at time 1 i.e. (367/367+1000) = 26.84%
- Amount allocated to LC = **corresponding FCF change * SAR**

Profit and Loss for Year 1



Particulars	Amount
Insurance Revenue	644
-Release of CSM	-
-Release of RA	59
-Expected Claims and Expenses at the beginning of the period	585
-Insurance Contract Acquisition Cashflows	-
Insurance Service Expenses	-931
-Actual Claims	-800
-Incurred Claims and Benefits	-
-Insurance Contract Acquisition Cashflows	-
-Loss on Onerous Contracts	-367
-Reversal of Loss	236
Insurance Service Result (A)	-287
Investment Income	-
Insurance Finance Income/(Expenses)	-56
-Liability for Remaining Coverage	-41
-Financing Component of LC	-15
Insurance Finance Result (B)	-56
Profit/Loss for the year (A+B)	-343



Scenario A : Contract becomes profitable



www.actuariesindia.org

The expectation of future cash outgo in Year 3 changes from INR 1000 to INR 750

Particulars	Initial Recognition	Year 1	Year 2	Year 3
	(INR)	(INR)	(INR)	(INR)
Premiums Received (BOP)		1000	1000	
Payout (Benefits + Expenses) (EOP)		800	500	750
Discount rate assumed	5%			
Risk Adjustment assumed (BOP)		240	160	80

BOP – Beginning of Period, EOP – End of Period

• Changes in FCF due to improvements in future service cashflows, first reduce the amount of the LC and after LC becomes 0, a CSM is created.

Subsequent Measurement (Year 2 – Scenario A)



Roll forward of ICL from Year 1 to Year 2

In Year 2, expectation of cash outflow which will happen in Year 3 is revised to INR 750 instead of INR 1000 expected originally.

Particulars	Estimates of the present value of future cash flows	Risk adjustment for non-financial risk	Contractual Service Margin	Insurance Contract Liability
Opening Balance	383	160	-	543
Changes related to future service: New Contracts	-	-	-	-
Cash inflows	1,000	-	-	1,000
Insurance finance expense	69	-	-	69
Changes related to future service: change in assumptions	-238		229	-9
Changes related to current service	-	-80	-	-80
Cash Outflows	-500	-	-	-500
Closing Balance	714	160	229	1024

 It can be seen that the improvements in FCF are INR 238, out of which INR 9 has been allocated to the LC to reduce it to 0 and the remaining INR 229 has enabled us to create a CSM.

Loss Component Tracking (Year 2 – Scenario A)



Roll forward of Loss Component from Year 1 to Year 2

Particulars	Liability for remaining coverage, excluding LC	Loss component	Liability for incurred claims	Insurance Contract Liability
Opening Balance	397	146	-	543
Cash inflows	1,000	-	-	1,000
Insurance finance expense	51	19	-	69
Insurance Revenue	-424	-	-	-424
Insurance service expenses: Incurred expenses	-	-156	500	344
Insurance service expenses: Reversal of loss on Onerous Contracts	-	-9	-	-9
Cash Outflows	-	-	-500	-500
Closing Balance	1024	$\left(- \right)$	-	1024

- The SAR for Year 2 is calculated as Opening LC / Opening FCF at time 2 i.e. (146/543) = 26.84%.
- It can be seen that the improvements in FCF are INR 238, out of which INR 9 has been allocated to the LC to reduce it to 0 and the remaining INR 229 has enabled us to create a CSM.
 www.actuariesindia.org

Subsequent Measurement (Year 3 – Scenario A)



Roll forward of ICL from Year 2 to Year 3

In Year 3, all events occur as expected in Year 2.

Particulars	Estimates of the present value of future cash flows	Risk adjustment for non-financial risk	Contractual Service Margin	Insurance Contract Liability
Opening Balance	714	80	229	1024
Changes related to future service: New Contracts	-	-	-	-
Cash inflows	-	-	-	-
Insurance finance expense	36	-	11	47
Changes related to current service	-	-80	-241	-321
Cash Outflows	-750	-		-750
Closing Balance	-	-	-	-

• CSM of INR 241 is released in its entirety as the contract is derecognised



Profit and Loss for Year 2 and Year 3 - Scenario A

	Year 2	Year 3
Particulars	Amount	Amount
Insurance Revenue	424	1071
-Release of CSM	-	241
-Release of RA	59	80
-Expected Claims and Expenses at the beginning of the period	366	750
-Insurance Contract Acquisition Cashflows	-	-
Insurance Service Expenses	-336	-750
-Actual Claims	-500	-750
-Incurred Claims and Benefits	-	-
-Insurance Contract Acquisition Cashflows	-	-
-Loss on Onerous Contracts	-	-
-Reversal of Loss	164	-
Insurance Service Result (A)	89	321
Investment Income	-	-
Insurance Finance Income/(Expenses)	-69	-47
-Liability for Remaining Coverage	-51	-36
-Financing Component of LC	-19	-11
Insurance Finance Result (B)	-69	-47
Profit/Loss for the year (A+B)	20	274



Changes with respect to expectations of future cashflows in year 2 – Scenario B



The expectation of future cash outgo in Year 3 changes from INR 1000 to INR 1200

Particulare	Initial Recognition	Year 1	Year 2	Year 3
	(INR)	(INR)	(INR)	(INR)
Premiums Received (BOP)		1000	1000	
Payout (Benefits + Expenses) (EOP)		800	500	1200
Discount rate assumed	5%			
Risk Adjustment assumed (BOP)		240	160	80

BOP – Beginning of Period, EOP – End of Period

• Changes in FCF which lead to an increase in future service cashflows, increase the LC and such increase is recognised immediately in the P&L.

**Reminder - Systematic Allocation Ratio (SAR) for Year 2 = (146/543) = 26.84%

Subsequent Measurement (Year 2 – Scenario B)



Roll forward of ICL from Year 1 to Year 2

In Year 2, expectation of cash outflow which will happen in Year 3 is revised to INR 1200 instead of INR 1000 expected originally.

Particulars	Estimates of the present value of future cash flows	Risk adjustment for non-financial risk	Contractual Service Margin	Insurance Contract Liability
Opening Balance	383	160	-	543
Changes related to future service: New Contracts	-	-	-	-
Cash inflows	1,000	-	-	1,000
Insurance finance expense	69	-	-	69
Changes related to future service: change in assumptions	190		-	190
Changes related to current service	-	-80	-	-80
Cash Outflows	-500	-	-	-500
Closing Balance	1143	160	229	1223

 It can be seen that the increase in the FCF of INR 190 increases the LC and the same in recognised immediately in the P&L.

Loss Component Tracking (Year 2 – Scenario B)



Roll forward of Loss Component from Year 1 to Year 2

Particulars	Liability for remaining coverage, excluding LC	Loss component	Liability for incurred claims	Insurance Contract Liability
Opening Balance	397	146	-	543
Cash inflows	1,000	-	-	1,000
Insurance finance expense	51	19	-	69
Insurance Revenue	-424	-	-	-424
Insurance service expenses: Incurred expenses	-	-156	500	344
Insurance service expenses: Loss on Onerous Contracts	-	190	-	190
Cash Outflows	-	-	-500	-500
Closing Balance	1024	(199)	-	1223

• The SAR for Year 2 is calculated as Opening LC / Opening FCF at time 2 i.e. (146/543) = 26.84%

Subsequent Measurement (Year 3 – Scenario B)



Roll forward of ICL from Year 2 to Year 3

In Year 3, all events occur as expected in Year 2.

Particulars	Estimates of the present value of future cash flows	Risk adjustment for non-financial risk	Contractual Service Margin	Insurance Contract Liability
Opening Balance	1143	80	-	1223
Changes related to future service: New Contracts	-	-	-	-
Cash inflows	-	-	-	-
Insurance finance expense	57	-	-	57
Changes related to current service	-	-80	-	-80
Cash Outflows	-1200	_	-	-1200
Closing Balance	-	-	-	-

Loss Component Tracking (Year 3 – Scenario B)



Roll forward of Loss Component from Year 2 to Year 3

Particulars	Liability for remaining coverage, excluding LC	Loss component	Liability for incurred claims	Insurance Contract Liability
Opening Balance	1024	199	-	1223
Cash inflows	-	-	-	-
Insurance finance expense	48	9	-	57
Insurance Revenue	-1072	-	-	-1072
Insurance service expenses: Incurred expenses	-	-208	1200	992
Insurance service expenses: Loss on Onerous Contracts	-	-	-	-
Cash Outflows	-	-	-1200	-1200
Closing Balance	-	-	-	-

 The SAR for Year 3 is calculated as Opening LC / Opening FCF at time 3 i.e. (199/1223) = 16.29%



Profit and Loss for Year 2 and Year 3 – Scenario B

	Year 2	Year 3
Particulars	Amount	Amount
Insurance Revenue	424	1072
-Release of CSM	-	-
-Release of RA	59	67
-Expected Claims and Expenses at the beginning of the period	366	1005
-Insurance Contract Acquisition Cashflows	-	-
Insurance Service Expenses	-535	-992
-Actual Claims	-500	-1200
-Incurred Claims and Benefits	-	-
-Insurance Contract Acquisition Cashflows	-	-
-Loss on Onerous Contracts	-190	-
-Reversal of Loss	156	208
Insurance Service Result (A)	-110	80
Investment Income	-	-
Insurance Finance Income/(Expenses)	-69	-57
-Liability for Remaining Coverage	-51	-48
-Financing Component of LC	-19	-9
Insurance Finance Result (B)	-69	-57
Profit/Loss for the year (A+B)	-180	23

Subsequent Measurement where Profitable becomes Onerous



When profitable contract becomes loss making:

- First adjust changes in FCF through CSM, till the CSM becomes zero.
- Thereafter, contracted treated as Onerous and excess loss recognised in P&L immediately.
- Establish LC equal to the value of the remaining changes in FCF relating to future service.

Agenda



- What are Onerous Contracts?
- How to identify a group of onerous contracts?
- Measurement of group of Onerous contracts
 - Initial Measurement
 - Subsequent Measurement
- Practical challenges / other considerations

Practical Considerations



Particulars	Consideration	
Type of products likely to be Onerous either at Inception or subsequent measurement	 Contracts profitable only after cross subsidy between channels, age / term combinations, variants etc. 	
	Products profitable only after reinsurance credit	
	• Lapse supported products where actual experience may have been different from expected	
	• Term plans with higher than expected mortality experience	
Determining group of Onerous	Use of existing profitability metrics (traditional vs. market consistent metrics)	
	Need to adapt metrics to IFRS 17 requirements	
Impact of yield curve changes	 General Model products profitable at inception – impact of change in yield curve on P&L and does not make group onerous 	
	 Products onerous at inception – change in yield curve may impact degree of onerousness 	
Understanding P&L volatility	 Difference in treatment of profitable contracts vs. loss making Movement from Onerous to profitable and vice versa may introduce considerable volatility 	

Other Considerations / Points



Particulars	Consideration	
Relief available for Quota share reinsurance	• If the underlying contract is covered via a proportionate reinsurance contract, i.e. quota share treaty, the entity can take the credit of reinsurance recoveries on such onerous contracts at initial recognition or when onerous contracts are added to the group, by multiplying the % of recoveries to be received to the Loss on contracts on that date to reduce the onerousness flowing to the Profit and Loss.	
Measurement for contracts with direct participation	No change in treatment of Onerous contract	
	 Companies to consider whether to allow impact of change in underlying in defining systematic allocation ratios 	
Group / subsidiary reporting	 Differences between group and subsidiary in defining the level at which onerousness should be tested / assumption to be used. 	
Expense allocation	• Current vs. structural cost in IFRS 17 test of onerousness?	



Thank you

Any Questions?