2nd Capacity Building Seminar on IFRS 17

Hotel Sea Princess

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IFRS 17 cash flow illustration for a Non Participating Savings product: General Measurement Model

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Agenda

- Background and key definitions
- Non-onerous contract: Illustrative example on preparing P&L
- Sensitivity of the P&L to various parameters
- Treatment of onerous contract

Background: IFRS 17

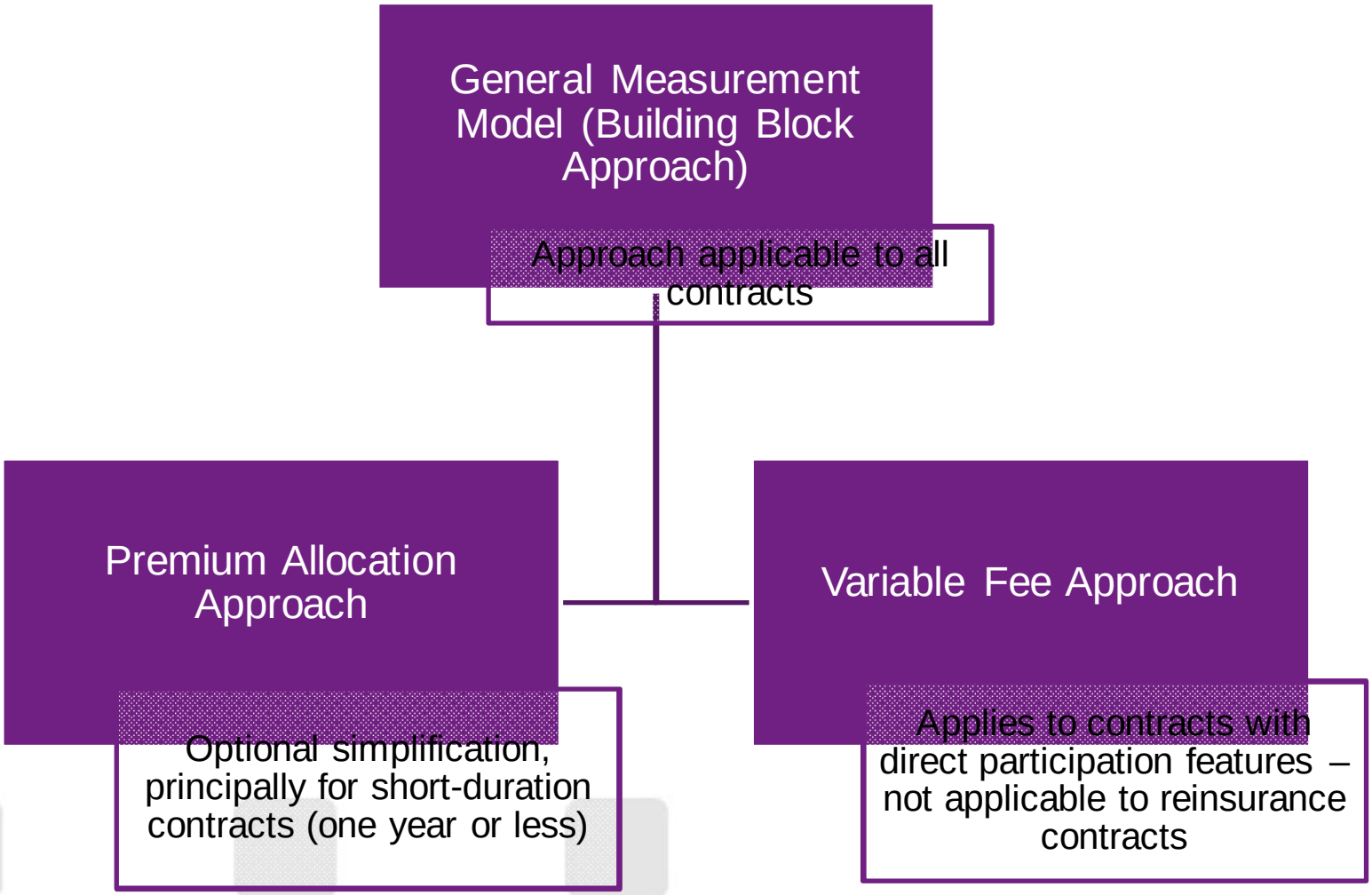
- In May 2017, the International Accounting Standards Board (IASB) issued the standard, IFRS 17 Insurance Contracts, with a proposed effective date of 1 January 2021. The effective implementation date for India at present is 1 April 2020.

- IFRS 17 is the **first serious attempt** to produce a **single global accounting standard** covering insurance contracts with a consistent measurement basis.

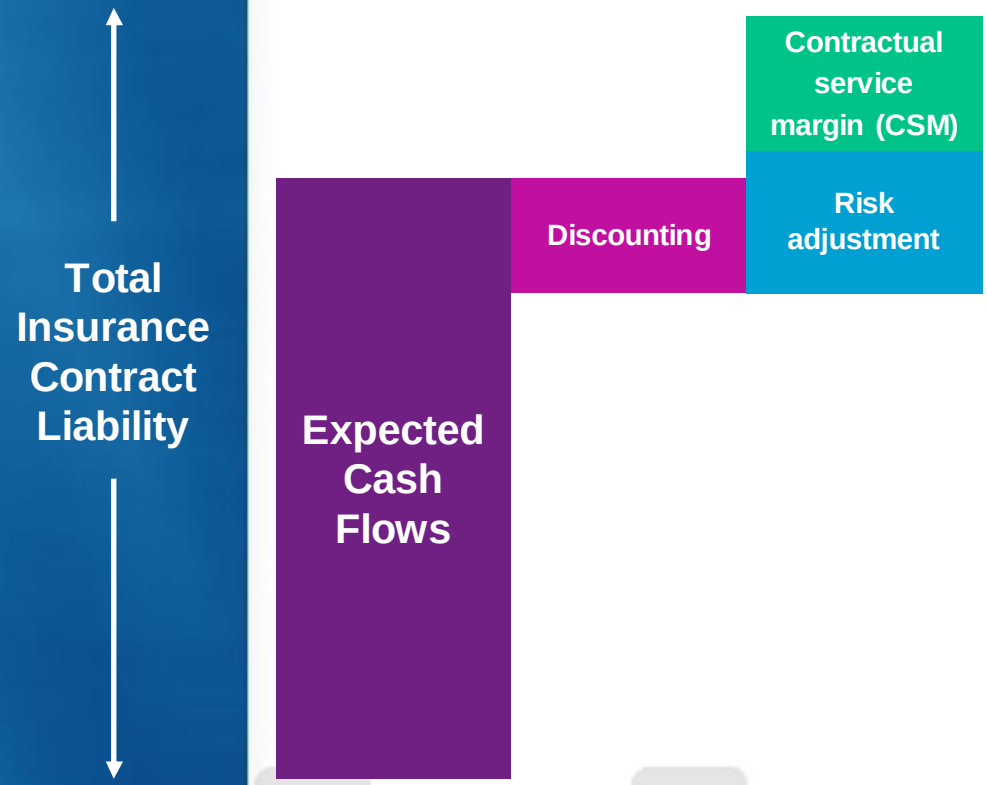
- IFRS 17 is a **principle-based standard** – allowing an entity to make several choices. Therefore, multiple IFRS 17 compliant P&L's are possible at an entity level.

- IFRS 17 is a **significant challenge** to the insurance industry across the **entire data, valuation, accounting and reporting chain**.

Measurement models



General Measurement Model (Building Block Approach)



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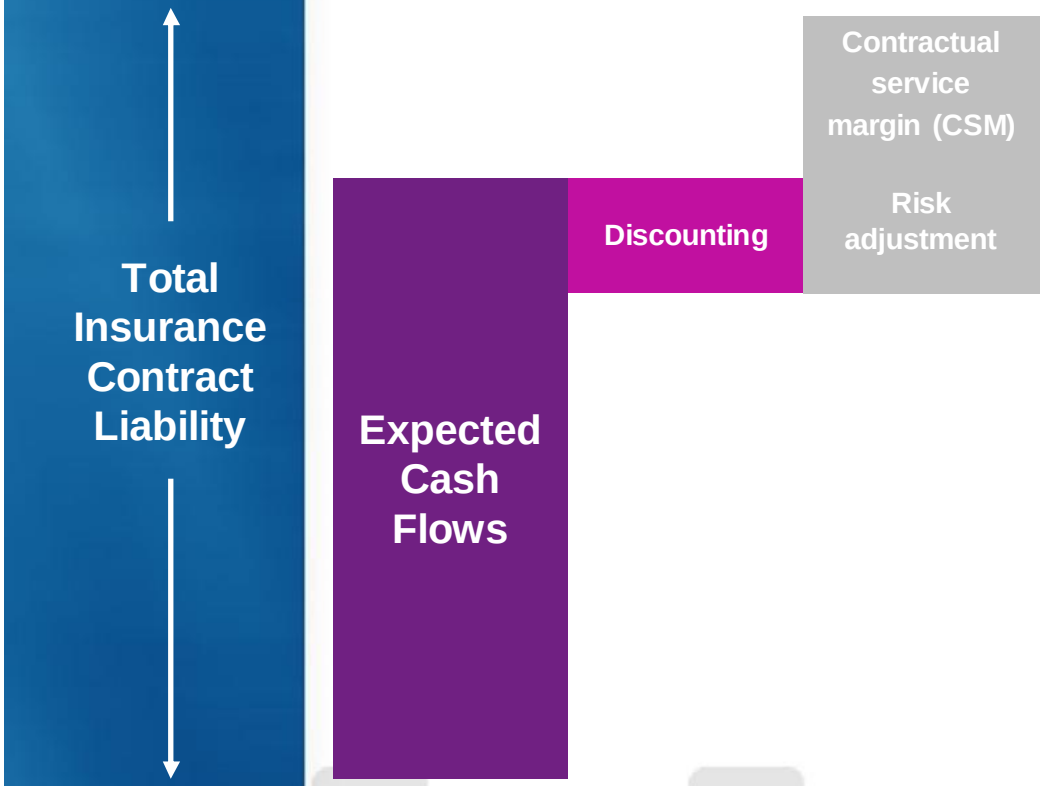


Block 1

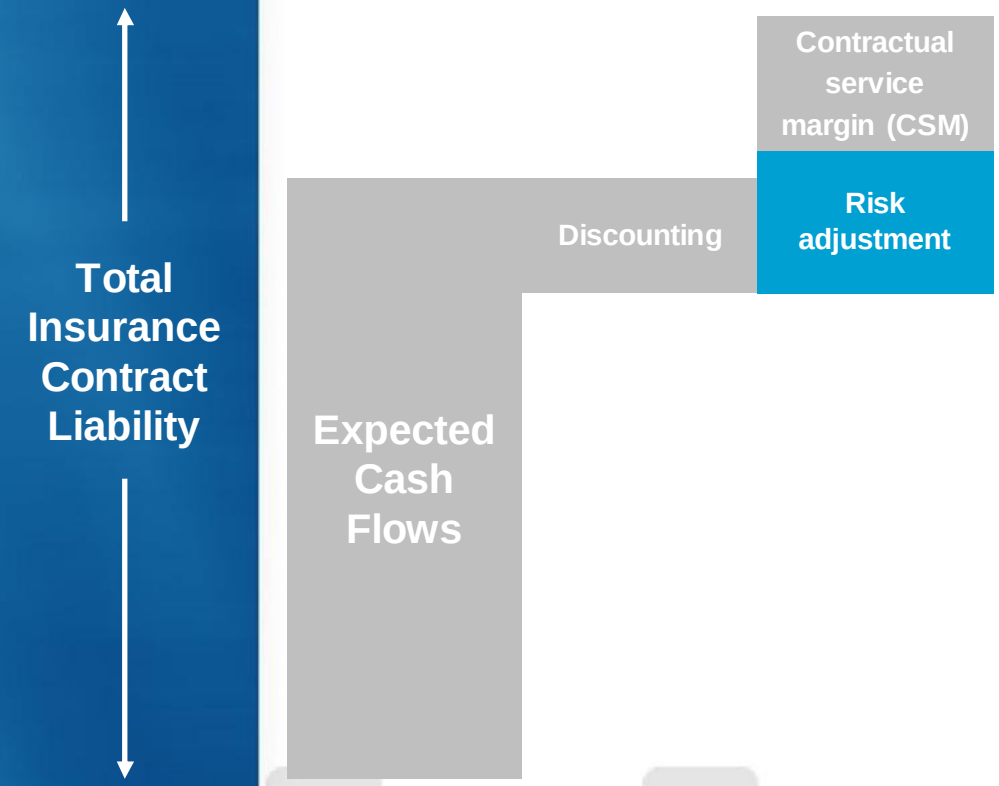
- **Present value of future cash flows**: estimate the future cash flows of a contract within the contract boundary; and adjust for time value:

  Present value of cash outgoes – Present value of cash income

- *Incorporate, in an **unbiased way**, all reasonable and supportable information available without undue cost or effort about the **amount, timing and uncertainty of those future cash flows**. To do this, an entity shall estimate the expected value (i.e. the **probability-weighted mean**) of the full range of possible outcomes*

- *Adjust to reflect the **time value of money** and the financial risks related to the future cash flows, to the extent that the financial risks are not included in the estimates of the future cash flows*

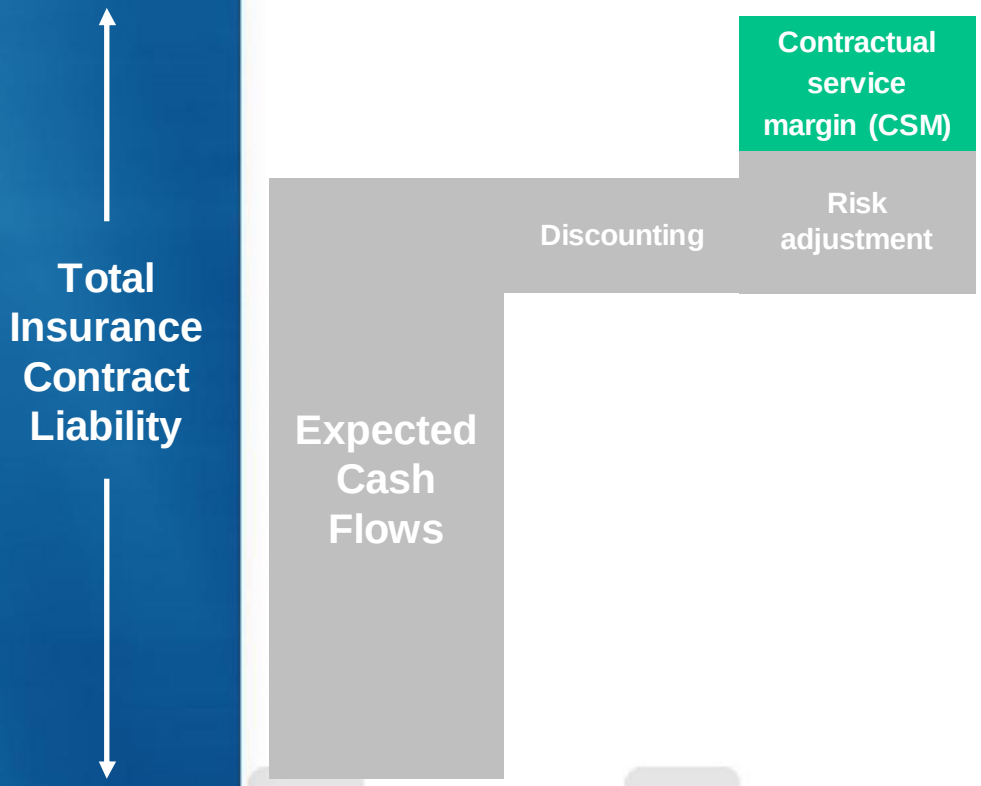
General Measurement Model (Building Block Approach)



Block 2

- *Reflects the compensation that the **entity** requires for bearing the uncertainty about the amount and timing of the cash flows that arises from **non-financial risks***

General Measurement Model (Building Block Approach)



Block 3

- Quantifies **unearned profit** insurer expects to earn as it fulfils contract
- **Ensures no gain at initial recognition:**

i.e. -(Present Value of Future Cash flows + Risk Adjustment)

- Allocated over coverage period
- Cannot be negative.

Key definitions (1)

Group of insurance contracts

- A set of insurance contracts resulting from the division of a **portfolio** of insurance contracts into, at a minimum, contracts written within a period of **no longer than one year** and that, at initial recognition:
- (a) are onerous, if any; (b) have no significant possibility of becoming onerous subsequently, if any; or (c) do not fall into either (a) or (b), if any.

Onerous contract

- An insurance contract is onerous at the date of initial recognition if the fulfilment cash flows allocated to the contract, any previously recognized acquisition cash flows and any cash flows arising from the contract at the date of initial recognition in total are a **net outflow**.

Loss component

- Represents the amount of **loss on the contract** (just as CSM represents the unearned profit)
- Recognized immediately in profit and loss as soon as contract turns onerous
- Excluded from determination of insurance revenue

Key definitions (2)

Institute of Actuaries of India

Coverage units

- Profit or loss recognized in a period is dependent on the number of coverage units allocated to the period.
- The number of coverage units in a group is the **quantity of coverage** provided by the contracts in the group, determined by considering for each contract the quantity of the **benefits** provided under a contract and its expected **coverage duration**.

Investment component

- The **amounts** that an insurance contract requires the entity to **repay** to a policyholder **even if an insured event does not occur**.
- Entity shall separate from a host insurance contract an investment component if, and only if, that investment component is **distinct**. The entity shall apply IFRS 9 to account for the separated investment component

IFRS 17: A typical P&L statement

Components of a P&L statement	
Insurance service revenue	**A**
CSM recognized for services provided	
Change in risk adjustment for non-financial risk	
*Release of **expected** incurred claims and other insurance service expenses*	
Recovery of insurance acquisition cash flows	
Insurance service expense	**B**
***Incurred** claims and other insurance service expenses*	
Loss and reversal on onerous contracts	
Amounts attributed to insurance acquisition cash flows	
Insurance service result	**C = A + B**
Finance result	**D**
Investment Income	
Insurance finance expense	
Profit (Loss)	**E = C + D**

Illustrative example:
General Measurement Model

Product details

Product features					
Product type	Non-participating endowment				
Term	5 year regular pay product				
Premium	INR 17,250 payable annually				
Sum Assured	INR 100,000 : payable on death and maturity				
Surrender value:	1	2	3	4	5
	0	20,000	42,000	72,000	100,000
Commission rate	1	2	3	4	5
	10%	7.5%	5%	5%	5%

Projection assumptions	1	2	3	4	5
# of policies in group at initial recognition	100 policies				
Interest rate (discount rate)	8% p.a. throughout				
# of deaths	1	1	1	1	1
# of surrenders	20	12	10	5	0
Insurance acquisition expense	15% of first year premium				
Other service expenses	INR 500 per policy, inflating at 5% p.a.				
Risk adjustment (as % of PVCF)	5%	0.10%	0.05%	0.04%	0.03%

Product cash flows

Expected cash flows

- 100 identical contracts are assumed to be issued on the same date.
- All contracts are expected to behave identically – therefore, can be assumed to be in the **same group** without need for additional testing.
- The cash flows for each contract are projected using the set of assumptions defined previously and aggregated.
- **Reinsurance is not considered**: accounted for separately under IFRS 17

Year	No. of pols (end)	Premium (+)	Commission (-)	Acquisition expense (-)	Other expense (-)	Death Outgo (-)	Surrender Outgo (-)	Maturity Outgo (-)	Net Cash flow (outgo less income)
1	79	1,725,000	172,500	258,750	50,000	100,000	0	0	(1,143,750)
2	66	1,362,750	102,206	0	41,475	100,000	240,000	0	(879,069)
3	55	1,138,500	56,925	0	36,383	100,000	420,000	0	(525,193)
4	49	948,750	47,438	0	31,835	100,000	360,000	0	(409,478)
5	48	845,250	42,263	0	29,780	100,000	0	4,800,000	4,126,792

General Measurement Model: Illustration

Profit & Loss account

Scenario: Experience over the years is consistent with the assumptions

Components of a P&L statement	1	2	3	4	5
Insurance service revenue	**236,147**	**193,140**	**155,059**	**114,866**	**85,465**
CSM recognized for services provided	15,638	14,109	12,699	12,218	12,926
Change in risk adjustment for non-financial risk	1,684	55	62	124	941
Release of expected incurred claims and other insurance service expenses	150,000	121,475	94,383	59,835	29,780
Recovery of insurance acquisition cash flows	68,826	57,500	47,917	42,689	41,818
Insurance service expense	**(218,826)**	**(178,975)**	**(142,299)**	**(102,524)**	**(71,598)**
Incurred claims and other insurance service expenses	(150,000)	(121,475)	(94,383)	(59,835)	(29,780)
Loss and reversal on onerous contracts	0	0	0	0	0
Amounts attributed to insurance acquisition cash flows	(68,826)	(57,500)	(47,917)	(42,689)	(41,818)
Insurance service result	**17,321**	**14,165**	**12,760**	**12,342**	**13,867**
Finance result	**229**	**95**	**90**	**85**	**75**
Investment Income	99,500	195,581	266,503	314,753	363,996
Insurance finance expense	(99,271)	(195,487)	(266,413)	(314,668)	(363,920)
Profit (Loss)	**17,550**	**14,259**	**12,850**	**12,427**	**13,943**

General Measurement Model: Illustration

Initial recognition

At initial recognition - cash flow projection takes into account first premium; and insurance acquisition cash flows.

Year	Expected cash flows	Time value at 8% p.a. →	Present Value of cash flows	+	Risk Adjustment	=	Unearned profit
1	(1,143,750)		(57,300)		2,865		54,435
2	(879,069)		1,181,366		1,181		
3	(525,193)		2,252,470		1,126		
4	(409,478)		3,041,475		1,065		
5	4,126,792		3,763,829		941		

Note: Calculated as % of PVCF

- **Unearned profit > 0 ; therefore, group of contracts is non-onerous**
- **CSM at initial recognition = 54,435** Store this value!!

General Measurement Model: Illustration

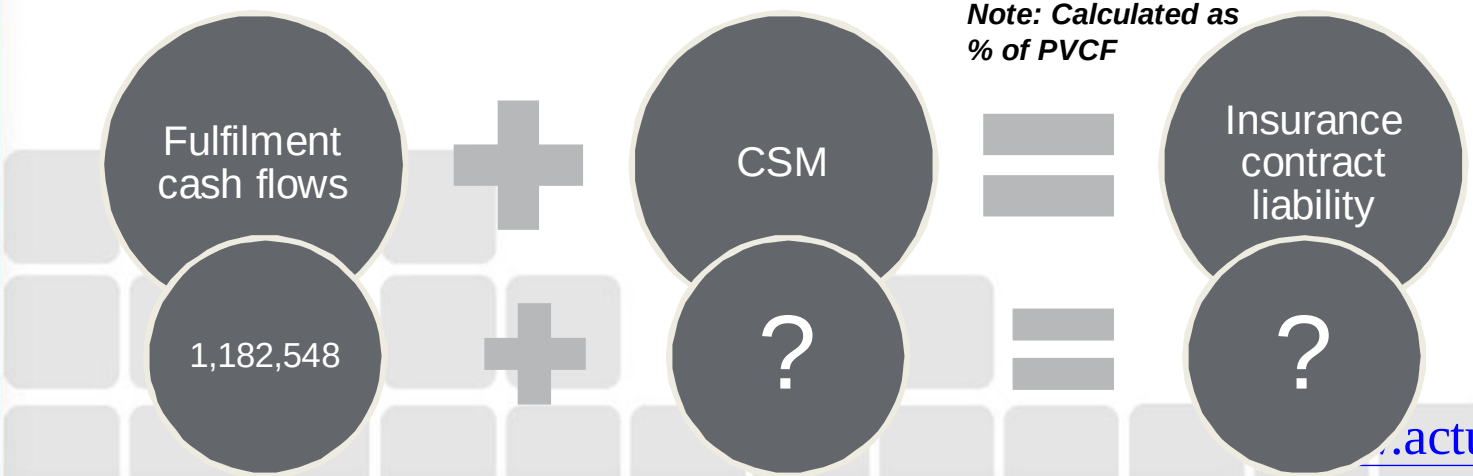
End of Year 1: Insurance Contract Liabilities

Scenario:

- Experience over the year is consistent with the assumptions
- Projection assumptions remain unchanged from those at initial recognition

Year	Expected cash flows	Time value at 8% p.a.	Present Value of cash flows		Risk Adjustment		Fulfilment cash flow
2	(879,069)	→	1,181,366	+	1,181	=	1,182,548
3	(525,193)		2,252,470		1,126		
4	(409,478)		3,041,475		1,065		
5	4,126,792		3,763,829		941		

Note: Calculated as % of PVCF



General Measurement Model: Illustration

End of Year 1: Calculation of CSM

- CSM at start of period
- \+ CSM for new contracts
- \+ Interest at locked in rate
- +/- Changes in cash flows
- +/- Currency exchange
- \- CSM allocated to period
- CSM at end of period

Changes in cash flows:

- Experience adjustment for premium received
- Changes in estimates of cash flows relating to future service
- Difference between expected and actual investment component paid in the period
- Change in risk adjustment for future service

- CSM cannot be negative/loss reversal
- Allocation based on coverage units
- Profit not yet recognised

General Measurement Model: Illustration

End of Year 1: Calculation of CSM

	CSM at start of period	0
+	CSM for new contracts	54,435
+	Interest at locked in rate	8% x 54,435 = 4,355
+-	Changes in cash flows	
+/-	Currency exchange	
-	CSM allocated to period	
	CSM at end of period	

Remember – we had stored this value

Discount rate at initial recognition was 8%

- Experience adjustment for premium received
- Changes in estimates of cash flows relating to future service
- Difference between expected and actual investment component paid in the period
- Change in risk adjustment for future service

Expected = Actual

General Measurement Model: Illustration

End of Year 1: Calculation of CSM

	CSM at start of period	0
+	CSM for new contracts	54,435
+	Interest at locked in rate	8% x 54,435 = 4,355
+-	Changes in cash flows	0
+/-	Currency exchange	0
-	CSM allocated to period	15,638
	CSM at end of period	

CSM before allocation = 58,789

Coverage unit: Death benefit in-force

Year	No. of pols		Death benefit in-force		CSM release %	Expected CSM release amount
1	79		7,900,000	=	27%	15,638
2	66	Σ	6,600,000		30%	13,064
3	55		5,500,000		36%	12,136
4	49		4,900,000		51%	12,168
5	48		4,800,000		100%	13,846

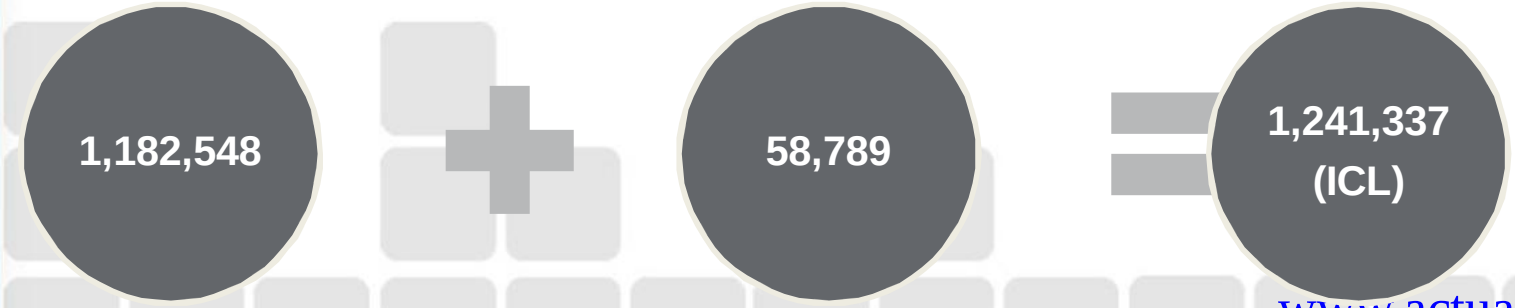
General Measurement Model: Illustration

End of Year 1: Calculation of CSM

	CSM at start of period	0
+	CSM for new contracts	54,435
+	Interest at locked in rate	8% x 54,435 = 4,355
+-	Changes in cash flows	0
+/-	Currency exchange	0
-	CSM allocated to period	15,638
	CSM at end of period	43,152

CSM before allocation = 58,789

Coverage unit: Death benefit in-force



General Measurement Model: Illustration

Profit & Loss account

Scenario: Experience over the years is consistent with the assumptions

Components of a P&L statement	Year 1	
Insurance service revenue	**236,147**	
CSM recognized for services provided	15,638	✓
Change in risk adjustment for non-financial risk	1,684	= 2,865 – 1,181
Release of expected incurred claims and other insurance service expenses	150,000	
Recovery of insurance acquisition cash flows	68,826	
Insurance service expense	**(218,826)**	
Incurred claims and other insurance service expenses	(150,000)	
Loss and reversal on onerous contracts	0	
Amounts attributed to insurance acquisition cash flows	(68,826)	
Insurance service result	**17,321**	
Finance result	**229**	
Investment Income	99,500	
Insurance finance expense	(99,271)	
Profit (Loss)	**17,550**	

Based on initial projection

Year	RA
1	2,865
2	1,181
3	1,126
4	1,065
5	941

General Measurement Model: Illustration

Profit & Loss account

Release of expected incurred claims and other insurance service expenses

Incurred claims and other insurance service expenses

	Premium (+)	Commission (-)	Acquisition expense (-)	Other expenses (-)	Insurance component (-)	Investment component (-)
Expected (E)	1,725,000	172,500	258,750	50,000	100,000	0
Actual (A)	1,725,000	172,500	258,750	50,000	100,000	0
A - E	0	0	0	0	0	0

In year 1, as surrender benefit is nil, insurance component = death benefit

General Measurement Model: Illustration

Profit & Loss account

Scenario: Experience over the years is consistent with the assumptions

Components of a P&L statement	Year 1	
Insurance service revenue	**236,147**	
CSM recognized for services provided	15,638	✓
Change in risk adjustment for non-financial risk	1,684	✓
Release of expected incurred claims and other insurance service expenses	150,000	✓
Recovery of insurance acquisition cash flows	68,826	
Insurance service expense	**(218,826)**	
Incurred claims and other insurance service expenses	(150,000)	✓
Loss and reversal on onerous contracts	0	
Amounts attributed to insurance acquisition cash flows	(68,826)	
Insurance service result	**17,321**	
Finance result	**229**	
Investment Income	99,500	
Insurance finance expense	(99,271)	
Profit (Loss)	**17,550**	

Assumed to amortize in line with CSM.

= 27% x 258,750

An entity shall determine insurance revenue related to insurance acquisition cash flows by allocating the portion of the premiums that relate to recovering those cash flows to each reporting period in a systematic way on the basis of the passage of time.

An entity shall recognise the same amount as insurance service expenses.

General Measurement Model: Illustration

Profit & Loss account

Scenario: Experience over the years is consistent with the assumptions

Components of a P&L statement	Year 1	
Insurance service revenue	**236,147**	✓
CSM recognized for services provided	15,638	✓
Change in risk adjustment for non-financial risk	1,684	✓
Release of expected incurred claims and other insurance service expenses	150,000	✓
Recovery of insurance acquisition cash flows	68,826	✓
Insurance service expense	**(218,826)**	✓
Incurred claims and other insurance service expenses	(150,000)	✓
Loss and reversal on onerous contracts	0	✓
Amounts attributed to insurance acquisition cash flows	(68,826)	✓
Insurance service result	**17,321**	✓
Finance result	**229**	
Investment Income	99,500	
Insurance finance expense	(99,271)	
Profit (Loss)	**17,550**	

General Measurement Model: Illustration

Profit & Loss account

Investment income:

= income earned on asset at start of period and beginning of period cash flows

= (1,725,000 – 172,500 – 258,750 – 50,000) x 8%

= 99,500

	Premium (+)	Commission (-)	Acquisition expense (-)	Other expenses (-)	Insurance component (-)	Investment component (-)
Expected (E)	1,725,000	172,500	258,750	50,000	100,000	0
Actual (A)	1,725,000	172,500	258,750	50,000	100,000	0
A - E	0	0	0	0	0	0

Insurance finance expense

= Income on liability of effect of time value of money and effect of financial risk

= As discount rate is same as earned rate, this will represent unwind of discount rate on opening liability and cash flows

= (-57,300 + 54,435) x 8% + 99,500 = 99,271

General Measurement Model: Illustration

Profit & Loss account

Scenario: Experience over the years is consistent with the assumptions

Components of a P&L statement	Year 1	
Insurance service revenue	**236,147**	✓
CSM recognized for services provided	15,638	✓
Change in risk adjustment for non-financial risk	1,684	✓
Release of expected incurred claims and other insurance service expenses	150,000	✓
Recovery of insurance acquisition cash flows	68,826	✓
Insurance service expense	**(218,826)**	✓
Incurred claims and other insurance service expenses	(150,000)	✓
Loss and reversal on onerous contracts	0	✓
Amounts attributed to insurance acquisition cash flows	(68,826)	✓
Insurance service result	**17,321**	✓
Finance result	**229**	✓
Investment Income	99,500	✓
Insurance finance expense	(99,271)	✓
Profit (Loss)	**17,550**	✓

Difference arises as insurance finance expense has not been determined for risk adjustment.

IFRS 17 allows you to make this choice

General Measurement Model: Illustration

Profit (or loss) is ultimately = Change in assets less change in liabilities

Typical components for an AoM	These can also be presented as …….	Fulfilment cash flows	CSM	P&L impact
Opening value	**Opening value**	**+**	**+**	
+ New contracts	Fulfilment cash flows from new contracts at initial recognition	+	-	Nil
+ Unwind of discount rate	Interest on opening value at locked-in rate	+	+	Insurance finance expense
	Difference in interest between beginning of period discount rate and locked in rate on opening value	+		Insurance finance expense
- Cash flows expected to occur in the inter-valuation period	Actual outgo less income	-		See experience variance line
	Experience variance: Actual less Expected for – premiums, investment component and acquisition expenses	+	-	Nil
	Experience variance: Actual less Expected for – insurance component and other expenses	+		Insurance service revenue: expected CF Insurance service expense: actual CF
+ Impact of change in non-economic assumptions + change in future cash flows due to experience variance	Change in PV of future cash flows (on locked-in interest rate)	+	-	Nil
+ Impact of change in economic assumptions	Impact of change in end of period discount rate assumption	+		Insurance finance expense
	Amortisation of CSM		-	Insurance service revenue
Closing value	**Closing value**	**=**	**=**	

P&L Scenarios

General Measurement Model: Illustration

Year 2 – Statement of profit and loss

Components of a P&L statement	Year 2
Insurance service revenue	**193,140**
CSM recognized for services provided	14,109
Change in risk adjustment for non-financial risk	55
Release of expected incurred claims and other insurance service expenses	121,475
Recovery of insurance acquisition cash flows	57,500
Insurance service expense	**(178,975)**
Incurred claims and other insurance service expenses	(121,475)
Loss and reversal on onerous contracts	0
Amounts attributed to insurance acquisition cash flows	(57,500)
Insurance service result	**14,165**
Finance result	**95**
Investment Income	195,581
Insurance finance expense	(195,487)
Profit (Loss)	**14,259**

General Measurement Model: Illustration

Insurance and investment component

Definition: *The amounts that an insurance contract requires the entity to repay to a policyholder even if an insured event does not occur.*

Our understanding: This amount implicitly belongs to the policyholder and therefore should not be included as revenue. This includes any amounts paid at maturity or surrender, as well as the amount of cash surrender value that is implicit in the amounts paid when the insured event happens.

Year	Surrender Value/ Maturity value		Investment component	Insurance component		
1	0	=	0	Death benefit ***less*** Investment component	=	100,000
2	20,000	=	20,000		=	80,000
3	42,000	=	42,000		=	58,000
4	72,000	=	72,000		=	28,000
5	100,000	=	100,000		=	-

General Measurement Model: Illustration

Subsequent measurement – Scenario 1

of deaths in year 2 is 1 more than expected

	Expected	Actual
No of Deaths	1	2
No of Surrenders	12	12
Premium (+)	1,362,750	1,362,750
Commission (-)	102,206	102,206
Renewal expenses (-)	41,475	41,475
PV Future cash flows	2,252,470	2,217,089
Insurance component (-)	80,000	160,000
Investment component (-)	260,000	280,000

Total outgo = death outgo + surrender outgo = 440,000

This can also be expressed as sum of investment component outgo + insurance component outgo; where

- **Investment component outgo** = Investment component x (# deaths + # surrenders) = 20,000 x 14 = 280,000
- **Insurance component outgo** = Insurance component x # deaths = 80,000 x 2 = 160,000

General Measurement Model: Illustration

Subsequent measurement – Scenario 1

	CSM movement	Notes
Opening CSM	43,152	= CSM at the end of year 1
Interest (on locked-in rate)	3,452	= 8% x Opening CSM
Changes in the PV of future cash flow	35,381	= 2,252,470 - 2,217,089
Changes related to risk adjustment	18	= 0.05% * change in PV CFs
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(20,000)	= 260,000 – 280,000
CSM before allocation to Profit and Loss	**62,002**	= sum of the above
CSM allocated to Profit and Loss	(18,771)	= CSM before allocation x release factor
Carrying amount of CSM	**43,231**	

General Measurement Model: Illustration

Subsequent measurement – Scenario 1

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	35,381
Changes related to risk adjustment	18
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(20,000)
CSM before allocation to Profit and Loss	**62,002**
CSM allocated to Profit and Loss	(18,771)
Carrying amount of CSM	**43,231**

	Risk adjustment
Opening	1,181
Changes related to future service	(18)
Changes related to current service	(55)
Carrying amount	1,109

General Measurement Model: Illustration

Subsequent measurement – Scenario 1

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	35,381
Changes related to risk adjustment	18
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(20,000)
CSM before allocation to Profit and Loss	**62,002**
CSM allocated to Profit and Loss	(18,771)
Carrying amount of CSM	**43,231**

Coverage units
30%
25%
22%
22%

Revision to pattern of service provision (coverage units)

	Risk adjustment
Opening	1,181
Changes related to future service	(18)
Changes related to current service	(55)
Carrying amount	1,109

General Measurement Model: Illustration

Comparison – Scenario 1 Year 2 Statement of Profit and Loss

	Expected	Actual
Insurance service revenue	**193,140**	**197,802**
CSM recognized for services provided	14,109	18,771
Change in risk adjustment for non- financial risk.	55	55
Release of expected incurred claims and other insurance service expenses	121,475	121,475
Recovery of insurance acquisition cash flows	57,500	57,500
Insurance service expense	**(178,975)**	**(258,975)**
Incurred claims	(121,475)	(201,475)
Loss and reversal on onerous contracts		
Amounts attributed to insurance acquisition cash flows	(57,500)	(57,500)
Insurance service result	**14,165**	**(61,173)**
Finance result	**95**	**95**
Investment Income	195,581	195,581
Insurance finance expense	(195,487)	(195,487)
Profit (Loss)	**14,259**	**(61,079)**

Key Highlights:

- ✓ Change in CSM recognized in revenue
- × No change in Risk adjustment recognized in revenue
- ✓ Increase in insurance service expense
- × No change in Finance results

General Measurement Model: Illustration

Subsequent measurement – Scenario 2

- # of deaths in year 2 is 1 more than expected
- Future expectation of deaths in year 3 increased from 1 to 2.

	Expected	Actual
No of Deaths	1	2
No of Surrenders	12	12
Premium (+)	1,362,750	1,362,750
Commission (-)	102,206	102,206
Renewal expenses (-)	41,475	41,475
PV Future cash flows	2,252,470	2,258,465
Insurance component (-)	80,000	160,000
Investment component (-)	260,000	280,000

a change of 5,995

General Measurement Model: Illustration

Subsequent measurement – Scenario 2

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	(5,995)
Changes related to risk adjustment	(3)
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(20,000)
CSM before allocation to Profit and Loss	**20,606**
CSM allocated to Profit and Loss	(6,239)
Carrying amount of CSM	**14,368**

General Measurement Model: Illustration

Subsequent measurement – Scenario 2

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	Risk adjustment
Opening	1,181
Changes related to future service	3
Changes related to current service	(55)
Carrying amount	1,129

General Measurement Model: Illustration

Subsequent measurement – Scenario 2

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	(5,995)
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Carrying amount of CSM	**14,368**

Coverage units
31%
25%
22%
22%

Revision to pattern of service provision (coverage units)

	Risk adjustment
Opening	1,181
Changes related to future service	3
Changes related to current service	(55)
Carrying amount	1,129

General Measurement Model: Illustration

Comparison – Scenario 2 Year 2 Statement of Profit and Loss

	Expected	Actual
Insurance service revenue	**193,140**	**185,269**
CSM recognized for services provided	14,109	6,239
Change in risk adjustment for non- financial risk.	55	55
Release of expected incurred claims and other insurance service expenses	121,475	121,475
Recovery of insurance acquisition cash flows	57,500	57,500
Insurance service expense	**(178,975)**	**(258,975)**
Incurred claims	(121,475)	(201,475)
Loss and reversal on onerous contracts		
Amounts attributed to insurance acquisition cash flows	(57,500)	(57,500)
Insurance service result	**14,165**	**(73,706)**
Finance result	**95**	**95**
Investment Income	195,581	195,581
Insurance finance expense	(195,487)	(195,487)
Profit (Loss)	**14,259**	**(73,612)**

Key Highlights:

- ✓ Change in CSM recognized in revenue
- × No change in Risk adjustment recognized in revenue
- ✓ Increase in insurance service expense
- × No change in Finance results

General Measurement Model: Illustration

Subsequent measurement – Scenario 3

of surrenders are 3 more than expected

	Expected	Actual
No of Deaths	1	1
No of Surrenders	12	15
Premium (+)	1,362,750	1,362,750
Commission (-)	102,206	102,206
Renewal expenses (-)	41,475	41,475
PV Future cash flows	2,252,470	2,146,328
Insurance component (-)	80,000	80,000
Investment component (-)	260,000	320,000

General Measurement Model: Illustration

Subsequent measurement – Scenario 3

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	106,142
Changes related to risk adjustment	53
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(60,000)
CSM before allocation to Profit and Loss	**92,799**
CSM allocated to Profit and Loss	(28,095)
Carrying amount of CSM	**64,704**

General Measurement Model: Illustration

Subsequent measurement – Scenario 3

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	106,142
Changes related to risk adjustment	53
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	(60,000)
CSM before allocation to Profit and Loss	**92,799**
CSM allocated to Profit and Loss	(28,095)
Carrying amount of CSM	**64,704**

Coverage units
31%
25%
22%
22%

Revision to pattern of service provision (coverage units)

	Risk adjustment
Opening	1,181
Changes related to future service	(53)
Changes related to current service	(55)
Carrying amount	1,073

General Measurement Model: Illustration

Comparison – Scenario 3 Year 2 Statement of Profit and Loss

	Expected	Actual
Insurance service revenue	**193,140**	**207,125**
CSM recognized for services provided	14,109	28,095
Change in risk adjustment for non- financial risk.	55	55
Release of expected incurred claims and other insurance service expenses	121,475	121,475
Recovery of insurance acquisition cash flows	57,500	57,500
Insurance service expense	**(178,975)**	**(178,975)**
Incurred claims	(121,475)	(121,475)
Loss and reversal on onerous contracts		
Amounts attributed to insurance acquisition cash flows	(57,500)	(57,500)
Insurance service result	**14,165**	**28,150**
Finance result	**95**	**95**
Investment Income	195,581	195,581
Insurance finance expense	(195,487)	(195,487)
Profit (Loss)	**14,259**	**28,245**

Key Highlights:

- ✓ Change in CSM recognized in revenue
- × No change in Risk adjustment recognized in revenue
- × No change in insurance service expense
- × No change in Finance results

General Measurement Model: Illustration

Subsequent measurement – Scenario 4 – Interest rate change

Discount rate assumption lowered to 7% from 8% for all future years

	Expected	Actual
No of Deaths	1	1
No of Surrenders	12	12
Premium (+)	1,362,750	1,362,750
Commission (-)	102,206	102,206
Renewal expenses (-)	41,475	41,475
PV Future cash flows	2,252,470	2,354,485
Insurance component (-)	80,000	80,000
Investment component (-)	260,000	260,000

General Measurement Model: Illustration

Subsequent measurement – Scenario 4

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	-
Changes related to risk adjustment	(51)
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	-
CSM before allocation to Profit and Loss	**46,553**
CSM allocated to Profit and Loss	(14,094)
Carrying amount of CSM	**32,459**

General Measurement Model: Illustration

Subsequent measurement – Scenario 4

	CSM movement
Opening CSM	43,152
Interest (on locked-in rate)	3,452
Changes in the PV of future cash flow	-
Changes related to risk adjustment	(51)
Difference between expected and actual investment component paid in the period, premiums and acquisition expense	-
CSM before allocation to Profit and Loss	**46,553**
CSM allocated to Profit and Loss	(14,094)
Carrying amount of CSM	**32,459**

No change to pattern of service provision (coverage units)

	Risk adjustment
Opening	1,181
Changes related to future service	51
Changes related to current service	(55)
Carrying amount	1,177

General Measurement Model: Illustration

Comparison – Scenario 4 Year 2 Statement of Profit and Loss

	Expected	Actual
Insurance service revenue	**193,140**	**193,124**
CSM recognized for services provided	14,109	14,094
Change in risk adjustment for non- financial risk.	55	55
Release of expected incurred claims and other insurance service expenses	121,475	121,475
Recovery of insurance acquisition cash flows	57,500	57,500
Insurance service expense	**(178,975)**	**(178,975)**
Incurred claims	(121,475)	(121,475)
Loss and reversal on onerous contracts		
Amounts attributed to insurance acquisition cash flows	(57,500)	(57,500)
Insurance service result	**14,165**	**14,149**
Finance result	**95**	**(101,920)**
Investment Income	195,581	195,581
Insurance finance expense	(195,487)	(297,502)
Profit (Loss)	**14,259**	**(87,771)**

Key Highlights:

- ✓ Change in CSM recognized in revenue
- × No change in Risk adjustment recognized in revenue
- × No change in insurance service expense
- ✓ Change in insurance finance expense

The change in market value of assets will completely offset the insurance finance expense if the assets and liabilities are perfectly matched

Onerous contracts

Onerous contract

Initial recognition

- 100 identical contracts are assumed to be issued on the same date.
- All contracts are expected to behave identically – therefore, can be assumed to be in the **same group** without need for additional testing.
- The cash flows for each contract are projected using the set of assumptions defined previously and aggregated.
- **Reinsurance is not considered**: accounted for separately under IFRS 17
- **All features and assumptions are same as before, but acquisition expense is 20% of first year premium**

Year	No. of pols (end)	Premium (+)	Commission (-)	Acquisition expense (-)	Other expense (-)	Death Outgo (-)	Surrender Outgo (-)	Maturity Outgo (-)	Net Cash flow (outgo less income)
1	79	1,725,000	172,500	345,000	50,000	100,000	0	0	(1,057,500)
2	66	1,362,750	102,206	0	41,475	100,000	240,000	0	(879,069)
3	55	1,138,500	56,925	0	36,383	100,000	420,000	0	(525,193)
4	49	948,750	47,438	0	31,835	100,000	360,000	0	(409,478)
5	48	845,250	42,263	0	29,780	100,000	0	4,800,000	4,126,792

General Measurement Model: Illustration

Initial recognition

At initial recognition - cash flow projection takes into account first premium; and insurance acquisition cash flows.

Year	Expected cash flows	Time value at 8% p.a.	Present Value of cash flows		Risk Adjustment		Unearned profit
1	(1,057,500)		28,950	+	1,448	=	(30,398)
2	(879,069)		1,181,366		11,814		
3	(525,193)		2,252,470		16,894		
4	(409,478)		3,041,475		15,207		
5	4,126,792		3,763,829		9,410		

Note: Calculated as % of PVCF

- **Unearned profit < 0 ; therefore, group of contracts is onerous**
- **CSM at initial recognition = 0**
- **Loss component of 30,398 will be recognized in the year 1 P&L.**

In summary

Profit (or loss) is ultimately = Change in assets less change in liabilities

Typical components for an AoM	These can also be presented as …….	Fulfilment cash flows	CSM	P&L impact
Opening value	**Opening value**	**+**	**+**	
+ New contracts	Fulfilment cash flows from new contracts at initial recognition	+	-	Nil
+ Unwind of discount rate	Interest on opening value at locked-in rate	+	+	Insurance finance expense
	Difference in interest between beginning of period discount rate and locked in rate on opening value	+		Insurance finance expense
- Cash flows expected to occur in the inter-valuation period	Actual outgo less income	-		See experience variance line
	Experience variance: Actual less Expected for – premiums, investment component and acquisition expenses	+	-	Nil
	Experience variance: Actual less Expected for – insurance component and other expenses	+		Insurance service revenue: expected CF Insurance service expense: actual CF
+ Impact of change in non-economic assumptions + change in future cash flows due to experience variance	Change in PV of future cash flows (on locked-in interest rate)	+	-	Nil
+ Impact of change in economic assumptions	Impact of change in end of period discount rate assumption	+		Insurance finance expense
	Amortisation of CSM		-	Insurance service revenue
Closing value	**Closing value**	**=**	**=**	

Institute of Actuaries of India

Thank you