Nicholas Actuarial Solutions

IFRS 17 Webinar 2021 – Persatuan Aktuaris Indonesia

Measurements in IFRS 17 – General Insurance

Session 3 : Liability for Remaining Coverage (LRC) – Premium Allocation Approach (PAA)

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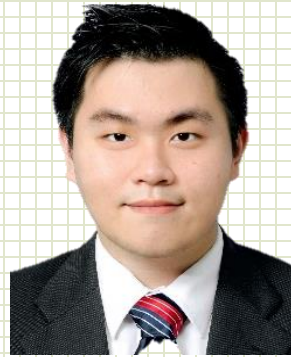
Presenters

All Sessions		Session 1	Session 2	Session 3

Nicholas Yeo
FIA FASM FSA FSAS
Founder & Actuary

Billy Tanuwijaya
Actuarial Analyst
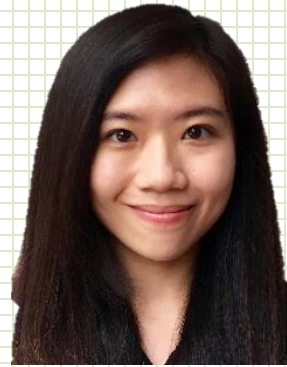
Kok Ming Wei
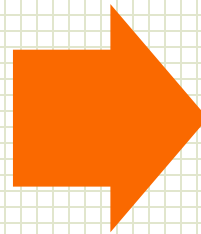**Actuarial Analyst**

Chong Wai Chung
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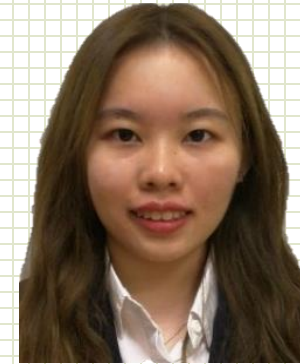
Jessie Leong
Actuarial Analyst

IFRS 17 (PSAK 74 Objective)

"Establishes principles for the recognition, measurement, presentation and disclosure of **insurance contracts**"

→

Replace the currently implemented **IFRS 4** (PSAK 62) starting in 2025

Comparing IFRS 4 & IFRS 17

Current (IFRS 4)	
Asset	Liability
Investment	Benefits reserve
Deferred acquisition costs	Unearned premium reserves
Insurance receivables (net of provision for insurance doubtful debts)	Claim liabilities
Reinsurance assets	Other payables

Future (IFRS 17)	
Asset	Liability
Investment	Liabilities for remaining coverage
Reinsurance contract assets	Liabilities for incurred claims
	Payables

IFRS 17 introduces single, revenue recognition principle to reflect insurance services provided/received (layman's term).

*This is an abridged version of Statement of Financial Position

What will happen in Day 1?

Change in expense treatment e.g. defer acquisition expenses
+$10

Market consistent adjustments e.g. discounting
+$5

Contractual Service Margin (Future Profit)
or
Loss Component (Future Losses)
-$30

Closing Balance
IFRS 4
Shareholder Equity
$100

Opening Balance
IFRS 17
Shareholder Equity
$85
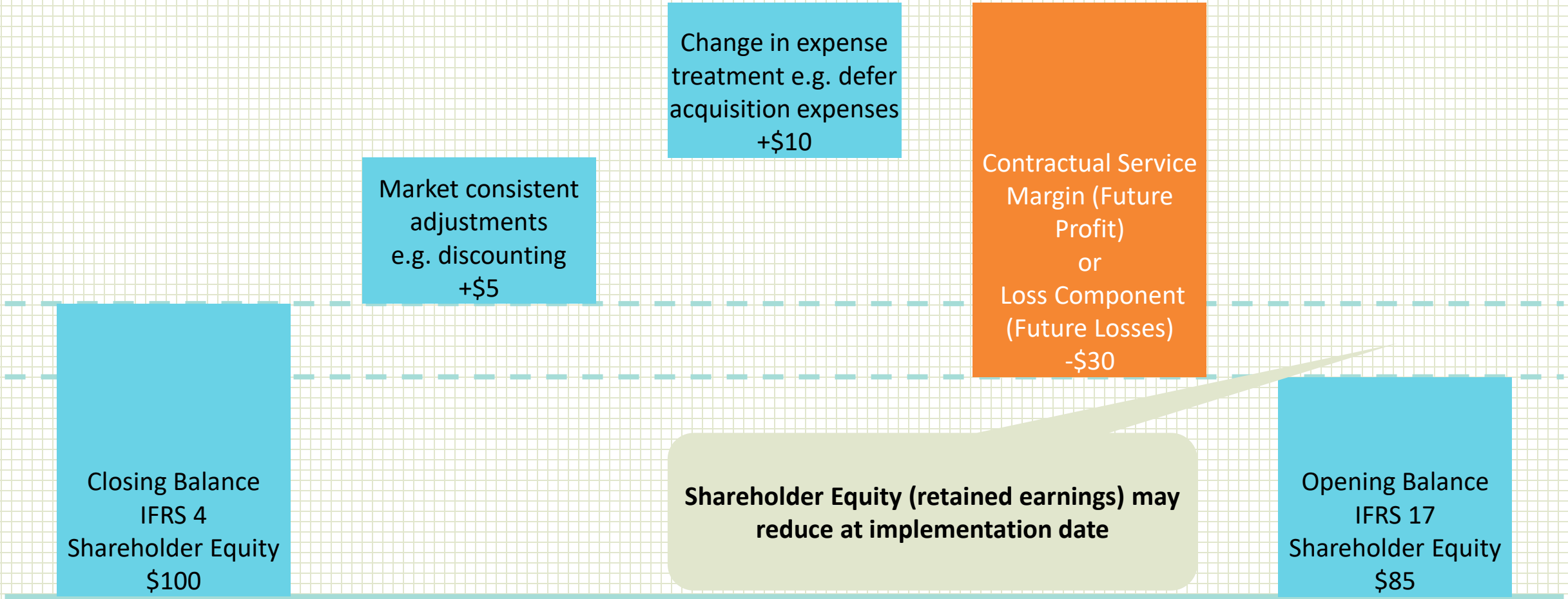
Shareholder Equity (retained earnings) may reduce at implementation date

What will happen in Year 1?

Net Investment Results
+$5

Other Operating Expenses
-$10

Income Tax Expenses
-$5

Insurance Service Results
+$15

Grouping may change underwriting results

Discounting may alter investment results

Expense overrun may become clearly identifiable

Tax treatment may change

Opening Balance IFRS 17 Shareholder Equity
$85

Closing Balance IFRS 17 Shareholder Equity
$90
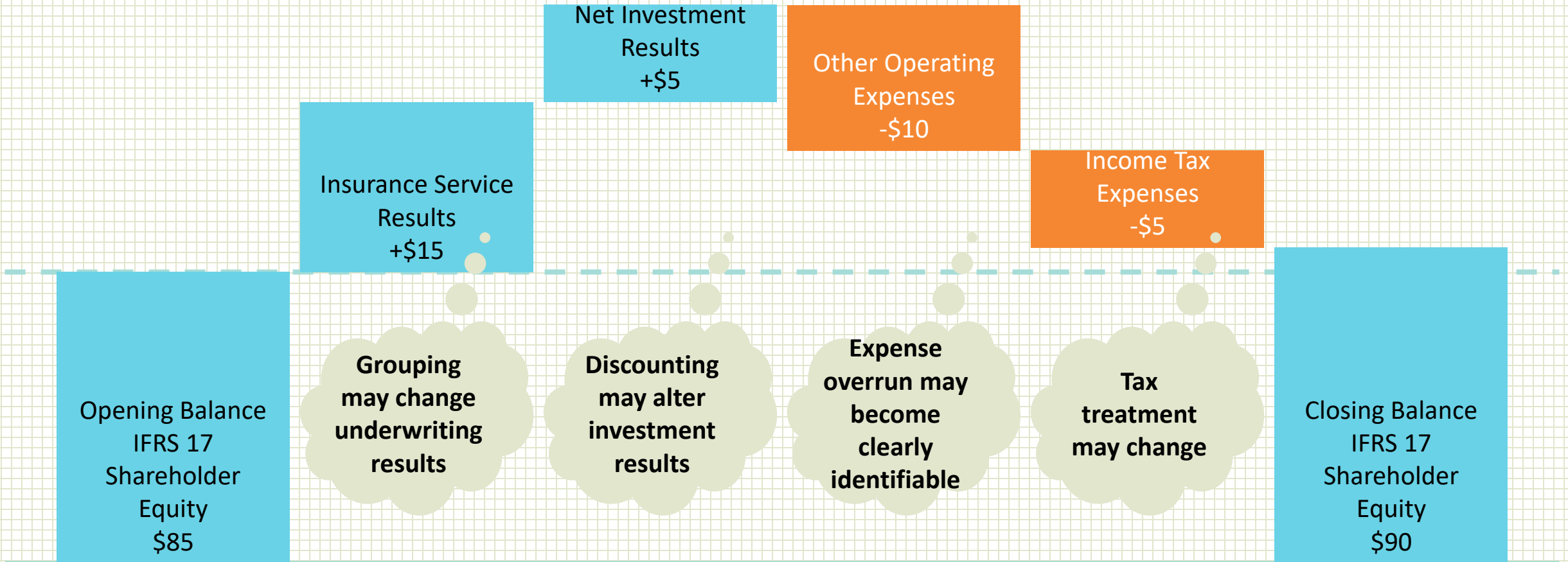
IFRS 17 Scope

Combination & Separation
- Combining several related contracts into 1 set of insurance contract OR separating components of an insurance contract and measuring them separately (e.g. investment/service component)

Level of Aggregation
- Division of a portfolio of insurance contracts by profitability (onerous/profitable) and issued year (1 year apart)

Recognition
- When to start recognizing insurance contracts for measurement

Measurement
- Measure the liability of insurance contracts (liability of incurred claims + liability of remaining coverage)

Modification & Derecognition
- How to treat an insurance contract with modified term AND how & when to derecognize an insurance contract

Presentation & Disclosure
- Present the measurement result & disclose the details in the financial statement

Webinar Focus →

Insurance Contract Liabilities Component

Insurance Contract Liabilities **=** (future events) LRC (Liabilities of Remaining Coverage) **+** (past events) LIC (Liabilities of Incurred Claims)

measured in 3 ways

GMM (General Measurement Model)

VFA (Variable Fee Approach) ❌

PAA (Premium Allocation Approach)

The default measurement model, expected to be applied to life insurance and non-life insurance contracts not eligible for the PAA.

A variation on the GMM for direct participating contracts. This typically includes unit linked insurance contracts.

Applicable to some short-term contracts, such as most non-life insurance contracts.

= Fulfilment Cash Flow + Risk Adjustment consisting of Case Reserve + IBNR

Session 3

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Measurement Components

Measurement Components	Session 1 LIC	Session 2 LRC GMM	Session 3 LRC PAA
Present Value of Future Cash Flow (PVFCF)	✓	✓	
Risk Adjustment (RA)	✓	✓	
Contractual Service Margin (CSM)		✓	
Loss Component (LC)		✓	✓
Insurance Revenue (IR)		✓	✓
Insurance Service Expense (ISE)	✓	✓	✓
Insurance Finance Income/Expense (IFIE)	✓	✓	✓

At the end of the webinar courses, participants shall be able to:

1. Calculate LIC
2. Prepare LIC Account

Session 1

3. Calculate LRC using GMM
4. Prepare LRC Account using GMM

Session 2

5. Calculate LRC using PAA
6. Perform PAA eligibility test
7. Prepare LRC Account using PAA

Session 3

n - a c t u a r i a l

LRC PAA Account for 1 Transaction Entry

Scenario 1 : Premium is received at inception (t=0).

Ultimate Loss Ratio	50%

Premium Register	
Entry	Premium
Date	1/1/2021
Amount	100

Cash Register	
Entry	Premium
Date	1/1/2021
Amount	100

Journal Entry				
Account Type	**Description**		**Debit**	**Credit**
As at 01.01.2021 :				
Asset	Cash			0
Liability	LRC		0	0
As at 30.06.2021:				
Asset	Cash			0
Liability	LRC		0	0
AND				
Revenue	Insurance Revenue		0	
Liability	LRC		0	0

LRC account (as at 01.01.2021)	
LRC Opening Balance (01.01.2021)	
Insurance Revenue	0
Cashflow	
Premium Received	
LRC Closing Balance	0

LRC account (as at 30.6.2021)	
LRC Opening Balance (30.06.2021)	
Insurance Revenue	
Cashflow	
Premium Received	
LRC Closing Balance	0

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Spreadsheet Samples (2)

LRC PAA Account for Whole Portfolio

LRC Account (01.01.2020 to 31.12.2020)	
LRC Opening Balance	-
Opening Balance	-
Insurance Revenue	
Current Service	-
Insurance Revenue	-
Insurance Finance Income or (Expense)	-
Interest Accretion	-
Change in Discount Rate	-
Actual Cash Flows	-
Premiums Received	-
LRC Closing Balance	-
Closing Balance	-

Journal Entry				
Account Type	**Description**	**Description 2**	**Debit**	**Credit**
_01.01.2020_				
Asset	Cash	Premiums Received		
Liability	LRC	Premiums Received		-
_31.12.2020_				
Revenue	Insurance Revenue	Change in Current Service PVFCF		
Liability	LRC	Change in Current Service PVFCF	. -	
Expense	Insurance Finance Expense	Interest Accretion		
Liability	LRC	Interest Accretion		-
Expense	Insurance Finance Expense	Change in Discount Rate		
Liability	LRC	Change in Discount Rate	-	

PAA Eligibility Test

Expected Cash Flow at Inception Discounted with "Lock-In" Rates											
Projection Year (from Inception)	Initial	1	2	3	4	5	6	7	8	9	10
Forward Rates		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Discounting Factor	1.0000	0.9615	0.9246	0.8890	0.8548	0.8219	0.7903	0.7599	0.7307	0.7026	0.6756
Future Cash Flow (FCF)	(9,000.00)	2,060.00	2,060.00	2,060.00	-	-	-	-	-	-	-
Risk Adjustment		412.00	412.00	412.00	-	-	-	-	-	-	-
PVFCF	(3,390.11)										
Risk Adjustment	1,121.98										
Contractual Service Margin (CSM)	2,268.13										
CSM Systematic Allocation Ratio		0.33	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Opening CSM		2,268.13	1,587.69	833.54	-	-	-	-	-	-	-
Interest Accretion - CSM		113.41	79.38	41.68	-	-	-	-	-	-	-
Release in CSM		(793.85)	(833.54)	(875.22)	-	-	-	-	-	-	-

Do this section only when there is LC

Loss Component (LC)	-						
Systematic Allocation Ratio of LC	0%						

|					Difference (Check)			
End of period	Initial	1	2	3	Initial	1	2	3
PVFCF	(3,390.11)	3,885.36	1,980.77	-	-	54.97	18.86	-
RA	1,121.98	777.07	396.15	-	-	10.99	3.77	-
CSM	2,268.13	1,587.69	833.54	-	-	-	-	-
LRC GMM	-	6,250.12	3,210.46	-	-	65.96	22.64	-
LRC PAA	-	6,116.86	3,118.40	(0.00)				
Absolute Difference								
Percentage Difference								

Premium Allocation Approach

Insurance Revenue

Expected premium received allocated according to passage of time or expected risk pattern

Disclosure requirements include:

- Insurance revenue

- Split by LRC excl. LC and LC

- Insurance finance income and expenses (interest accretion and change in discount rate, especially if the OCI option is selected)

- Cash flows
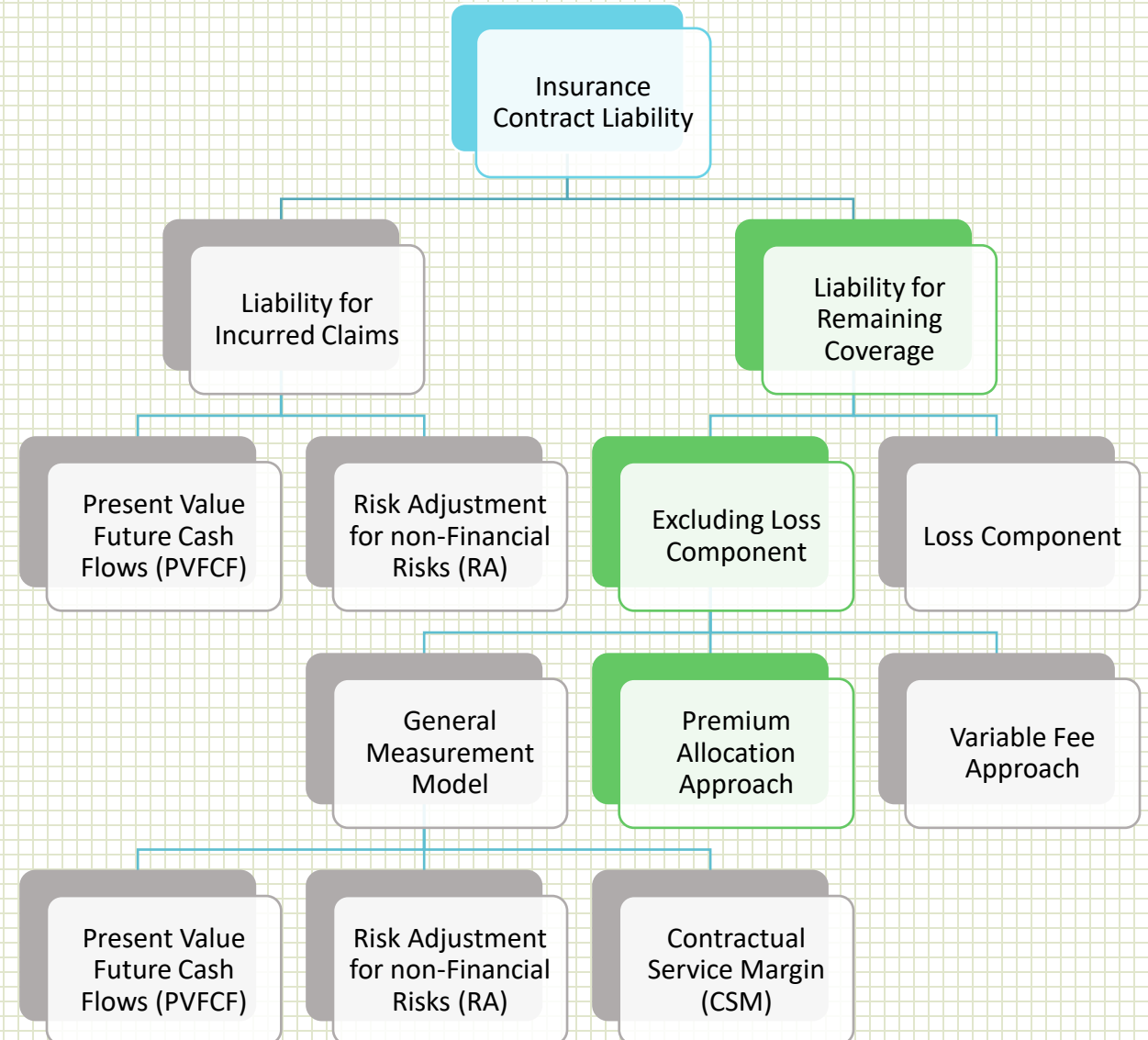
PAA Eligibility

Premium allocation approach (PAA) is a simplified measurement model. PAA may be adopted for a group of contracts if:

- Coverage period (or loosely speaking contract boundary) of each contract in the group is one year or less (automatic eligibility), or

- Measurement of LRC would not materially differ from GMM, including no significant variability in the Fulfilment Cash Flows (FCF) expected (potential judgmental eligibility)

The eligibility analysis is only performed at the inception of the group of contracts.

Note: Variability in FCF increases with extent of FCF relating to embedded derivatives and length of coverage period

1. High level assessment on whether PAA is suitable. PAA is easier to calculate, but compromise on useful disclosures such as the Contractual Service Margin.

2. Identify coverage period for each contract (coverage period for some contracts are not easily identifiable)

3. Set materiality thresholds. Ideally more than one threshold to avoid systematic issues. Consistency with audit plan's materiality is desirable. Examples:
   a. annual revenue > \$x
   b. $| LRC_{PAA} - LRC_{GMM} | > \$y$
   c. $| LRC_{PAA} - LRC_{GMM} | / LRC_{GMM} > z\%$

4. Develop scenarios to assess variability vis a vis materiality thresholds.

5. Develop methodology (qualitative or quantitative) for ongoing testing for new groups of contracts

Assess suitability of PAA → Identify coverage period → Set materiality thresholds → Develop scenarios to assess variability → Develop methodology for ongoing testing

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