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Measurement

Premium Allocation Approach (PAA)

PAA initial measurement

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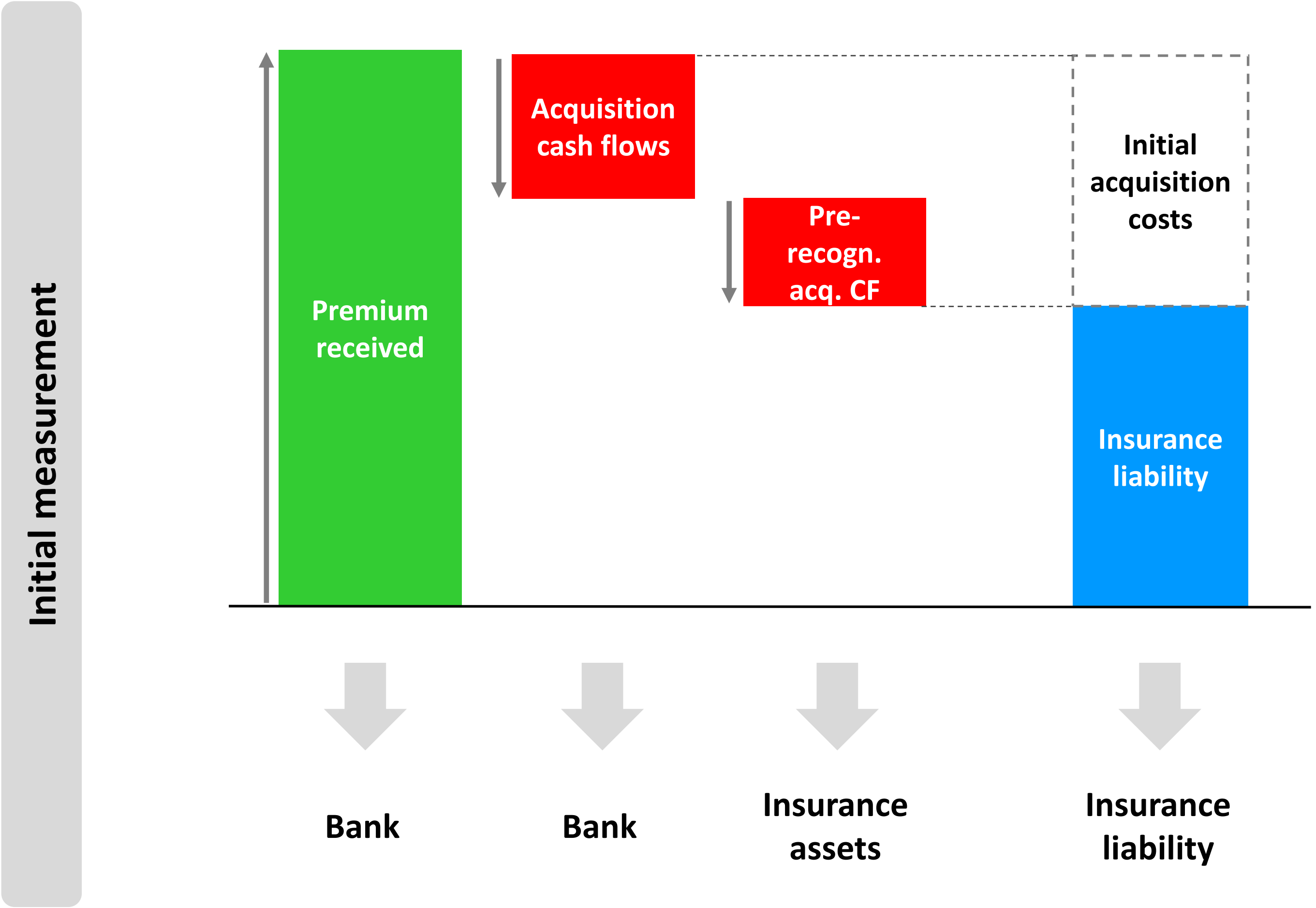
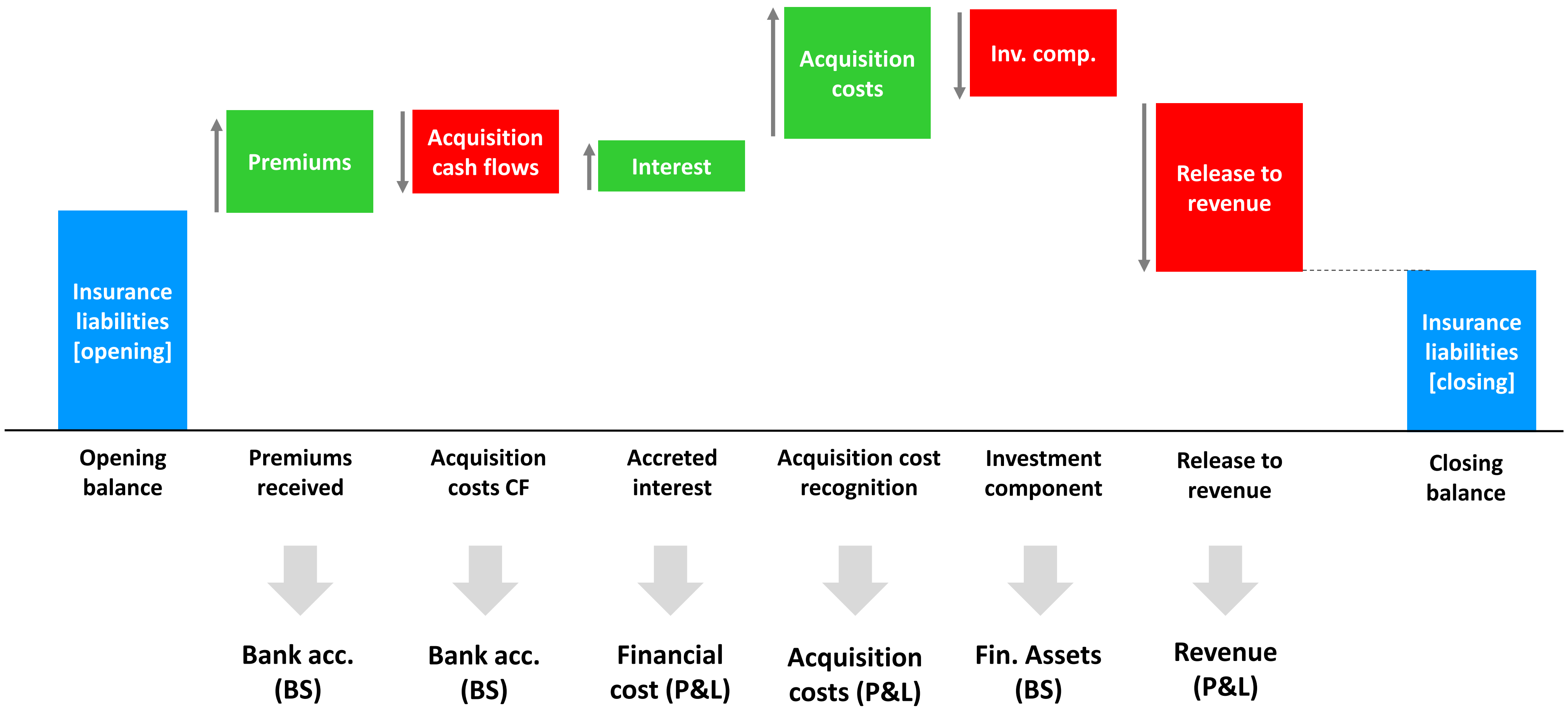


Acquisition costs deductions are not applicable if the entity opted to recognise acquisition costs directly in the P&L

Subsequent measurement



Introduction to IFRS 17

PAA revenue recognition [1]

IFRS 17.B126

Insurance revenue for the period is the amount of **expected premium receipts** (excluding any investment component and adjusted to reflect the time value of money and the effect of financial risk, if applicable, applying paragraph 56) allocated to the period.

IFRS 17.B126 & B127

The entity shall allocate the expected premium receipts to each period of coverage:

(a) on the basis of **the passage of time**; (…)

(b) on the basis of the **expected timing of incurred insurance service expenses**.

The options (a)/(b) can be changed if facts and circumstances change.

- Total expected premium for the contract is included in the calculation of revenue (not only premium paid in the period)
- Revenue for total insurance contract term represents premium (less investment component, plus interest if applicable)
- Timing of premium receipts does not directly affect the revenue recognition (it affects LFRC)
- PAA reserves may result in a similar outcome to IFRS 4 UPR method

PAA revenue recognition [2]

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Example: different term vs revenue recognition

- Single premium paid up front
- Single premium paid at the end of the coverage period
- Monthly premium

- 1 year contract
- quarterly reporting
- premium of 2000
- acq. costs of 200 paid up front
- linear recognition of revenue

	Initial measurement	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Opening balance	0	1800	1350	900	450
Premium received	2000	0	0	0	0
Acquisition cash flows	(200)	0	0	0	0
Acquisition cost	0	50	50	50	50
Release to revenue	0	(500)	(500)	(500)	(500)
Closing balance	1800	1350	900	450	0

Introduction to IFRS 17
PAA revenue recognition [3]

Example: different term vs revenue recognition

- Single premium paid up front
- **Single premium paid at the end of the coverage period**
- Monthly premium

- 1 year contract
- quarterly reporting
- premium of 2000
- acq. costs of 200 paid up front
- linear recognition of revenue

	Initial measurement	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Opening balance	0	(200)	(650)	(1100)	(1550)
Premium received	0	0	0	0	2000
Acquisition cash flows	(200)	0	0	0	0
Acquisition cost	0	50	50	50	50
Release to revenue	0	(500)	(500)	(500)	(500)
Closing balance	(200)	(650)	(1100)	(1550)	0

Introduction to IFRS 17

PAA revenue recognition [4]

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Example: different term vs revenue recognition

- Single premium paid up front
- Single premium paid at the end of the coverage period
- **Monthly premium**

- 1 year contract
- quarterly reporting
- premium of 2000
- acq. costs of 200 paid up front
- linear recognition of revenue

	Initial measurement	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Opening balance	0	(200)	(150)	(100)	(50)
Premium received	0	500	500	500	500
Acquisition cash flows	(200)	0	0	0	0
Acquisition cost	0	50	50	50	50
Release to revenue	0	(500)	(500)	(500)	(500)
Closing balance	(200)	(150)	(100)	(50)	0

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IFRS 17 allows the use of simplifying options for PAA, if certain conditions are met

	IFRS 17.56	IFRS 17.59(a)	IFRS 17.59(b)
Option	No adjustment of LFRC for time value of money	Recognition of insurance acquisition cash flow as expense when incurred	No adjustment of PVFCF for incurred claims for time value of money
Condition	Lack of significant financing component	Coverage period of each contract less than a year	Claims cash flows expected to be paid in less than a year

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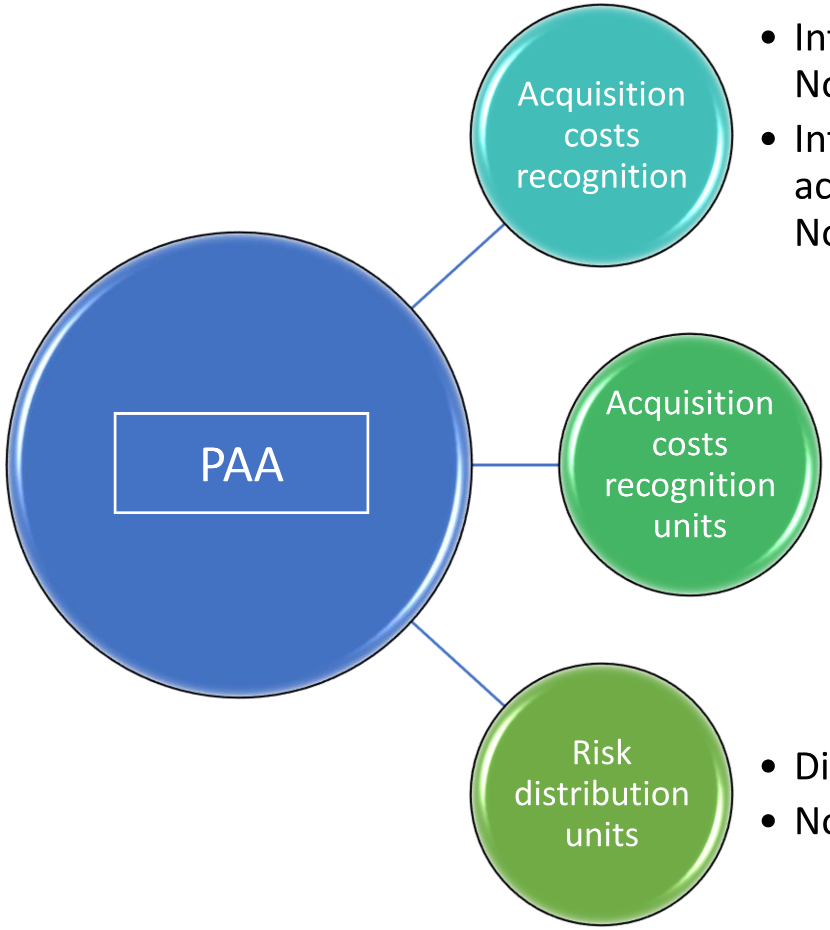
Areas of judgement in Premium Allocation Approach (PAA)

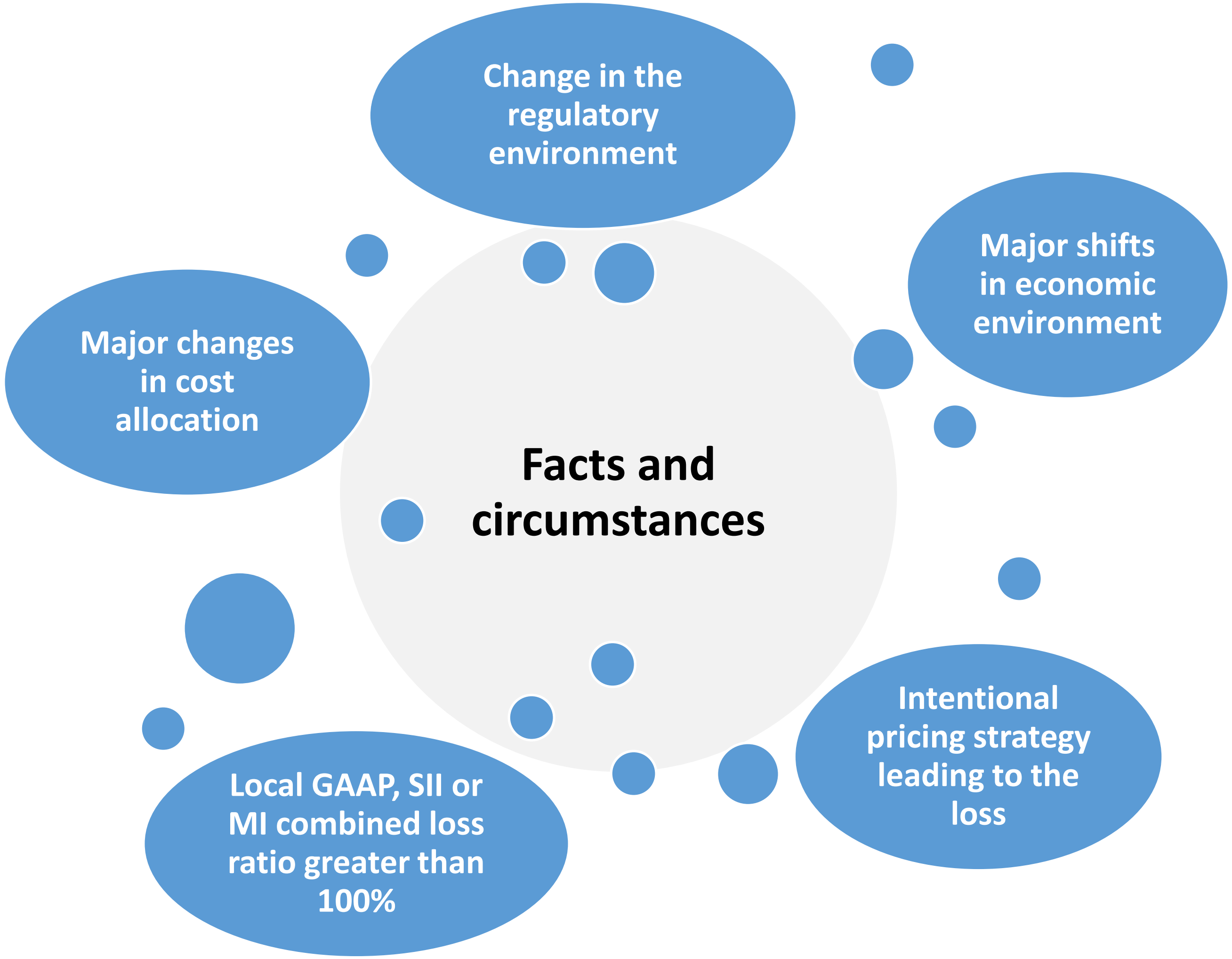


- Interest accreted on Notional DAC
- Interest not accreted on Notional DAC

- Discounted
- Not discounted

- Discounted
- Not discounted

Onerous contracts test [1]



Onerous contracts test

Comparison of the PAA measurement of the LFRC with the measurement based on the fulfilment cash flows.

Events triggering the test

Onerous contracts test should be done if the facts and circumstances indicate that the group of contracts is onerous.

PAA measurement of onerous contracts

The PAA measurement of onerous contracts should include the unexpired risk adjustment resulting from the test.

Onerous contracts test [2]

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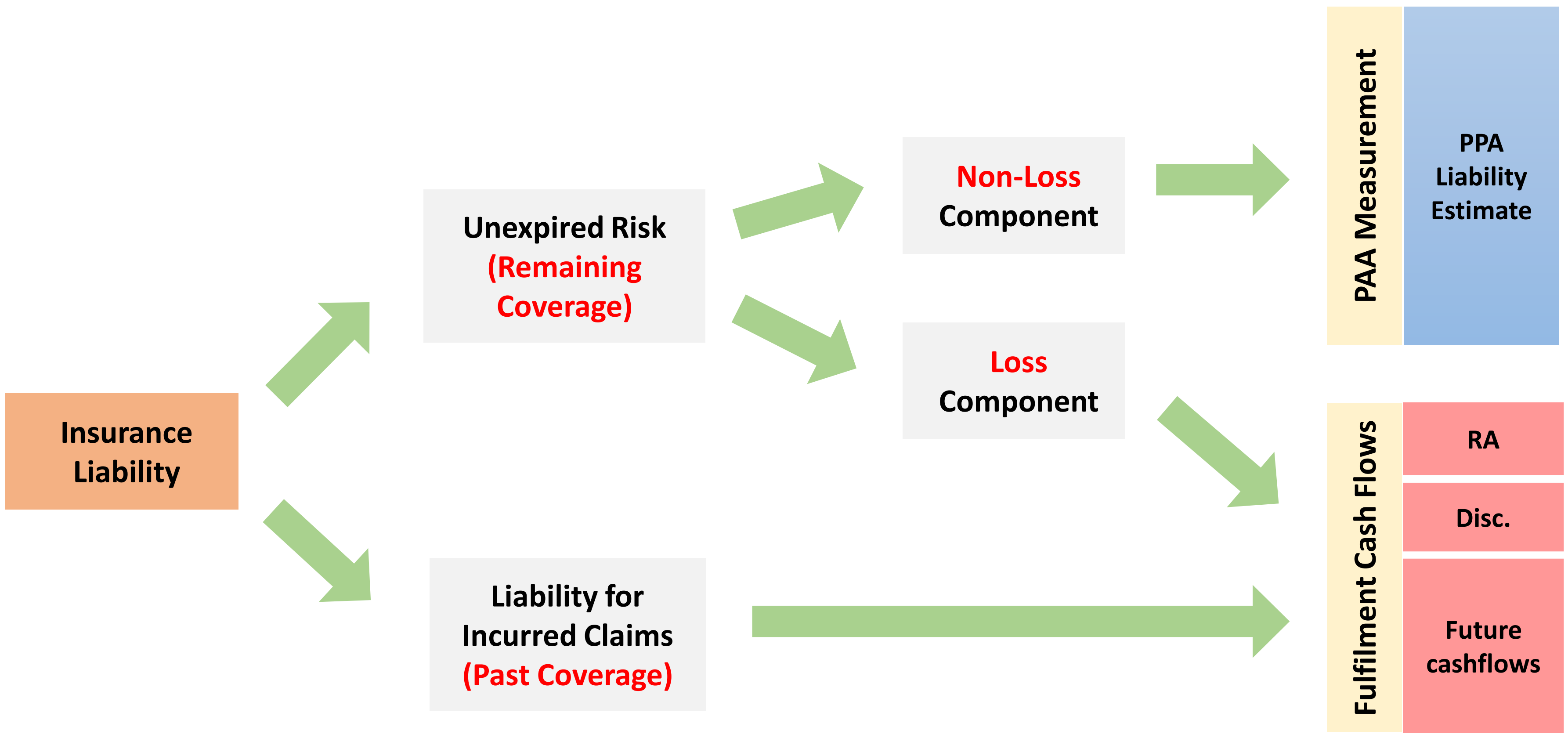
	Facts and circumstances indicate that the group is onerous	Onerous contracts test: At the group recognition date	Onerous contracts test: At the reporting date	
IFRS 4	N/a	No	Yes	LAT Reserve / URR
IFRS 17	No	No	No	
IFRS 17	Yes	Yes	Yes	GM measurement

Impacts grouping

May impact the recognition date

PAA measurement summary



Non-life insurance fulfilment CF example

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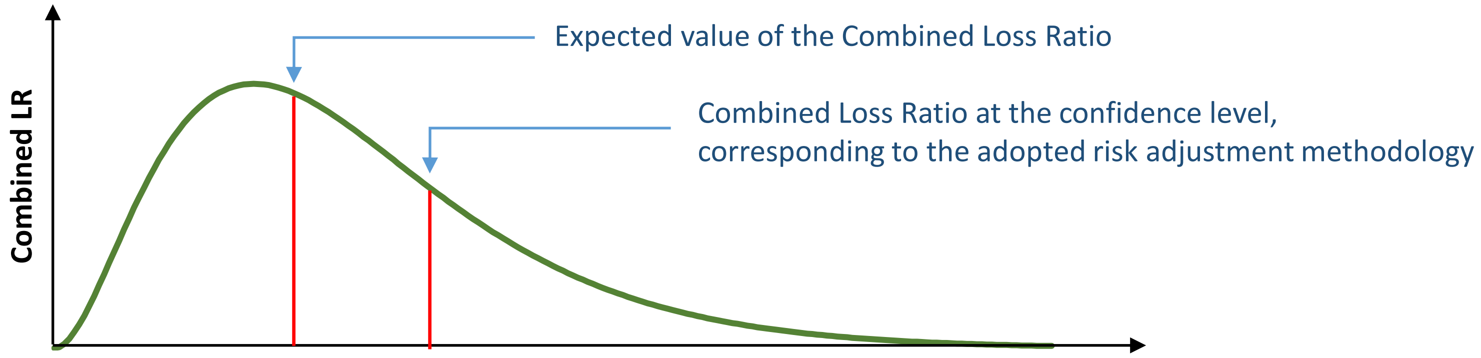
An example of general insurance fulfilment cash flows calculation



[Fulfilment Cash Flow] = [Unearned Premium] × [Combined Loss Ratio + Risk Adjustment] − [Present Value of Premiums CF]

Claims and expenses (including acquisition costs calculated on discounted basis)

Including premiums receivable

Introduction to IFRS 17

PAA – Differences compared to the GM

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Area	General Model	Premium Allocation Approach
Scope	LFRC and LIC	LFRC and LIC (LIC measured at the FCF value)
Application	All except contracts with Direct Participation Features (DPF)	Non-DPF contracts with the insurance coverage no more than a year
Initial measurement	PVCF + RA + CSM	Premiums less initial acquisition costs
Subsequent measurement	PVCF + RA + CSM	Recurrent formula (see slides 64-67)
Cash flow projections	Yes	No (except for the LC and LIC)
Risk adjustment	Yes	No (except for the LC and LIC)
CSM	Yes (if non-onerous and insurance issued)	No
Immediate acquisition costs recognition option	No	Yes
Revenue	In line with insurance service measured with claims, expenses and coverage units	Pro rata temporis or in proportion to the risk release
Onerous contract test	No	Yes (depending on facts and circumstances)

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- Single premium one year accident insurance
- Uniform risk distribution over the insurance coverage period
- Coverage period starts on the first day of the financial year
- All acquisition costs are paid on day one
- The entity opted to accrete interest on the PAA liability
- The entity opted to recognise acquisition costs over the coverage period
- Credit (liabilities and incomes) shown with minus
- Debits (assets and expenses) shown with plus

Single premium	1,000
Initial acquisition CF	120
Pre-recognition acquisition CF	80
Claims - projected	600
Claims - actual	500
Expenses - projected	100
Expenses - actual	150
Risk free discount rate	3%
Investment component	-

Premium Allocation Approach

Initial measurement	**Ins. liab.**	**Bank**	**Ins. asset**
Premiums received	(1,000.0)	1,000.0	
Initial acquisition costs	120.0	(120.0)	
Pre-recognition acquisition CF	80.0	-	(80.0)
Total	**(800.0)**	**880.0**	**(80.0)**

General Model

Initial measurement	**FCF**	**CSM**	**Bank**	**Ins. asset**
Premium	-	(1,000.0)	1,000.0	
Initial acquisition CF	-	120.0	(120.0)	
Pre-recognition acquisition CF	-	80.0	-	(80.0)
PV of projected claims	(582.5)	582.5	-	
PV of projected exp.	(97.1)	97.1	-	
Total	**(679.6)**	**(120.4)**	**880.0**	**(80.0)**

Introduction to IFRS 17

PAA - Example [2]

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Premium Allocation Approach	General Model

Insurance liability

Opening b/ca	**(800.0)**	
Interest	(24.0)	**Financial costs**
Amortisation of acquisition costs	(200.0)	**Ins. service costs**
Release to revenue	1,024.0	**Revenue**
Closing b/ce	**-**	

Fulfilment Cash Flows

Opening b/ce	**(679.6)**	
Unwind of discount	(20.4)	**Financial costs**
Claims - projected	600.0	**Revenue**
Expenses - projected	100.0	**Revenue**
Closing b/ce	**-**	

CSM

Opening b/ce	**(120.4)**	
Interest	(3.6)	**Financial cost**
Release to revenue	124.0	**Revenue**
Closing b/ce	**-**	

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Premium Allocation Approach			General Model		
Income Statement			**Income Statement**		
			Claims - projected	(600.0)	Fulfilment cash flows
			Expenses - projected	(100.0)	Fulfilment cash flows
			Acquisition costs	(200.0)	Ins. service costs
			CMS amortisation	(124.0)	CSM
Revenue	**(1,024.0)**	Insurance liability	**Revenue**	**(1,024.0)**	
Claims - actual	500.0	Bank/LIC	Death benefit	500.0	Claims reserve
Expenses - actual	150.0	Bank/LIC	Expenses	150.0	Liabilities
Acquisition costs	200.0	Insurance liability	Acquisition costs	200.0	Revenue
Insurance service cost	**850.0**		**Insurance service cost**	**850.0**	
Financial costs	24.0	Insurance liability	Financial costs	0.0	
Unwind on discount	0.0		Discounting unwind	20.4	Fulfilment cashflows
Interest accreted on CSM	0.0		Interest accreted on CSM	3.6	CSM
Financial insurance income	**24.0**		**Financial insurance income**	**24.0**	
Gross result	**(150.0)**		**Gross result**	**(150.0)**	

PAA Eligibility Criteria

PAA eligibility – measurement criterion
Introduction [1]

Measurement criterion

art. 53a

The PAA measurement of the LFRC does not differ materially from the GM measurement

Variability criterion

art. 54

The criterion is not met if an entity expects significant variability in the fulfilment cash flows

or

Duration criterion

art. 53b

The coverage period of each contract in the group is one year or less

PAA or not PAA,
that is the question

PAA eligibility – measurement criterion

Scenario 1

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Premium: Regular

Risk dist: Uniform

CSM release: Uniform

Scenario 1

Cash flows	Premiums	Claims	CU	Risk dist.
Year 1	100	-50	1	1
Year 2	100	-50	1	1
Year 3	100	-50	1	1

No difference

		Premiums	Claims	CSM	Total	PAA	Diff
	Before any cash flows	**300**	**-150**	**-150**	**0**	**0**	-
Year 1	Premiums	-100			-100	-100	-
	Revenue		50	50	100	100	-
	Closing b/ce	**200**	**-100**	**-100**	**0**	**0**	-
Year 2	Premiums	-100			-100	-100	-
	Revenue		50	50	100	100	-
	Closing b/ce	**100**	**-50**	**-50**	**0**	**0**	-
Year 3	Premiums	-100			-100	-100	-
	Revenue		50	50	100	100	-
	Closing b/ce	**0**	**0**	**0**	**0**	**0**	-

PAA eligibility – measurement criterion
Scenario 2

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Premium: **Upfront**

Risk dist: **Uniform**

CSM release: **Uniform**

Scenario 2

Cash flows	Premiums	Claims	CU	Risk dist.
Year 1	300	-50	1	1
Year 2		-50	1	1
Year 3		-50	1	1

No difference

		Premiums	Claims	CSM	Total	PAA	Diff
	Before any cash flows	**300**	**-150**	**-150**	**0**	**0**	-
Year 1	Premiums	-300			-300	-300	-
	Revenue		50	50	100	100	-
	Closing b/ce	**0**	**-100**	**-100**	**-200**	**-200**	-
Year 2	Premiums				0	0	-
	Revenue		50	50	100	100	-
	Closing b/ce	**0**	**-50**	**-50**	**-100**	**-100**	-
Year 3	Premiums				0	0	-
	Revenue		50	50	100	100	-
	Closing b/ce	**0**	**0**	**0**	**0**	**0**	-

PAA eligibility – measurement criterion

Scenario 3

Premium: **End**

Risk dist: **Uniform**

CSM release: **Uniform**

Scenario 3

Cash flows	Premiums	Claims	CU	Risk dist.
Year 1		-50	1	1
Year 2		-50	1	1
Year 3	300	-50	1	1

No difference

		Premiums	Claims	CSM	Total	PAA	Diff
	Before any cash flows	300	-150	-150	0	0	-
Year 1	Premiums				0	0	-
	Revenue		50	50	100	100	-
	Closing b/ce	300	-100	-100	100	100	-
Year 2	Premiums				0	0	-
	Revenue		50	50	100	100	-
	Closing b/ce	300	-50	-50	200	200	-
Year 3	Premiums	-300			-300	-300	-
	Revenue		50	50	100	100	-
	Closing b/ce	0	0	0	0	0	-

PAA eligibility – measurement criterion

Scenario 4

Premium: **Regular**

Risk dist: **Non-uniform**

CSM release: **Uniform**

Scenario 4

Cash flows	Premiums	Claims	CU	Risk dist.
Year 1	100	-80	1	8
Year 2	100	-10	1	1
Year 3	100	-10	1	1

Difference

		Premiums	Claims	CSM	Total	PAA	Diff
	Before any cash flows	300	-100	-200	0	0	-
Year 1	Premiums	-100			-100	-100	-
	Revenue		80	67	147	240	-93
	Closing b/ce	200	-20	-133	47	140	-93
Year 2	Premiums	-100			-100	-100	-
	Revenue		10	67	77	30	47
	Closing b/ce	100	-10	-67	23	70	-47
Year 3	Premiums	-100			-100	-100	-
	Revenue		10	67	77	30	47
	Closing b/ce	0	0	0	0	0	-

PAA eligibility – measurement criterion

Scenario 5

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Scenario 5

Premium: **Regular**

Risk dist: **Non-uniform**

CSM release: **Non-uniform**

Cash flows	Premiums	Claims	CU	Risk dist.
Year 1	100	-80	8	8
Year 2	100	-10	1	1
Year 3	100	-10	1	1

No difference

		Premiums	Claims	CSM	Total	PAA	Diff
	Before any cash flows	300	-100	-200	0	0	-
Year 1	Premiums	-100			-100	-100	-
	Revenue		80	160	240	240	-
	Closing b/ce	200	-20	-40	140	140	-
Year 2	Premiums	-100			-100	-100	-
	Revenue		10	20	30	30	-
	Closing b/ce	100	-10	-20	70	70	-
Year 3	Premiums	-100			-100	-100	-
	Revenue		10	20	30	30	-
	Closing b/ce	0	0	0	0	0	-

PAA eligibility – measurement criterion

3Blocks PAA eligibility assessment tool

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5-year coverage period **PAA eligibility check - v1.3** [www.3blocks.co]

Parameters

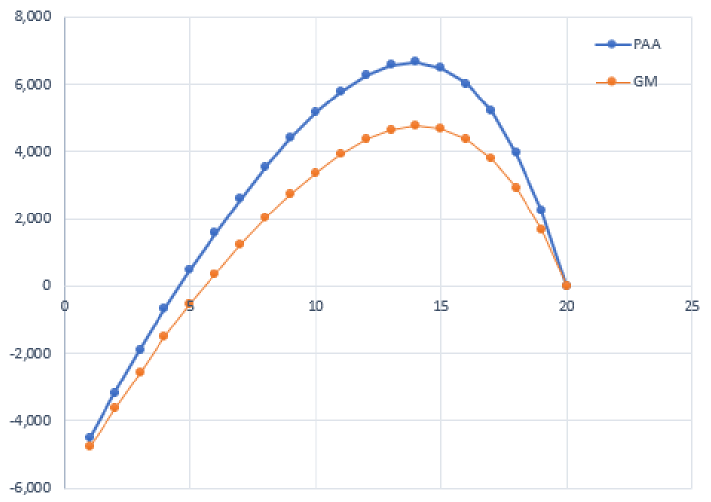
Claims ratio on discounted basis [A]	50%
Expense ratio on discounted basis [B]	15%
Acquisition cost ratio on disc. basis [C]	10%
Risk adjustment percentage [D] (*)	5%
Combined loss ratio ([A]+[B]+[C]+[D])	80%
Total undiscounted premiums	100,000
Premium type (single, regular)	quarterly
Locked-in discount rate	2.0%
Lapse ratio	20%
Premium refund on lapse	yes
Acq. cost amortisation	risk

(*) calculated as % of the PV of claims and expenses

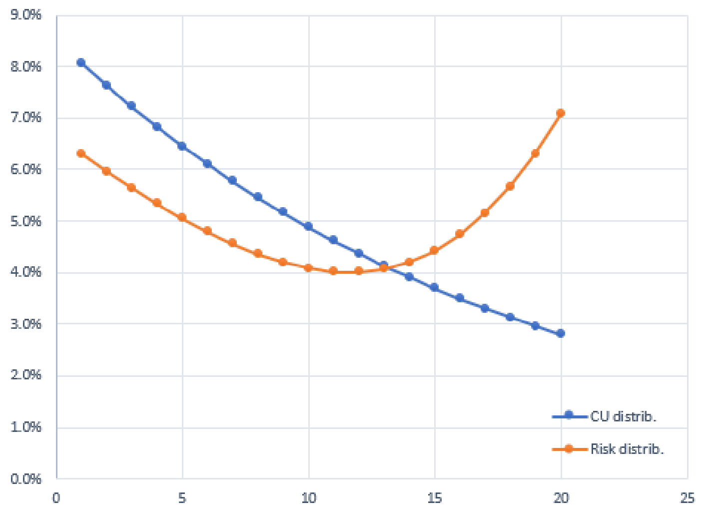
Differences on the LFRC: PAA vs GM

Average difference	1,245.1	78.3%
Maximum difference	1,932.0	342.0%
Minimum non-zero diff.	231.0	4.8%

LFRC under the GM and the PAA



CU and the risk distrib. (including lapses)



Period and discounting			Coverage units				Risk distribution			
Period		Disc.	Undisc.	Undisc. (incl. lapses)	%	Disc.	Weight	Weight (incl. lapses)	%	Disc.
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	0	1.00								
Y1'Q1	1	1.00	1.0	0.95	8.07%	0.95	1.0	0.95	6.31%	6.28%
Y1'Q2	2	0.99	1.0	0.89	7.63%	0.89	1.0	0.89	5.96%	5.91%
Y1'Q3	3	0.99	1.0	0.85	7.22%	0.84	1.0	0.85	5.64%	5.56%
Y1'Q4	4	0.98	1.0	0.80	6.83%	0.79	1.0	0.80	5.34%	5.23%

Period	Undiscounted cash flows						Discounted cash		
	Premium	Claims	Expenses	Acq. cost	Premium refund	Total	Premium	Claims	Expenses
[1]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]
	-5,000			5,967		967	-5,000		
Y1'Q1	-4,729	1,981	594	0	0	-2,153	-4,705	1,971	591
Y1'Q2	-4,472	1,874	562	0	0	-2,036	-4,428	1,855	557
Y1'Q3	-4,229	1,772	532	0	0	-1,925	-4,167	1,746	524
Y1'Q4	-4,000	1,677	503	0	0	-1,820	-3,922	1,644	493

PAA eligibility – variability criterion

Decoding the variability criterion

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[Negative form of the variability criterion]

PAA cannot be applied if:

"at the inception of the group, an entity expects significant variability in the fulfilment cash flows that would affect the measurement of the LFRC during the period before a claim is incurred." art. 54

[Positive form of the variability criterion]

PAA can be applied if:

at the inception of the group an entity

- does not expect significant variability in the FCF

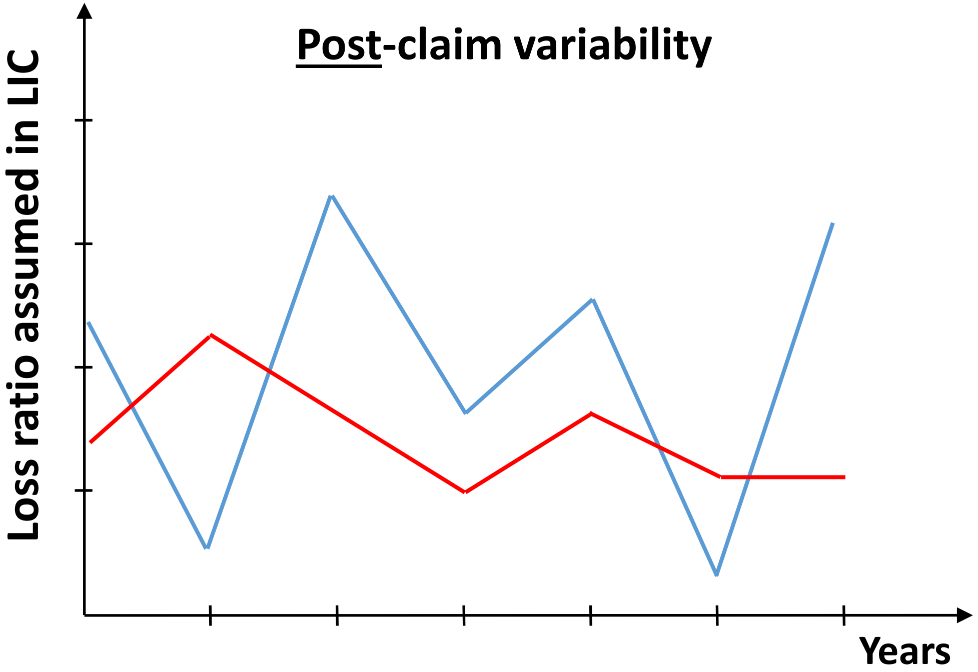
  OR

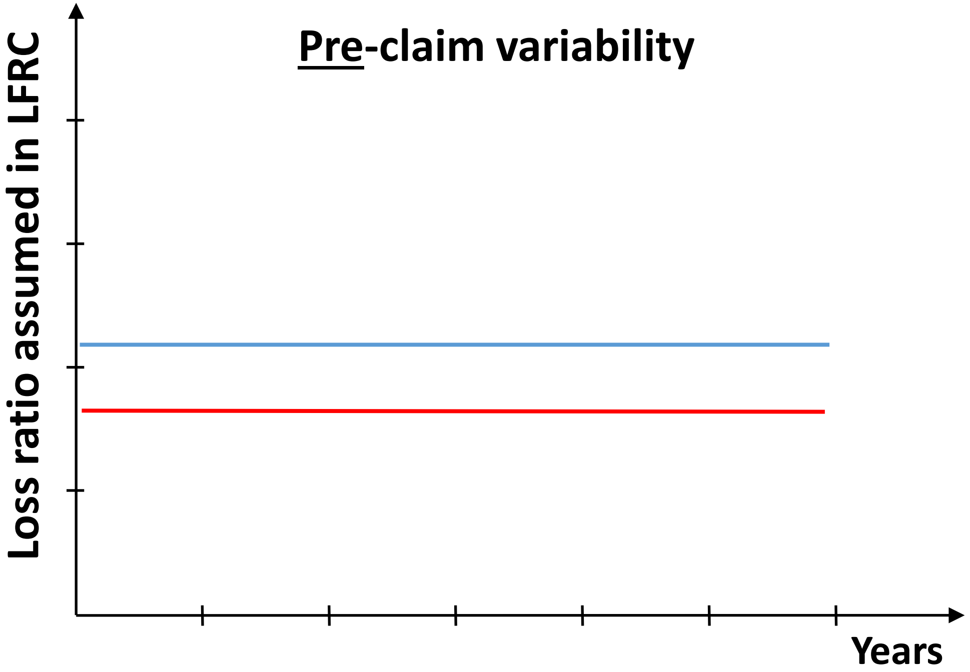
- the variability in the FCF does not affect measurement of the LFRC in the pre-claim period

High variability does not infringe upon Article 54 (e.g. if this high variability has no major impact on LFRC)

PAA eligibility – variability criterion

Pre-claim vs post-claim variability

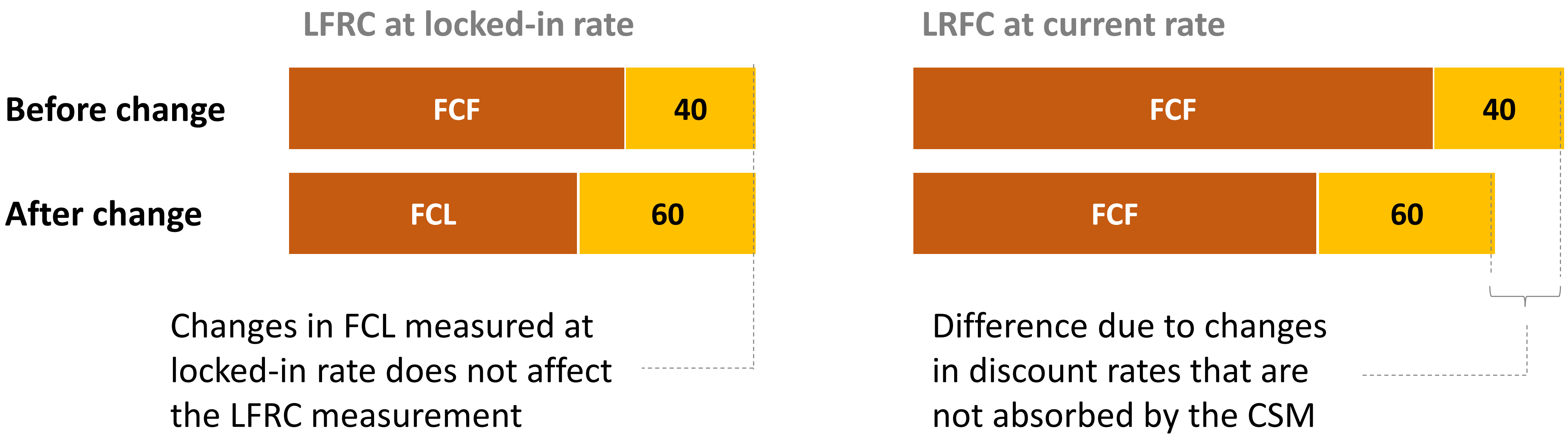




Even high variability in LIC fulfilment cash flows doesn't imply high variability in the LFRC measurement

PAA eligibility – variability criterion

Variability impact on LFRC



FCF Fulfilment Cash Flows

CSM Contractual Service Margin

Variability in fulfilment cash flows of non-onerous contacts that are not discount rate sensitive is absorbed by the CSM

PAA eligibility – variability criterion
Variability impact on LFRC

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Two situations when the variability criterion is not met:

Situation A	Situation B
[Contract is onerous]	[Contract is non-onerous]
AND	AND
[High variability of FCF impacting LFRC]	[FCF are discount rate sensitive]

Premiums and acq. costs under the PAA

Premiums and acquisition costs under PAA

PAA - Initial measurement

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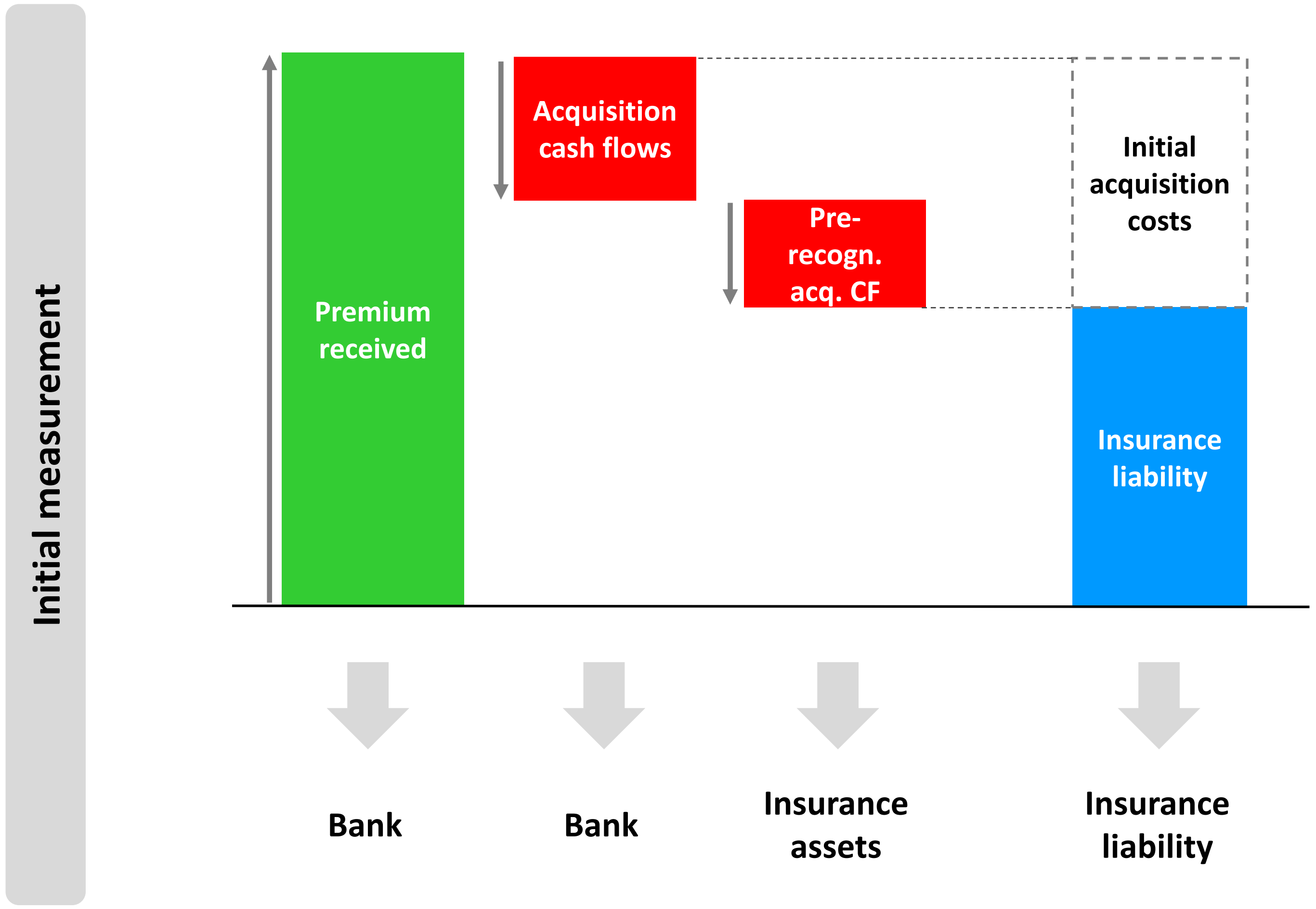

Acquisition costs deductions are not applicable if the entity opted to recognise acquisition costs directly in the P&L

Premiums and acquisition costs under PAA

PAA – Subsequent measurement

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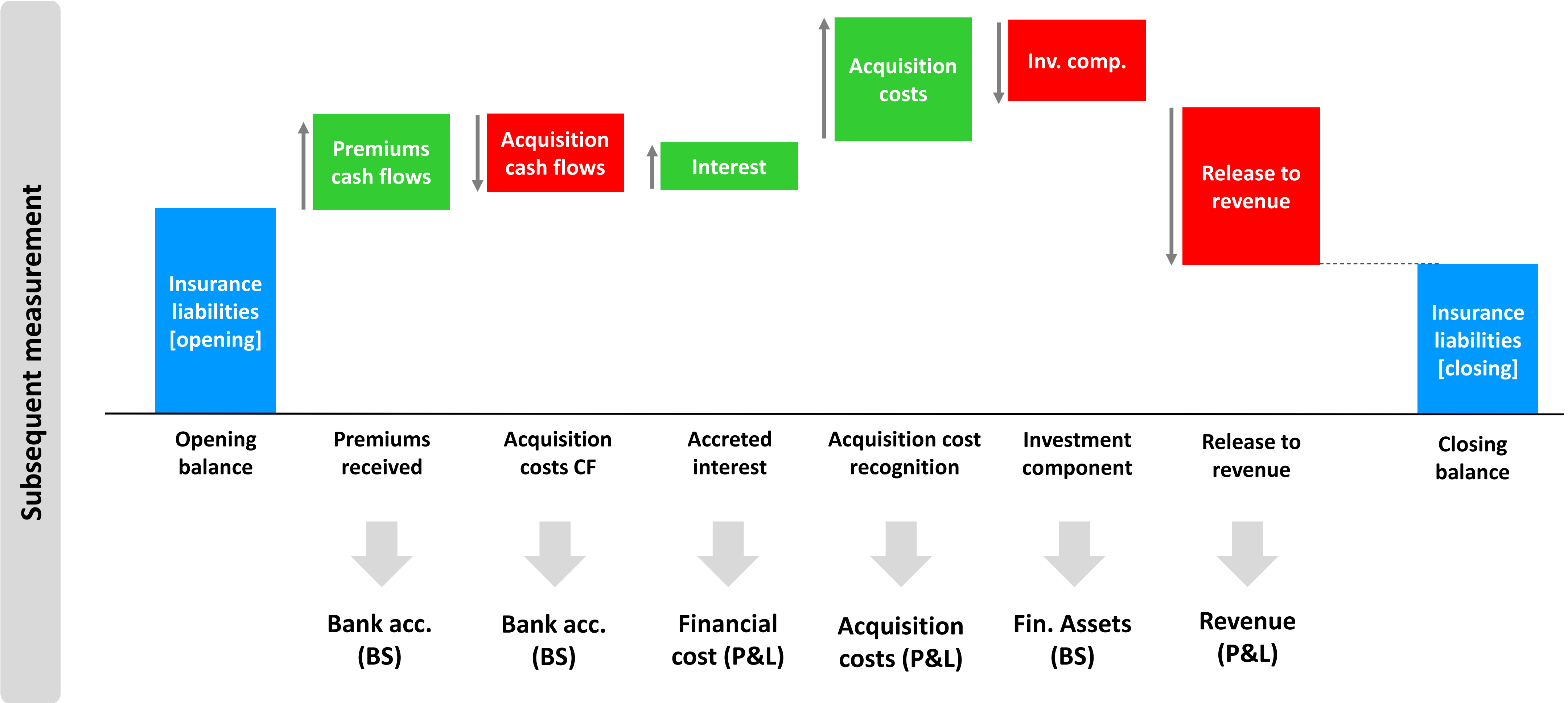

Premiums and acquisition costs under IFRS 4
Accounting under IFRS 4

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IFRS 4	Accounts						
	UPR	DAC	Premium Receivables	Payables	Bank	Net Assets	P&L
Opening b/ce	-		-		-	-	-
Written premium	100		-100			-	-
Acq. cost accrued		-30		30		-	-
Premium paid			80		-80	-	-
Acq. cost paid				-20	20	-	-
Acq. cost recog.		15				**15**	**-15**
Revenue	-50					**-50**	**50**
Closing b/ce	**50**	**-15**	**-20**	**10**	**-60**	**-35**	**35**

Accruals

Cash flows

Income statement

Premiums and acquisition costs under PAA

Accounting under IFRS 17

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IFRS 17 - Option A	Accounts							Off-BS	
	LRFC	DAC	Premium Receivables	Payables	Bank	Net Assets	P&L	Premium Receivables	Payables
Opening b/ce	-				-	-	-		
Written premium						-	-	-100	
Acq. cost accrued						-			30
Premium paid	80				-80	-	-	80	
Acq. cost paid	-20				20	-			-20
Acq. cost recog.	15					**15**	-15		
Revenue	-50					**-50**	50		
Closing b/ce	**25**				**-60**	**-35**	**35**	**-20**	**10**

IFRS 17 - Option B	Accounts						
	LRFC				Bank	Net Assets	P&L
	UPR	DAC	Premium Receivables	Payables			
Opening b/ce	-		-		-	-	-
Written premium	100		-100			-	-
Acq. cost accrued		-30		30		-	
Premium paid			80		-80	-	-
Acq. cost paid				-20	20	-	
Acq. cost recog.		15				**15**	-15
Revenue	-50					**-50**	50
Closing b/ce	**50**	**-15**	**-20**	**10**	**-60**	**-35**	**35**

Premiums and acquisition costs under PAA
Example

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	GWP	Premium paid	Earned premim	UPR BoP	UPR EoP	Premium Receivable BoP	Premium Receivable EoP
Year 1	100	80	50	0	50	0	20
Year 2	120	90	110	50	60	20	50

	Option A		Option B	
Year 1	**Opening b/ce**	**0**		
	GWP	100		
	Prem Rec BoP	0		
	Prem Rec EoP	-20	UPR	50
	Earned premium	-50	Premium receivable	-20
	Closing balnce	**30**		**30**
Year 2				
	GWP	120		
	Prem Rec BoP	20		
	Prem REc EoP	-50	UPR	60
	Earned premium	-110	Premium receivable	-50
	Closing balnce	**10**		**10**