S. I. A. s.r.l.
SVILUPPO INIZIATIVE ATTUARIALI
Viale delle Milizie, 1 - 00192 Roma - Tel.: 06 3202922, fax 06 3210250
E-mail: info@sifa-attuari.it

Le riserve tecniche dei rami danni: evoluzione normativa ed effetti sulle tecniche di valutazione

Parte 3 – Le riserve tecniche secondo i principi contabili internazionali

Rocco Roberto Cerchiara
Università della Calabria
cerchiara@unical.it

Vittorio Magatti
Attuario - Dottore di Ricerca
vittorio.magatti@gmail.com

Agenda

- *1- Introduction* *Slide 2*
- *2 – Level of Aggregation* *Slide 9*
- *3 – Measurement* *Slide 15*
- *4 – General Model (GMM o BBA)* *Slide 18*
- *5 – Premium Allocation Approach (PAA)* *Slide 37*
- *6 – GMM VS PAA – Summary* *Slide 44*
- *7 – Reinsurance Focus* *Slide 46*
- *8 – References* *Slide 50*

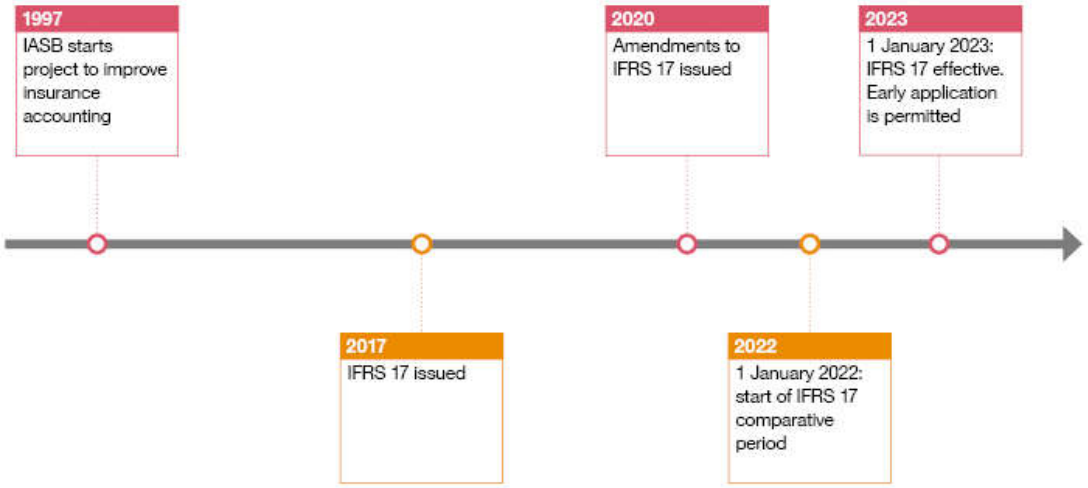
1 – Introduction

Some benefits

- Global comparability for the first time
- Relevant and updated measurement of liabilities
- Financial risks and economic mismatches revealed
- Source of earnings approach to performance
- Value of new business integrated with the accounting
- Enhanced disclosure and greater transparency
- Intuitive accounting that will be more understandable

Source: IFRS® Foundation **[3]**

Timeline

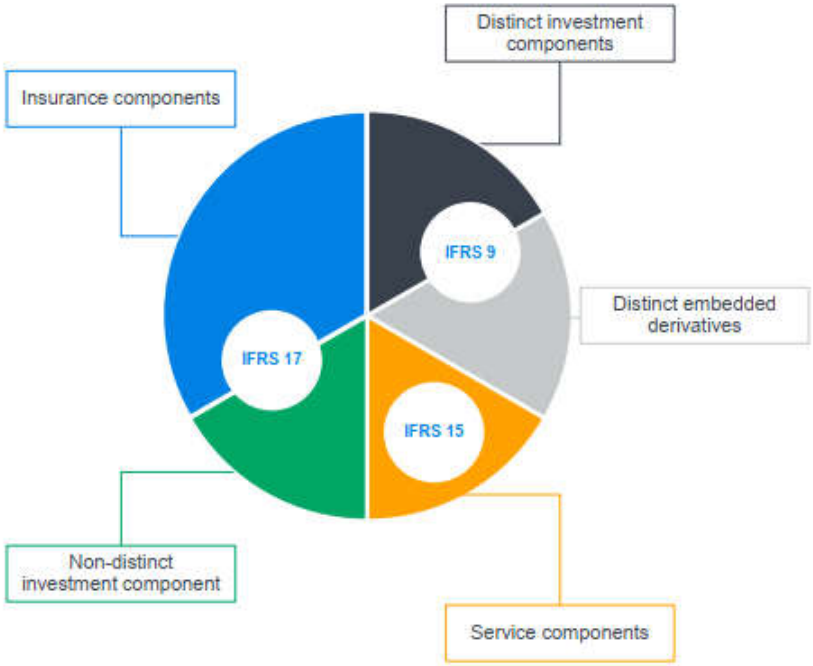


Source: **[3]**

- The International Accounting Standards Board (IASB) develops International Financial Reporting Standards (IFRS) – **IFRS 17 covers insurance contracts and replaces IFRS 4**

- On 25 June 2020, the International Accounting Standards Board (IASB) issued amendments to IFRS 17 'insurance contracts', **three years after IFRS 17 was originally issued** and 23 years after the insurance contracts project started. The standard comes into effect for annual periods from 1 January 2023, with earlier application permitted.

Scope and application



Source: **[2]**

- Applies to:
  - Insurance and Reinsurance contracts issued
  - Reinsurance contract held
  - Investment contracts with discretionary participation features
- Does not apply to:
  - Warranties ore residual value guarantees provided by manufacturer/retailer
  - Employer provided benefits
  - Contingent payments on non-financial items
  - Financial guarantees contracts
  - Policyholder accounting other than reinsurance ceded

What is “wrong” with IFRS4

- Lack of comparability between Countries
- Lack of comparability between Insurers/Re-Insurers
- Non-uniform reporting within groups
- Different levels of safety embedded in Insurance liabilities calculation
- Valuation of insurance liabilities does not have to be cash flow based
- Discounting is not always required (e.g., for Non-Life)
- Liabilities may be calculated based on historical assumptions
- Inconsistency with other Industries – **Revenues replace Premiums and any change in Reserves**

IFRS17 replace IFRS4, but (Re-)Insurers should continue to perform three Balance Sheet (Local and Solvency II)

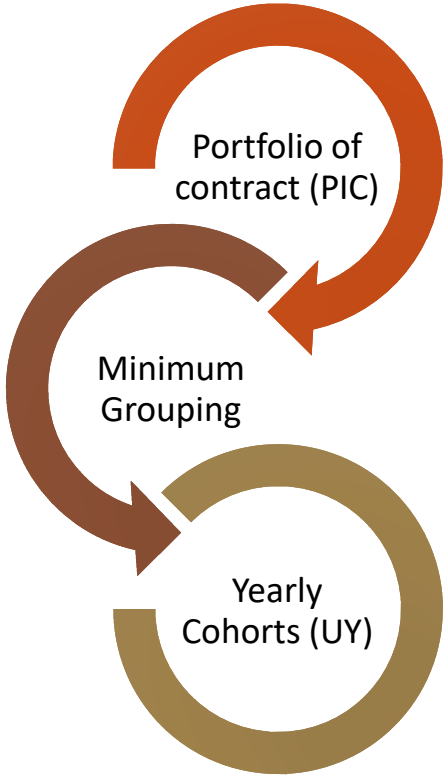
How wide is the impact

Balance Sheet	Income Statement	Disclosure
• Level of Aggregation • Measurement	• Revenues driven • Reduce some volatility in profit or loss	• Detailed • Designed to allow a better comparability

Subject of this seminar

2 – Level of Aggregation

From Portfolio to Unit of Accounts (1/2)



A portfolio of insurance contracts (PIC) is a collective of contracts subject to similar risks (risk insured) and managed together.

IFRS 17.14

An entity shall divide a portfolio of insurance contracts issued into a minimum of:

(a) a group of contracts that are onerous at initial recognition, if any;
(b) a group of contracts that at initial recognition have no **significant possibility** of becoming onerous subsequently, if any; and
(c) a group of the remaining contracts in the portfolio, if any.

IFRS 17.16

An entity shall not include contracts issued more than one year apart in the same group. To achieve this, the entity shall, if necessary, further divide the groups described above.

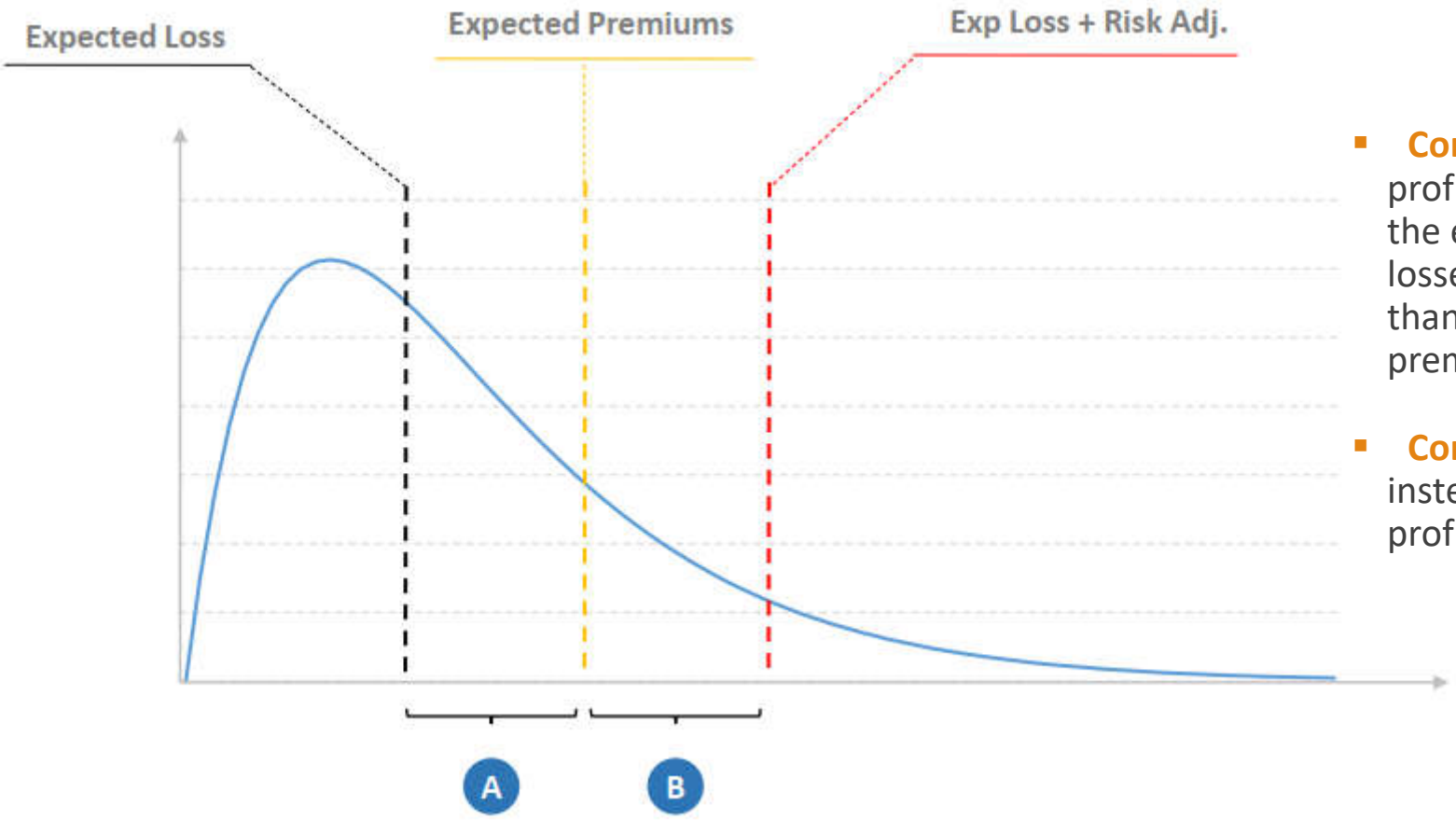
IFRS 17.22

The level of aggregation affects how the profitability of the business is reported

From Portfolio to Unit of Accounts (2/2)

- Groups established at initial recognition and their composition should **not be changed**
- Groups may be smaller that prescribed in the slide before (e.g., quarterly instead of yearly cohorts)
- Onerous contract group may be identified by measuring the set of contracts instead of on the individual basis
- Regulatory pricing restrictions (e.g., Gender Directive) driven profitability differentiation may be ignored

Onerous Contract Concept



- **Contract A** is profitable because the expected losses are lower than the expected premium
- **Contract B**, instead, is not profitable

Source: **[9]**

UoA VS LoB(s) – Comparable?

IFRS 17
Defines portfolios of contracts as groups of contracts that comprise "contracts subject to similar risks and managed together“

Solvency II / Local-GAAP
Defines (different) “Lines of Business” (LOB)

The definition of a portfolio under IFRS 17 appears to be sufficiently flexible to reconcile portfolios with Solvency II’s “Lines of Business” (*)

(*) EIOPA’s analysis of IFRS 17 Insurance Contracts

UoA VS LoB(s) – Any doubts?

3 – Measurement

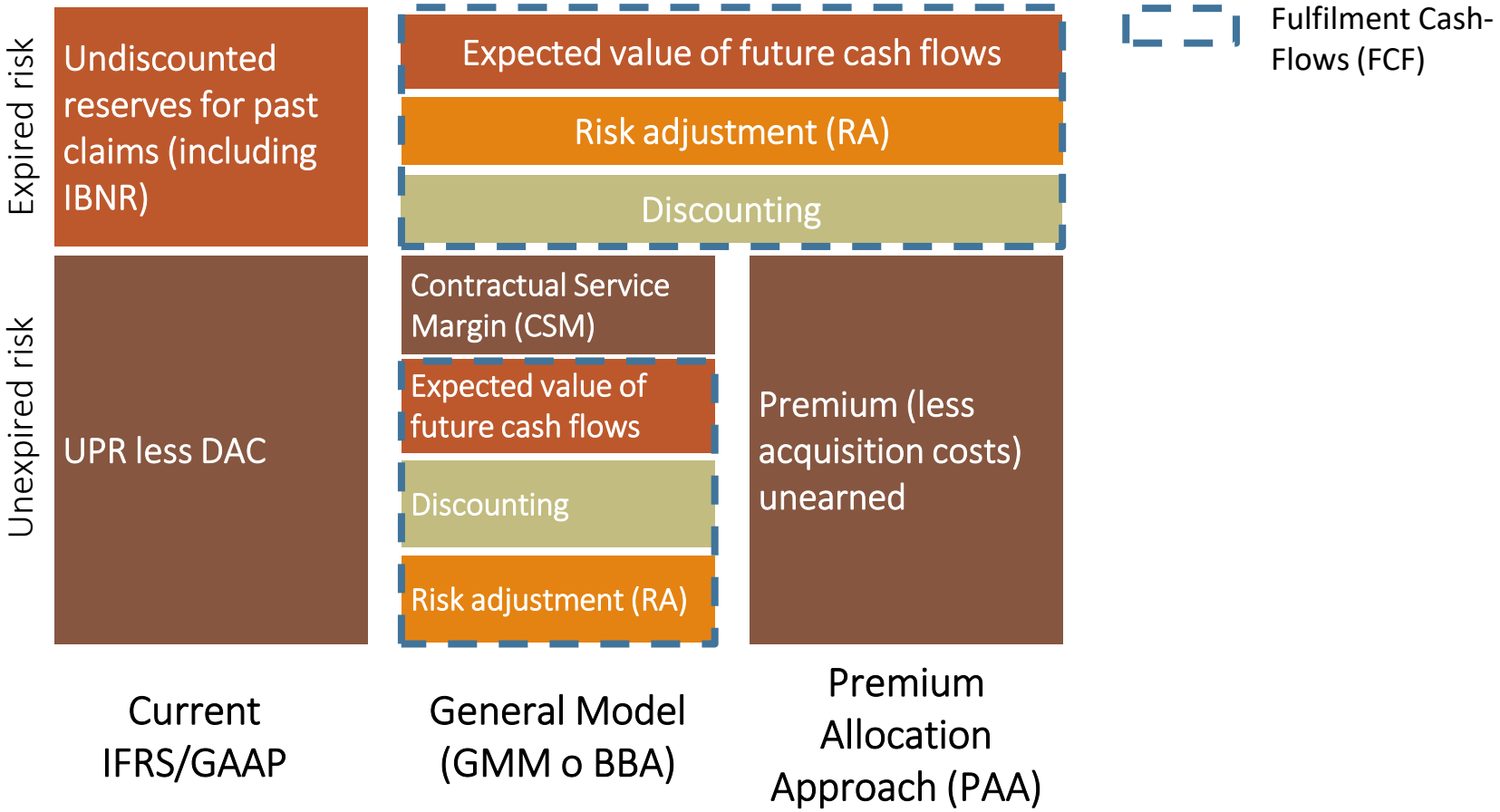
Measurement models overview (1/2)

	General model (GMM o BBA*)	Premium allocation approach (PAA)	Variable Fee Approach (VFA)
Application	Default approach	Short term contracts (less than 1 year) or others **	Contract linked to underlying assets
Examples	• Long-term and whole life insurance • Certain annuities • Certain general insurance contracts	• General insurance (i.e., 1-year non-life or health) • Short-term life and certain group contracts	• Unit-linked contracts and equity index-linked contracts • Continental European 90/10 contract • UK with profits contracts
Ins/Reins	(Re-)Insurance issued Reinsurance held	Insurance issued	(Re-)Insurance issued Reinsurance held
Mandatory?	Mandatory	Optional	Mandatory

** Building Block Approach* ***See slide 43*

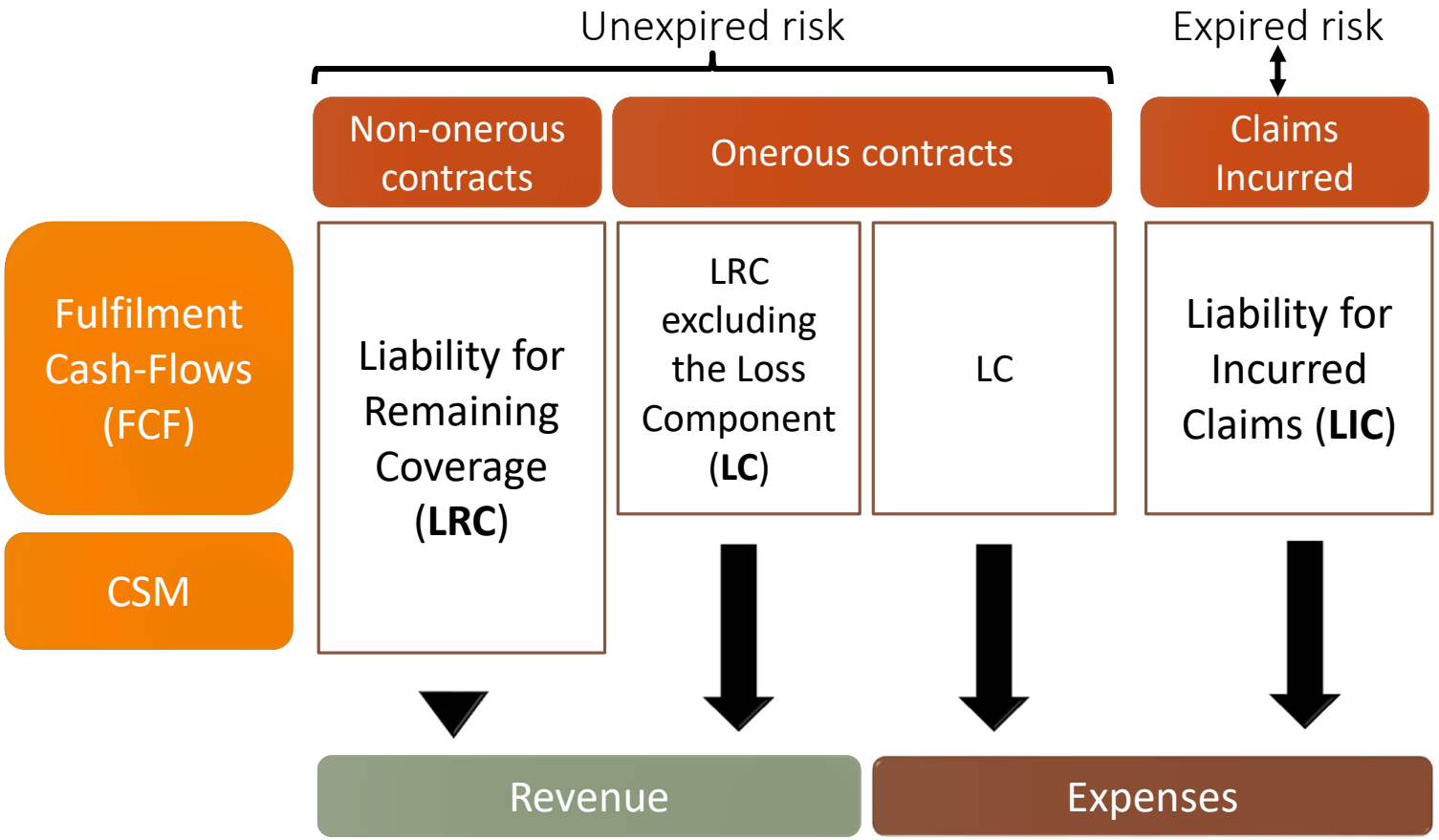
Out of Scope

Measurement models overview (2/2)



4 – General Model (GMM o BBA)

Insurance Liabilities – Components under GMM



Non-Onerous contracts at inception (1/2)

Expected value of future cash flows	Expected value (explicit, unbiased, probability weighted estimate) of the future cash flows (CF) that will arise as the insurer "fulfils" the insurance contract
Discounting	Discount future cash flows using rates to reflect the characteristics of the liabilities in terms of timing, currency and liquidity
Risk adjustment (RA)	Reflect compensation entity requires for uncertainty inherent in the cash flows. Quantifies the value difference between certain and uncertain liability
Contractual Service Margin (CSM)	Contractual service margin to prevent gain on policy inception. Unearned profits recognized over coverage period

The General Model is a default IFRS 17 insurance liabilities measurement approach

Non-Onerous contracts at inception (2/2)

Expected value of future cash flows

Discounting

Risk adjustment (RA)

Contractual Service Margin (CSM)

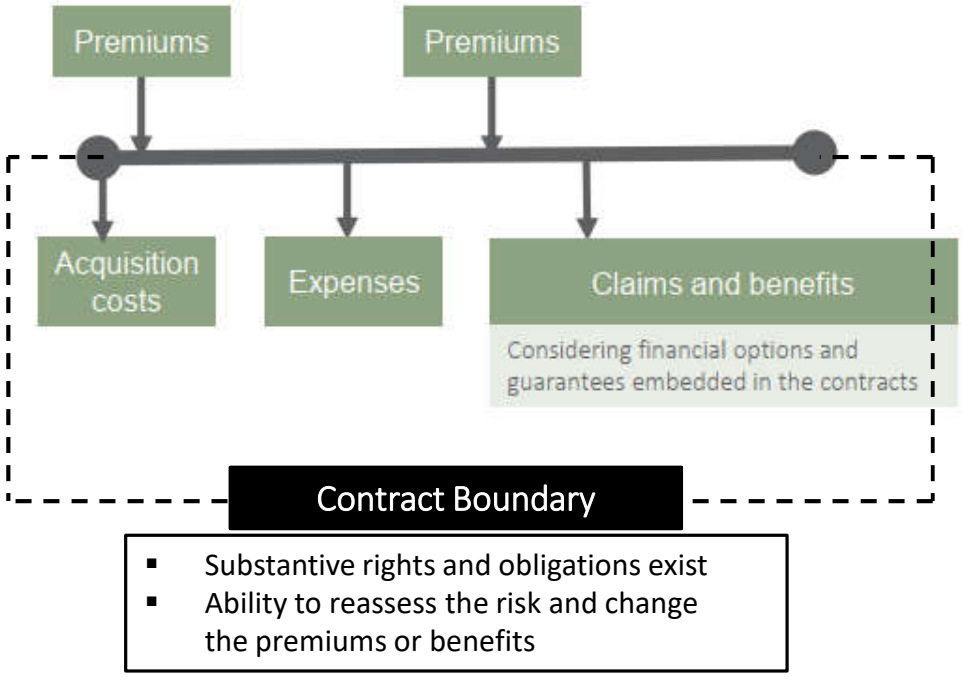
Fulfilment Cash-Flows

The **same** approach for the initial and subsequent measurement

Initial and subsequent measurement methods are **different**

The General Model is a default IFRS 17 insurance liabilities measurement approach

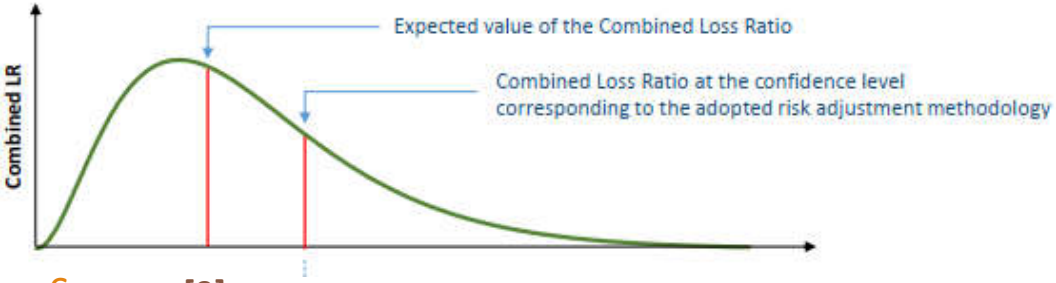
Expected value of future cash flows



- **Best estimate** of cash flows under all possible scenarios
- **Reassessed** at each reporting date
- Assumptions based on experience – Probability weighted and **unbiased**
- **Current estimates** (i.e., at measurement date) of future cash flows
- Within **boundary** of the contract
- Unbundle distinct components: investments, derivatives or service
- Only include cash-flows **directly attributable**
- Can be done at portfolio level and **allocated** to insurance groups

Source: **[3]**

Non-Life Insurance FCF example



Source: [9]

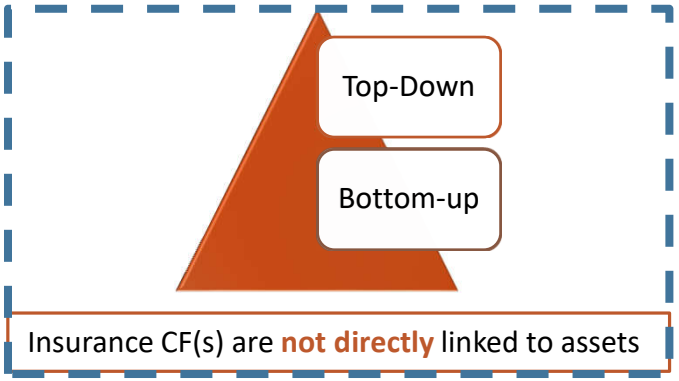
FCF = Unearned Premium x CoR + Risk Adj. - Present Value of Premium CF

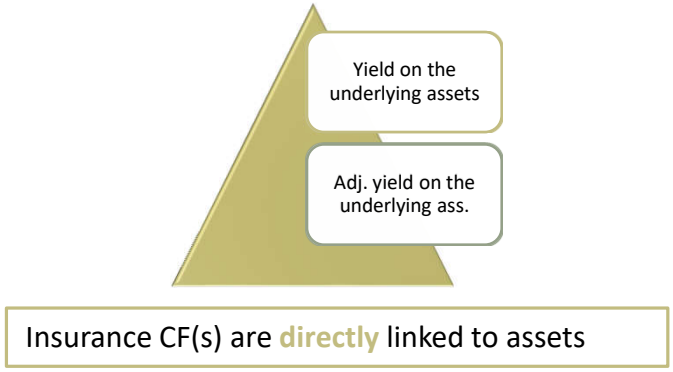
Including acquisition costs calculated on discounted basis

Including Premiums receivable

Discounting (1/2)

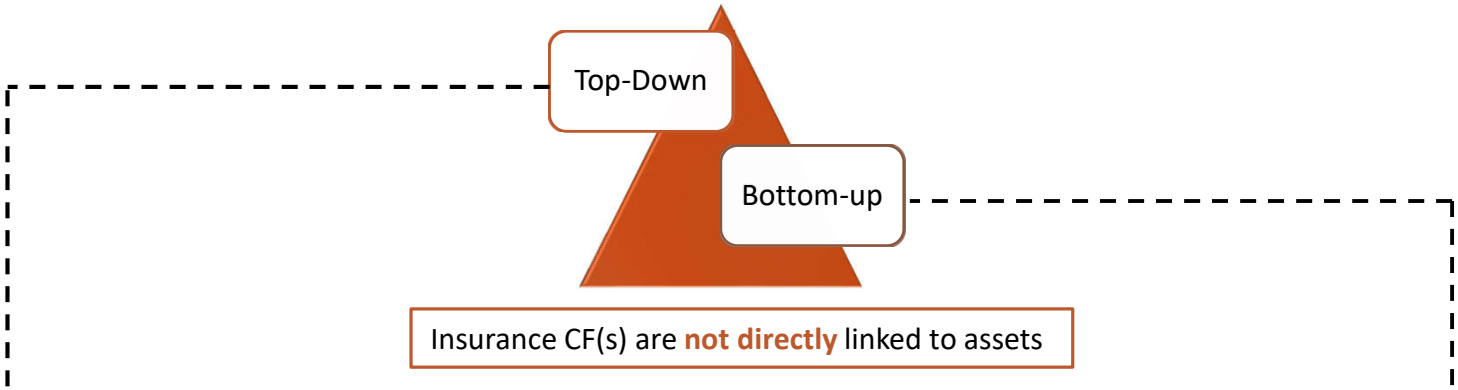
- Current market-consistent discount rates relevant to the liability
- Discount rates shall:
  - Reflect time value of money
  - Reflect characteristics of the CF(s)
  - Reflect liquidity characteristics of insurance contracts
  - Consistent with observable current market price for financial instruments and with CF(s) characteristics
  - Exclude factors that influence market prices, but do not affect the CF(s)
  - Discounting is not required if cash flows are expected to be received/paid within one year from the date the claims are incurred





In scope

Discounting (2/2)



Top-Down

Assets reference portfolio rate	+3%
Duration mismatch adjustment	+0.4%
Credit Risk premium for expected losses (Probability of Default)	-1.2%
Credit risk premium for unexpected losses (Cost of Downgrade)	-0.3%
Top-down IFRS 17 discount rate	**+1.9%**

Bottom-up

Bottom-up IFRS 17 discount rate	**+1.7%**
Liquidity Premium	+1.2%
Swap Rate (risk free rate)	+0.5%

N.B. **Illustrative** values in the tables

Risk Adjustment - Principles

IFRS 17 does not specify the estimation technique(s) used to determine the risk adjustment (RA) for non-financial risk […] to reflect the compensation the entity would require for bearing the non-financial risk, the risk adjustment for non-financial risk shall have the following characteristics:

(a) risks with low frequency and high severity will result in higher risk adjustments for non-financial risk than risks with high frequency and low severity;
(b) for similar risks, contracts with a longer duration will result in higher risk adjustments for non-financial risk than contracts with a shorter duration;
(c) risks with a wider probability distribution will result in higher risk adjustments for non-financial risk than risks with a narrower distribution;
(d) the less that is known about the current estimate and its trend, the higher will be the risk adjustment for non-financial risk; and
(e) to the extent that emerging experience reduces uncertainty about the amount and timing of cash flows, risk adjustments for non-financial risk will decrease and vice versa.

IFRS 17.B91

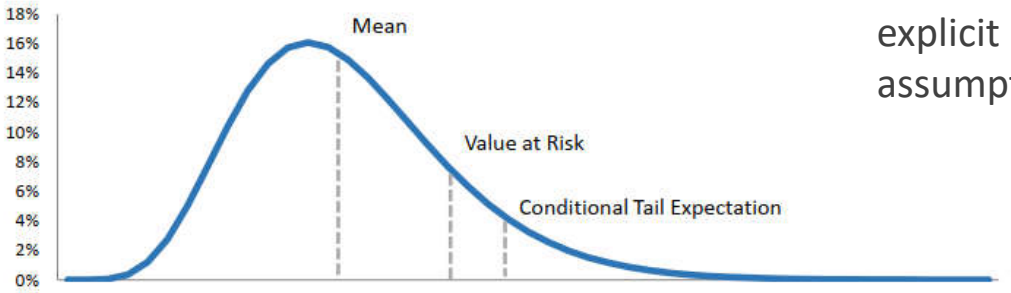
An entity shall disclose the confidence level used to determine the risk adjustment for non-financial risk. If the entity uses a technique other than the confidence level technique for determining the risk adjustment for non-financial risk, it shall disclose the technique used and the confidence level corresponding to the results of that technique.

IFRS 17.119

Risk Adjustment – In practice

- Those **methods** have been proposed in **[5]**
- Confidence Level (Value at Risk)
  - Conditional Tail Expectation (Tail Value at Risk)
  - Wang's Proportional Hazards Transform
  - Cost-of-Capital
- Another possible approach **[2]** is to benchmark with the Solvency II SCR (99.5% percentile) and assume Normality (99.5% percentile ≈ 2.58 * Standard Deviation)

Confidence level based methods



Source: **[9]**

- In **[9]** there is another approach called "Provision for adverse deviations" as an explicit margins on the Best Estimate assumptions (non-financial risks)

Risk Adjustment – Any doubts?

Solvency II vs IFRS 17

- Risk Margin vs Risk Adjustment
- One year view vs Life Time
- Include and Exclude Risk
- Gross vs Net basis

Methods & Techniques

- CoC, VaR and TVaR
- Calculation for LIC and LRC

Granularity

- Bottom-Up or Top-Down?
- For Insurance issued and Reinsurance contracts held

Disclosures

- Confidence Level
- Actuarial Communication

Aggregation

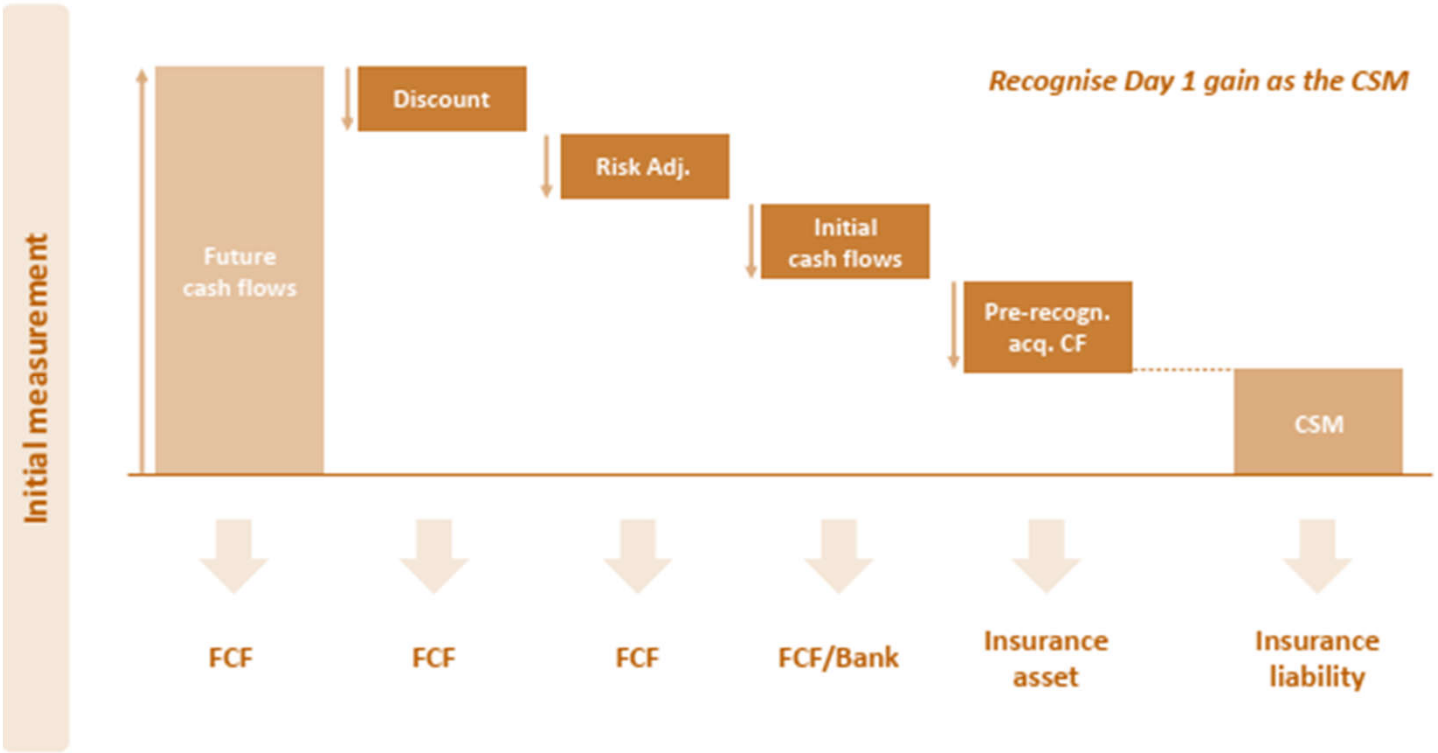
- Allocation method
- Aggregation and correlations

Contractual Service Margin (CSM)

- Unearned risk-adjusted **expected profit**
- CSM **cannot be negative**
- CSM is expected and could change for changes in estimates of future cash-flows (not for changes in discount rates). Therefore, don't recognise an immediate gain, but over the time as the Entity satisfies its obligation → **No day 1 profit**
- CSM is amortised over **coverage period** in proportion to service provided (insurance coverage or benefit)
- CSM released in year T = (expected release of **coverage units** in T) / (sum of expected coverage units in all years)

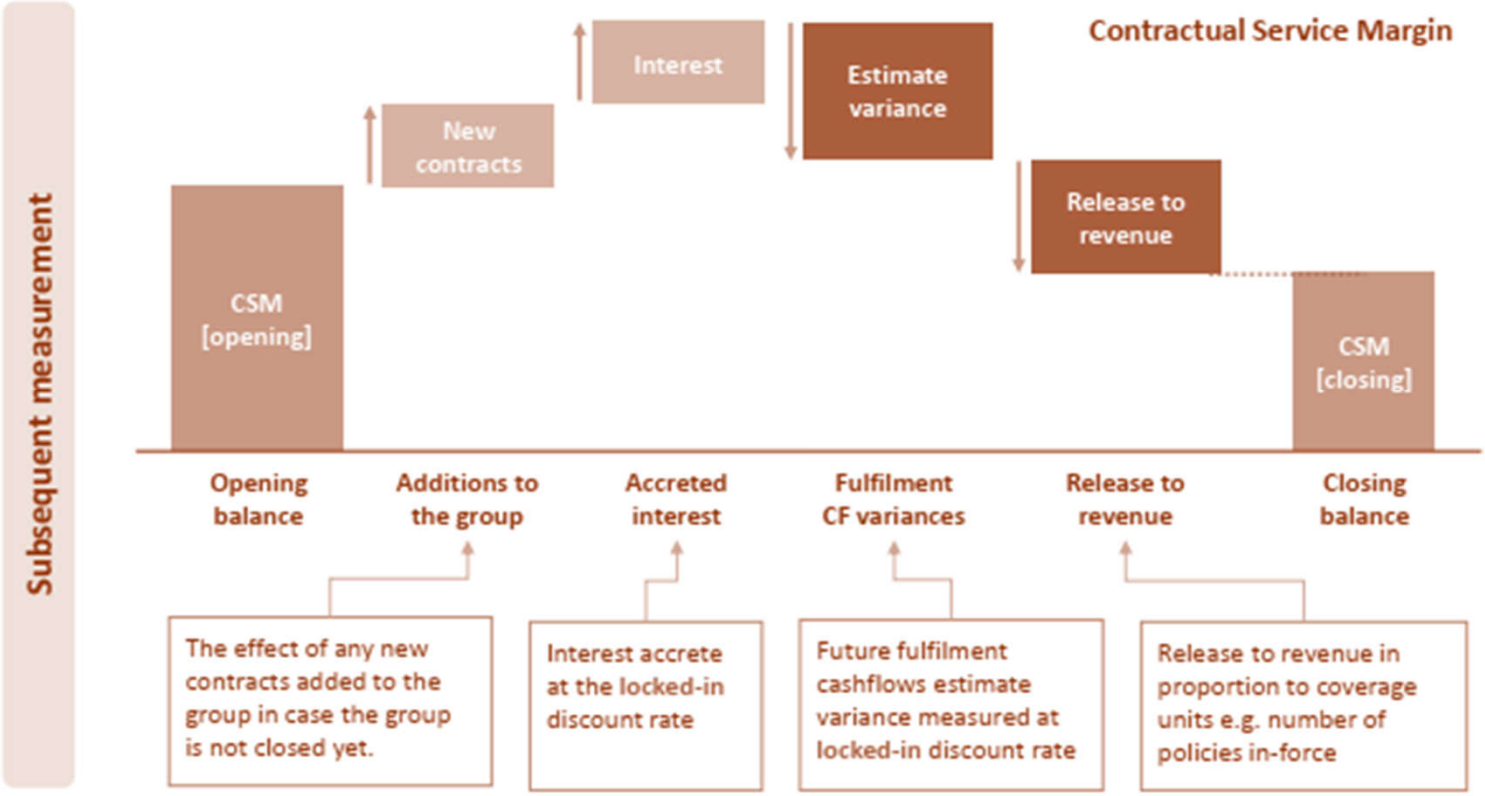
Coverage Unit → quantity of benefits provided under a contract

CSM – Initial measurement for Non-Onerous contracts



Source: [9]

CSM – Subsequent measurement for Non-Onerous contracts



Source: [9]

An illustrative Case Study

- UoA: MTPL/Cars/Non-Onerous/GMM
- Coverage period: 12 month
- GWP: 1mln/€
- Initial cash flows (or expected BE claims): 720k/€
- Discounting: assuming to exclude this effect to keep the Case Study simple
- Risk Adjustment: 120k/€
- Acquisition Cost: 5% (i.e., 50k/€)

Assumption: Acquisition cost paid immediately after the initial recognition and linear payment pattern (60k/€ per month)

An illustrative Case Study – Initial recognition

In	0€
Out	0€
LRC	-110k/€
Cash-in	-1mln/€
Cash-out	890k/€
LIC	0€
LRC - CSM	110k/€

- Initial cash flows
- Acquisition Cost
- Risk Adjustment

An illustrative Case Study – when premium is received

In	950k/€
Out	950k/€
LRC	840k/€
Cash-in	0€
Cash-out	840k/€
LIC	0€
LRC - CSM	110k/€

- Initial cash flows
- ~~Acquisition Cost~~
- Risk Adjustment

An illustrative Case Study – subsequent measure (3 month later)

In	950k/€
Out	936k/€
LRC	660k/€
Cash-in	0€
Cash-out	660k/€
LIC	175k/€
LRC - CSM	101k/€
P&L	**14k/€**

Other Assumptions

- **Outstanding Claims Reserve: 150**
- **No change in assumption for the FCF**
- **Risk Adjustment (LIC) = 25**
- **Earning Pattern: linear**

P&L for Local/IFRS4

- IN = 950k/€
- UPR= 712.5k/€
- Claims Reserve/BE=150k/€

→ **87.5k/€**

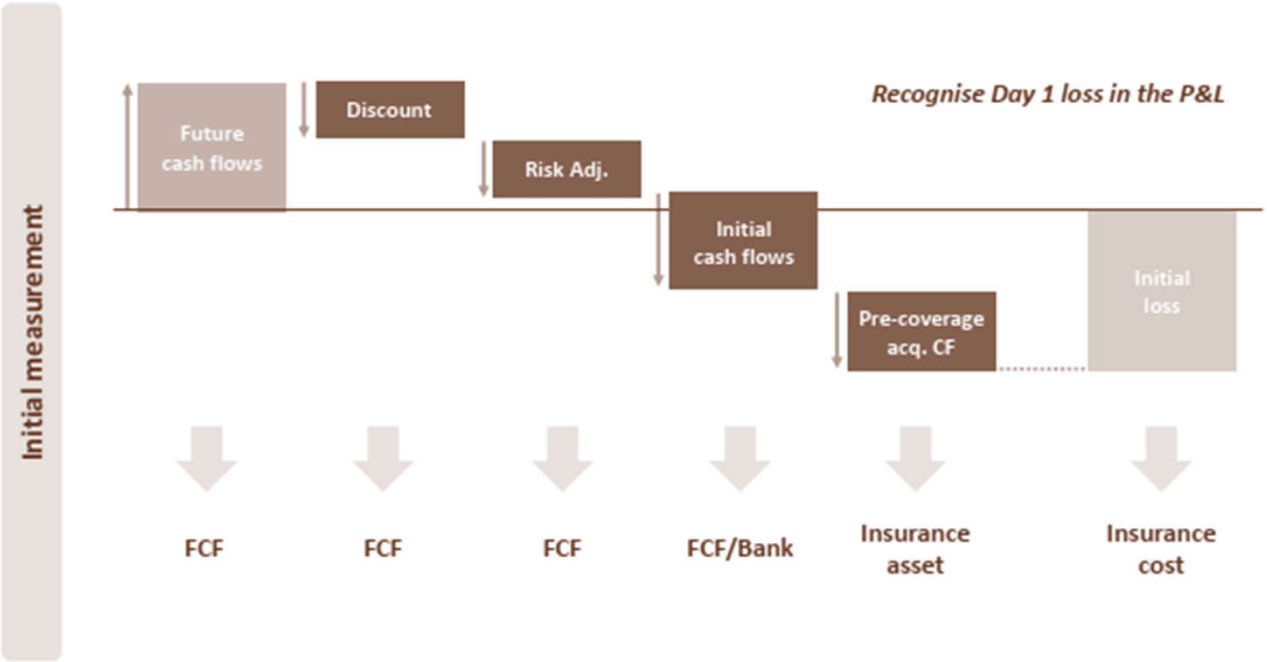
For Onerous contracts

Expected value of future cash flows	Expected value (explicit, unbiased, probability weighted estimate) of the future cash flows (CF) that will arise as the insurer "fulfils" the insurance contract
Discounting	Discount future cash flows using rates to reflect the characteristics of the liabilities in terms of timing, currency and liquidity
Risk adjustment (RA)	Reflect compensation entity requires for uncertainty inherent in the cash flows. Quantifies the value difference between certain and uncertain liability
~~Contractual Service Margin (CSM)~~	~~Contractual service margin to prevent gain on policy inception. Unearned profits recognized over coverage period~~

The General Model is a default IFRS 17 insurance liabilities measurement approach

CSM – Initial measurement for Onerous contracts

If the **CSM would be negative** → Onerous contracts, so the **loss must be recognised immediately** and subsequently adjusted

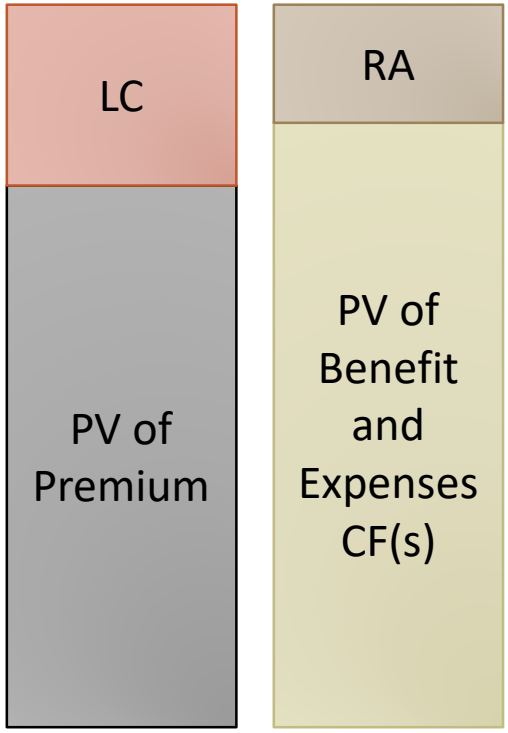


Source: **[9]**

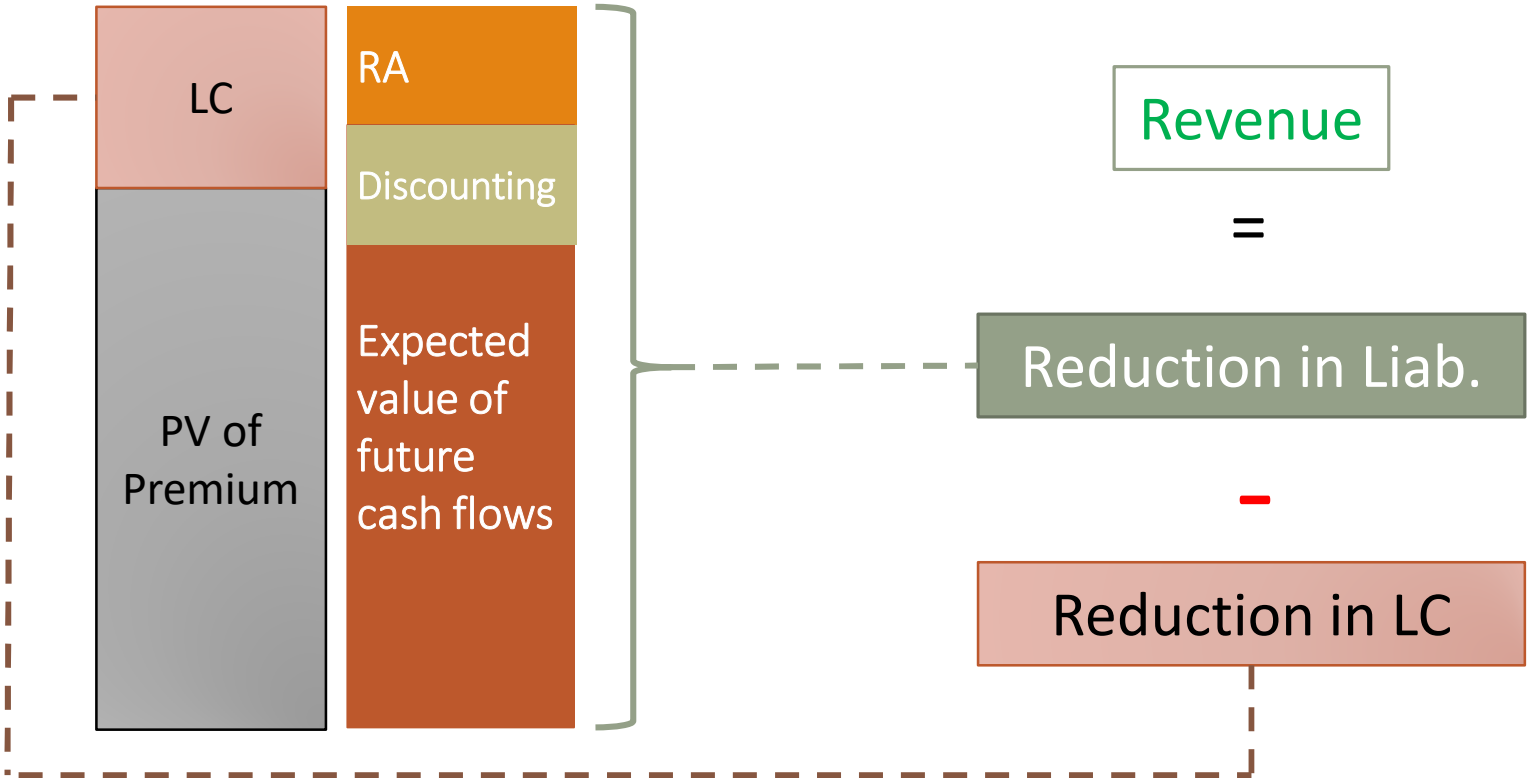
CSM – Subsequent measurement for Onerous contracts

During the lifetime of a contract

- The CSM can decrease to zero due to unfavourable changes in CF(s)
- If the contracts become profitable again due to favourable changes, first the recognised losses need to be earned back. Then, a new CSM can be created



Revenue under GMM



LRC – Subsequent measurement

Non-Onerous UoA

LRC_{T+1} = FCF_{T+1} + CSM_{T+1}

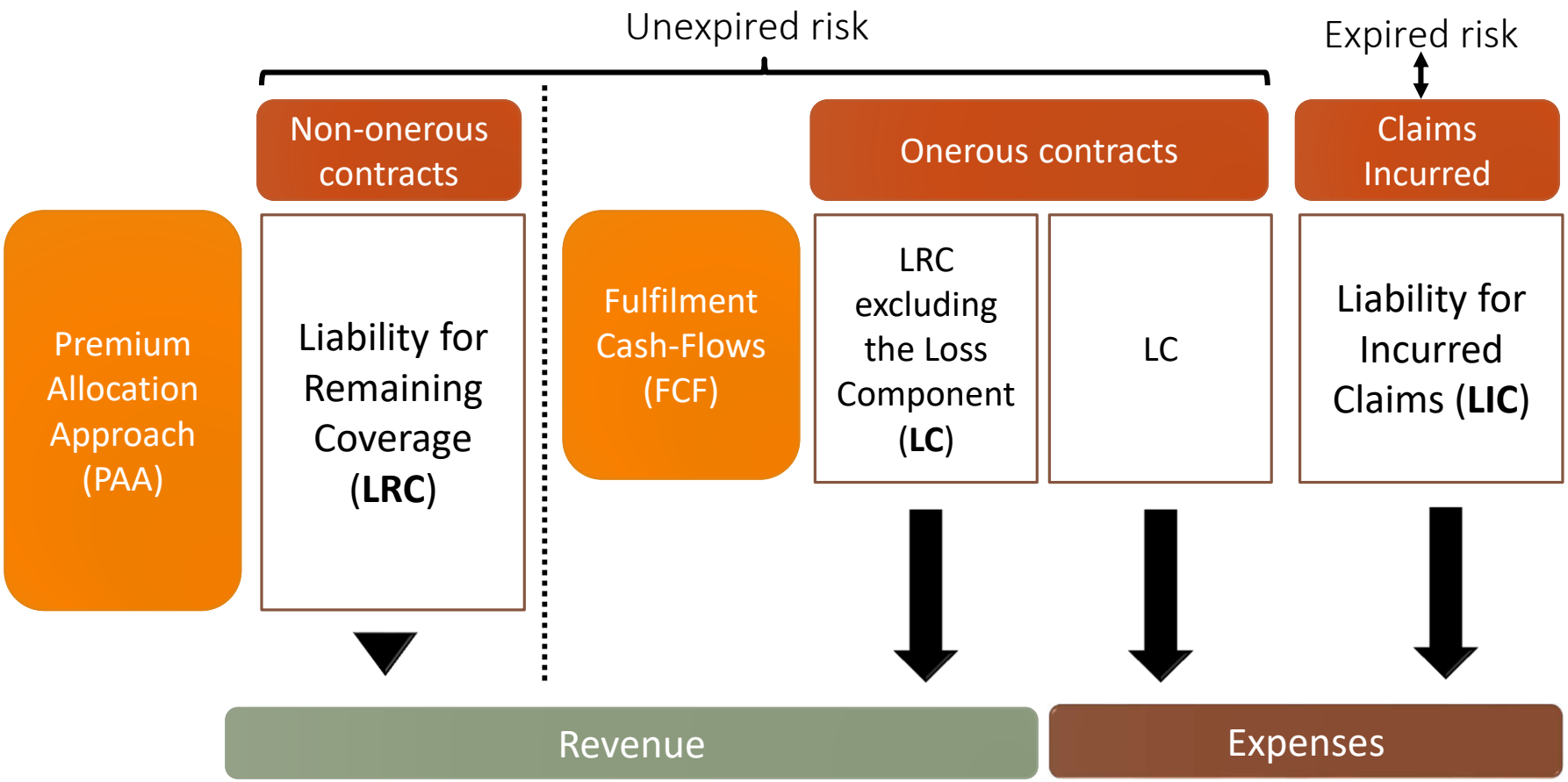
Onerous UoA

LRC_{T+1} = FCF_{T+1}

- Loss Component must be recognised immediately
- There could be a "double-view": with and without the LC

5 – Premium Allocation Approach (PAA)

Insurance Liabilities – Components under PAA



PAA Eligibility

PAA or not PAA,
that is the question

Duration criterion

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

IFRS 17.53b

Or

Measurement criterion

PAA and GMM do not differ materially

IFRS 17.53a

&

Variability criterion

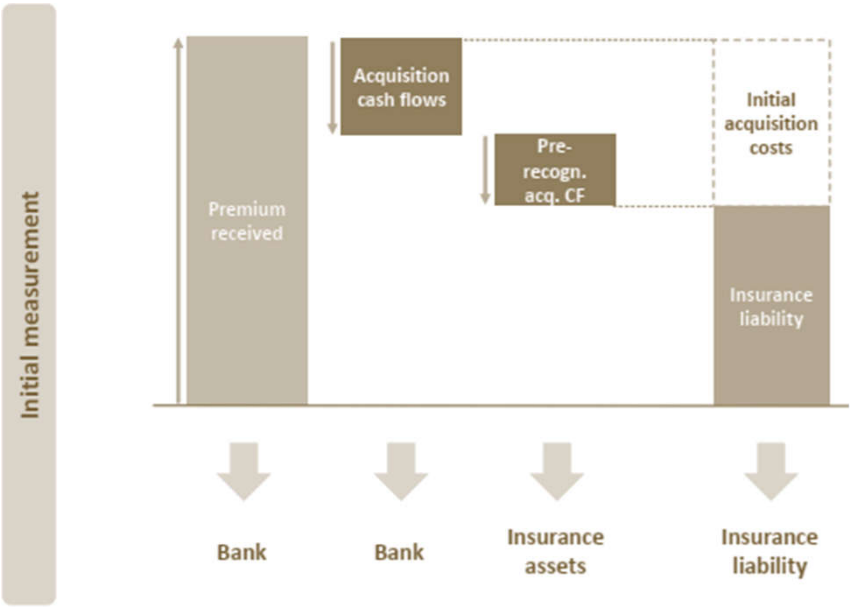
The criterion is not met if Entity expect significant variability in the FCF

IFRS 17.54

"For contracts issued to which an entity applies the premium allocation approach, the entity shall assume no contracts in the portfolio are onerous at initial recognition, **unless facts and circumstances indicate otherwise**. (…)

IFRS 17.18

Initial measurement for Non-Onerous contracts

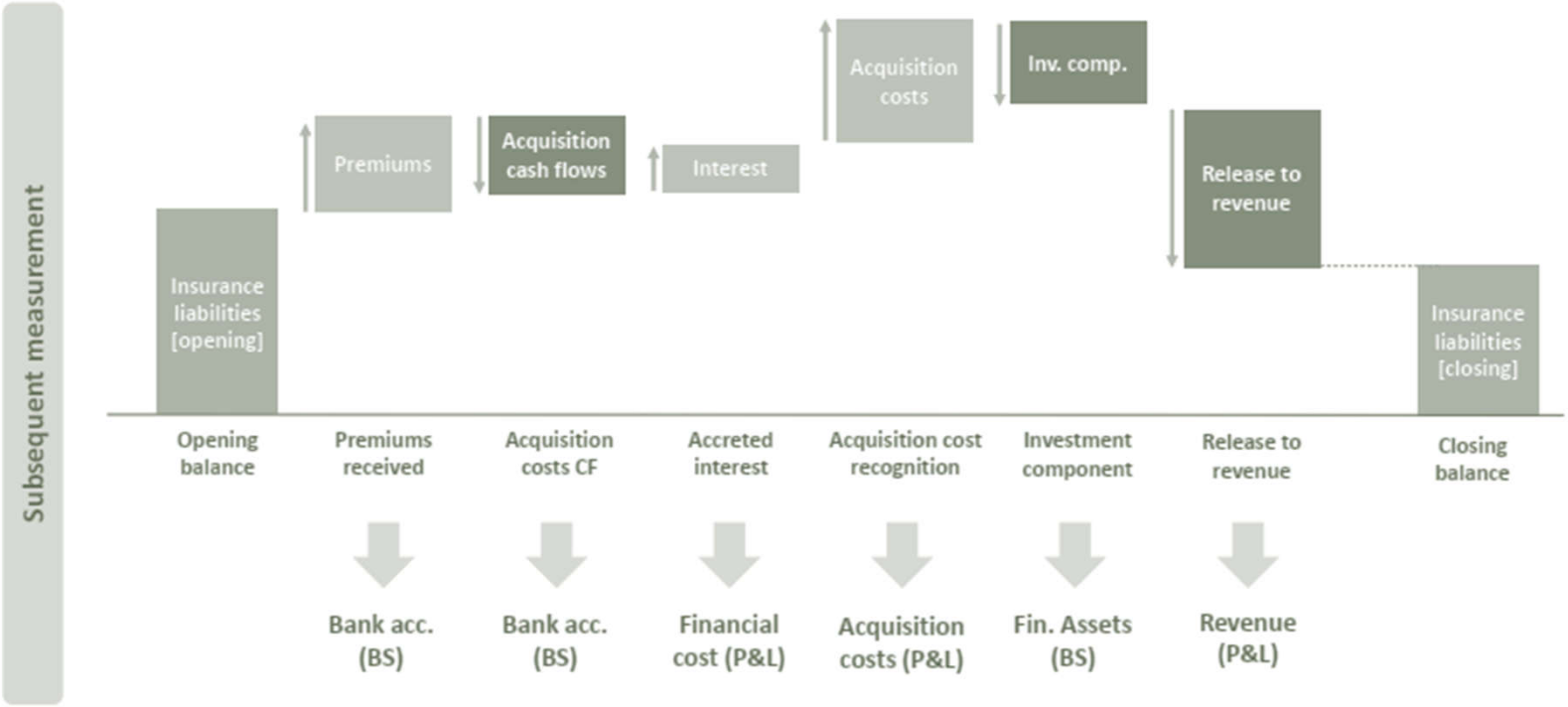


Source: [9]

- 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)
- Implicit CSM and Risk Adjustment
- Decrease by passage of time
- PAA reserves may result in a similar outcome to IFRS 4 UPR method

Profit in the P&L arises generally with a 6 months delay for 1-year contract and linearly for other durations

Subsequent measurement for Non-Onerous contracts

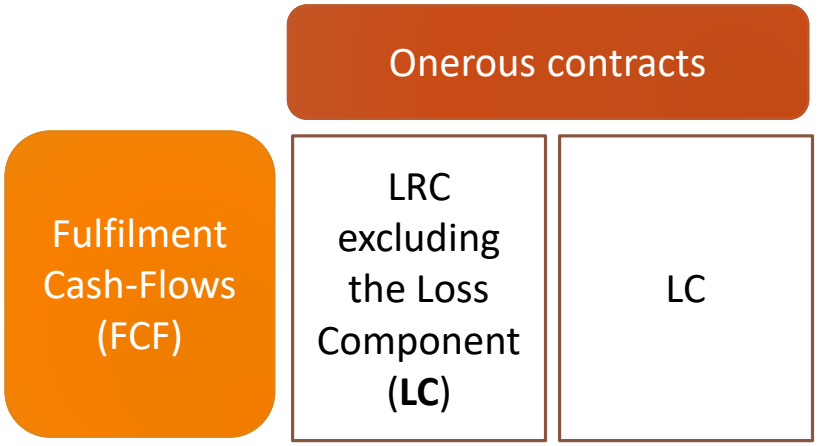


Source: **[9]**

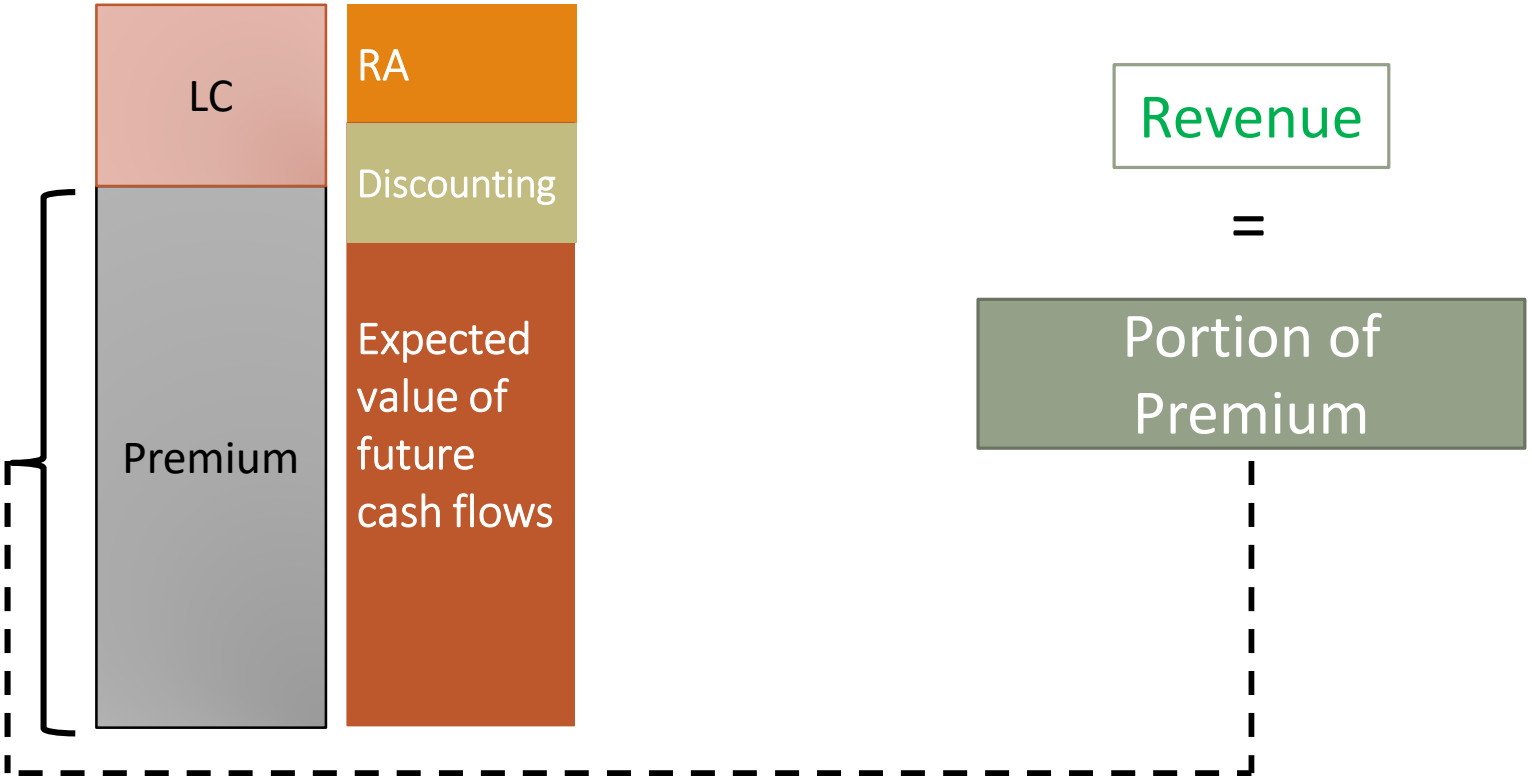
Initial measurement for Onerous contracts

For Onerous contracts or contracts that become onerous over the time, as for the LIC, **PAA is applicable unless**:

- Existing Combined Ratio (gross of RI) calculations
- But need to be on a consistent basis (risk adjusted, discounted, consistent expense assumptions)
- Pricing and underwriting models”

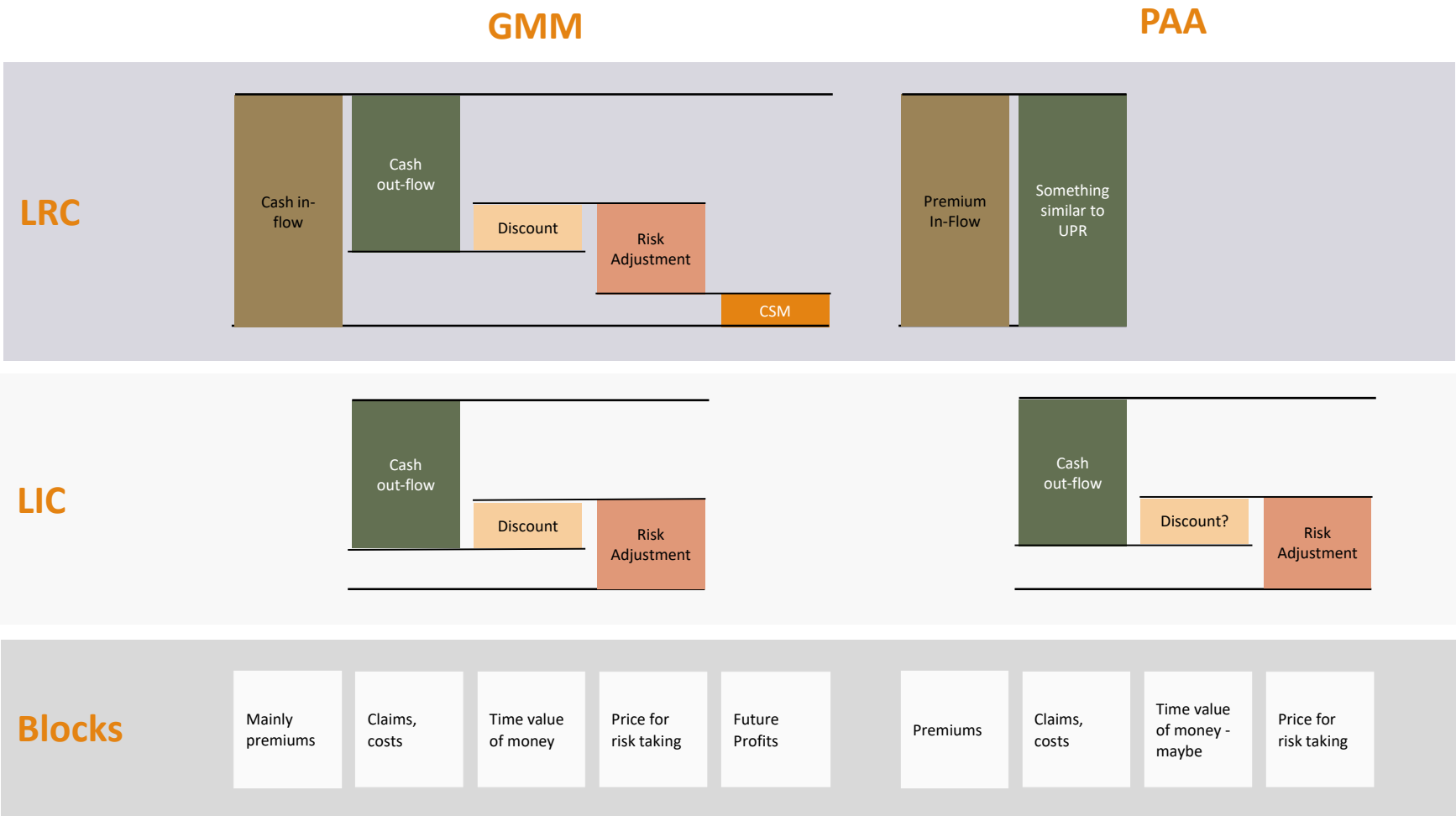


Revenue under PAA



6 – GMM VS PAA - Summary

GMM and PAA comparison



Differences between PAA and GMM

Area	General Model	PAA
Liabilities	LIC and LRC	LIC (measured at FCF value) and LRC
Application	All except contract with Direct Participation Features (DPF)	Non-DPF contract and insurance coverage <= 1 year or >1 year but check Measurement and Variability criterion
Initial Meas.	PVFCF+RA+CSM	Premium – Initial Acq. Costs
Subseq. Meas.	PVFCF+RA+CSM	Recurrent formula (slide 39)
CF project.	YES	NO (except for the LC and LIC)
Risk Adj.	YES	NO (except for the LC and LIC)
CSM	YES (if non-onerous)	NO
Immediate Acq. Cost	No	YES
Revenue	In line with the Insurance service measured with claims, expenses, etc.	Pro rata in proportion to the risk release
OCT	NO	Yes (facts and circumstances)

7 – Reinsurance Focus

Introduction

IFRS 17 Appendix A defines a Reinsurance Contract as:
"An insurance contract issued by one entity (the reinsurer) to compensate another entity for claims arising from one or more insurance contracts issued by that other entity (underlying contracts)."

We have a distinction between **"reinsurance issued"** and **"reinsurance held"**

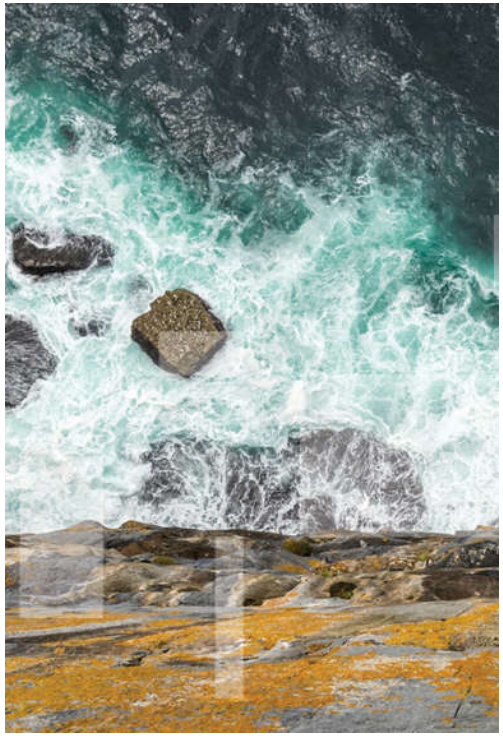
Reinsurance Issued:
"A reinsurance contract is a type of insurance contract. The Board identified no reason to apply different requirements to reinsurance contracts from those applied to other insurance contracts an entity issues. Consequently, **IFRS 17** requires entities that issue reinsurance contracts to use the same recognition and measurement approach as they use for other insurance contracts."

IFRS 17. BC 296

IFRS 17	Solvency II
▪ IFRS requires a completely separate measurement ▪ Risk Adjustment for Reinsurance Contract ▪ Requires a more rigorous calculation ▪ Contract Boundaries ≠ Underlying Business	▪ Insurance contracts are presented net of reinsurance ▪ Risk Adjustment (net basis) ▪ Allows a simplified calculation (using ratios) ▪ Contract Boundaries ~ Underlying Business

Reinsurance mismatches

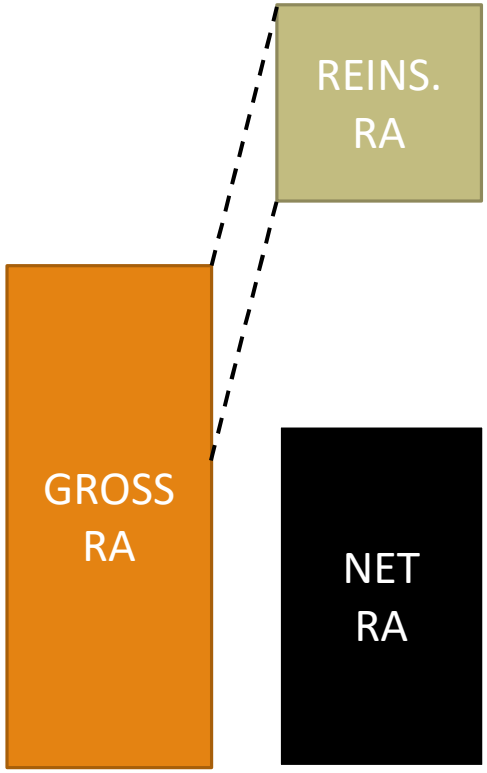
- **Different models** – reinsurance held does not have to be measured with the same model as related insurance contracts. Additionally, the VFA cannot be applied to the reinsurance held
- **Contract boundaries** – contract boundary of the reinsurance contract held can be different that the contract boundary of the related insurance.
- **Grouping** – Reinsurance contracts held can follow different grouping that do not map one-to-one with the related insurance contracts groups
- **Recognition** - there are different reinsurance held recognition rules comparing to the related insurance contract recognition



Focus Risk-Adjustment

IFRS 17.64:
Instead of applying paragraph 37, an entity shall determine the risk adjustment for non-financial risk so that it represents the amount of risk being transferred by the holder of the group of reinsurance contracts to the issuer of those contracts

Main consequence
Reinsurer share in RA cannot be calculated in separation
from underlying contracts.
For proportional reinsurance (quote share) a percentage of gross RA can be a good proxy for reinsurer risk (depending on the size of risks on entity's share).



8 – References

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Grazie

Rocco Roberto Cerchiara
Università della Calabria
cerchiara@unical.it

Vittorio Magatti
Attuario - Dottore di Ricerca
vittorio.magatti@gmail.com