# Decoding IFRS 17 for Casualty Actuaries

May 23, 2019

# Agenda

I. Background of IFRS

II. Overview of IFRS 17

III. IFRS 17 Measurement Model

IV. Premium Allocation Approach – Deep Dive

V. IFRS 17 Implementation Challenges

# I. Background of IFRS

# I. Background of IFRS : Why do we need IFRS 17?

## Reflect fundamental economics

- Relevant and transparent information
- Updated assumptions
- Options and guarantees

## Increase transparency about profitability

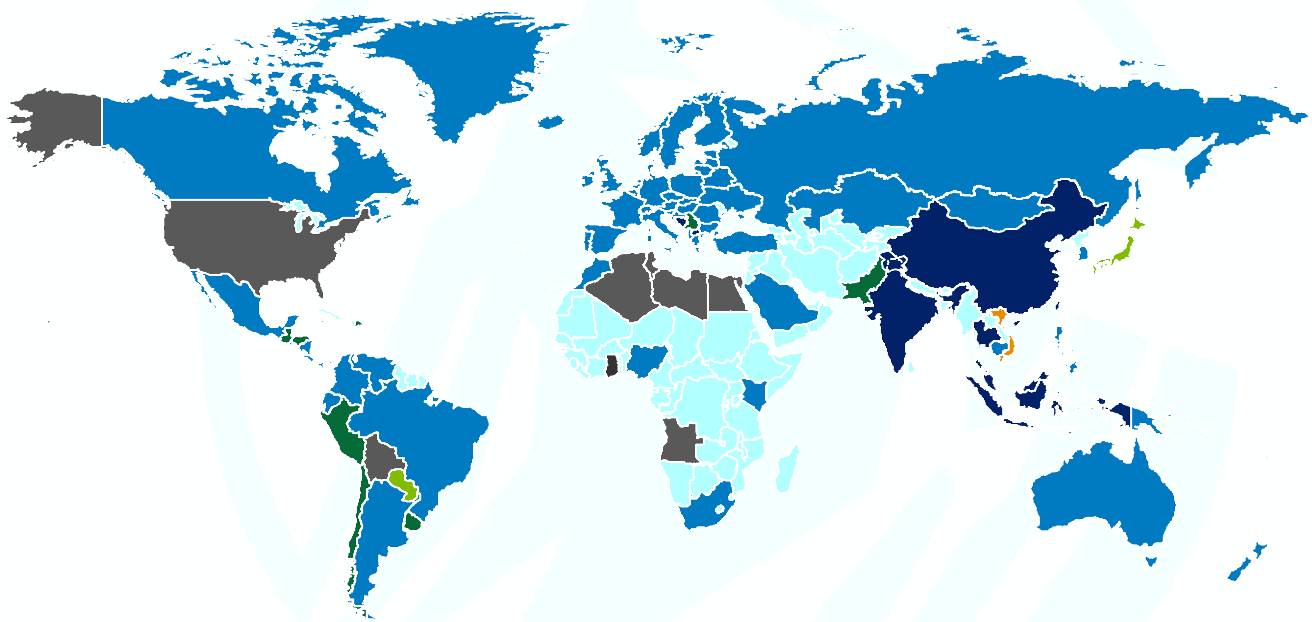
- Source of earning type of income statement
- Cohort is divided by at-issue profitability

## Increase comparability

- Increase comparability among insurers
    - IFRS companies report insurance contracts using different practices
- Increase comparability among subsidiaries by consolidating with the same practices
- Increase comparability with other industries
    - Revenue include deposits
    - Revenue reported on a cash basis not reflecting services provided

# I. Background of IFRS : Where Are IFRS Adopted?

- Many countries adopted IFRS with the notable exceptions below
  - Not adopted in US
  - Optional for Japan



Full adoption of IFRS

IFRS not allowed for domestic issuers or for statutory reporting

IFRS is voluntary (Local GAAP, if not used)

IFRS is adopted, insurance companies subject to alternate accounting standard

Reporting based on IAS standards

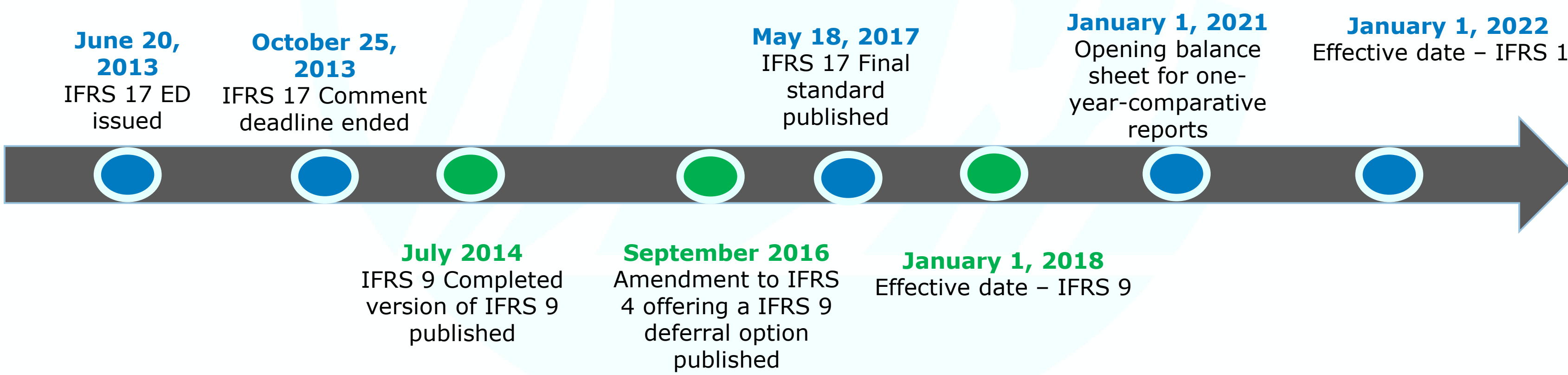
National standards in line with IFRS, either no or a pending timetable for full adoption

# I. Background of IFRS : When Will IFRS 17 and IFRS 9 Be Effective?

- IFRS 17 applies to virtually all insurance contracts (including reinsurance contracts) that an entity issues and to reinsurance contracts that it holds

- IFRS 9 covers other assets and liabilities of an insurer, such as financial assets and financial liabilities.
  - IFRS 9 is effective from January 1, 2018 but entities with significant insurance activities can be eligible for the option of deferring IFRS 9 to be effective from January 1, 2022

**Timeline for IFRS 17 IFRS 9**



# II. Overview of IFRS 17

# II. Overview of IFRS 17: Level of Aggregation

At least one cohort for each combination of portfolio, issue year, and profitability grouping.

At initial recognition

**Portfolio**

comprises contracts:
a) subject to similar risks; and
b) managed together

**(12 months) Group**

An entity shall not include contracts issued more than one year apart in the same group

| Onerous contracts | No significant probability of becoming onerous | Other contracts |
| --- | --- | --- |
| loss is recognized in P/L immediately | CSM is recognized and released as insurance service is provided | |

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

Groups are established at initial recognition, and are not reassessed subsequently.
For PAA approach, assume no contracts are onerous at initial recognition, and reassess subsequently.

# II. Overview of IFRS 17: Balance Sheet

In current balance sheet, there are multiple line items, inconsistent terminology and inconsistent measurement, hence it is difficult to understand changes.

| IFRS 4 Balance Sheet |
|---|
| Financial Assets |
| Deferred Acquisition Costs |
| Premium Receivable |
| Reinsurance Assets |
| Other Assets |
| **Total Assets** |
| Insurance Liabilities |
| Unearned Premium |
| Other Liabilities |
| Equity |
| **Total Liabilities and Equity** |

Explicit deferred acquisition costs asset

Reinsurance in assets position netted with reinsurance in liability position

Insurance contracts in assets position netted with insurance contracts in liability position

| IFRS 17 Balance Sheet |
|---|
| Financial Assets |
| Reinsurance Assets |
| Other Assets |
| **Total Assets** |
| Insurance Liabilities |
| Other Liabilities |
| Equity |
| **Total Liabilities and Equity** |

Groups of insurance and reinsurance contracts in an asset position presented separately from those in a liability position

Deferred acquisition costs, premium receivable and unearned premiums are included in the measurement of insurance contracts

# II. Overview of IFRS 17: Statement of Comprehensive Income

## IFRS 17 source-of-earning type income statement has richer information content with amounts that will be more relevant and more comparable.

| Statement of Comprehensive Income | |
|---|---|
| Insurance revenue | X |
| Insurance service expenses | (X) |
| **Insurance service result** | **X** |
| Insurance finance income | X |
| Insurance finance expenses | (X) |
| **Net finance result** | **X** |
| **Other profit and loss** | **X** |
| Corporate tax | (X) |
| **Profit after tax** | **X** |
| Other comprehensive income | (X) |
| **Total comprehensive income** | **X** |

- Release in CSM
- Release in RA
- Expected claims excluding investment components
- Expected expenses
- Insurance acquisition costs incurred

- Actual claims incurred excluding investment components
- Actual expenses incurred
- Insurance acquisition costs incurred
- Onerous contracts

Contracts without participation features
- Interest accretion (based on locked in rates) for CSM, BEL and RA (if split)
- Effect of discount rate changes (that are disaggregated into P&L)

Contracts without direct participation features
- Interest accretion for CSM (based on locked in rates), BEL and RA (if split) under Effective Yield / Projected Crediting Rate Approach
- Effect of discount rate changes (that are disaggregated into P&L)

- Effect of discount rate changes (that are disaggregated into OCI)

# II. Overview of IFRS 17: IFRS 17 Disclosure And Reporting

## IFRS 17 requires to disclose qualitative and quantitative info about:

- ✓ Recognized amounts (P&L, OCI, Liability roll-forward)
- ✓ Effect of transition due to modified retrospective approach and fair value approach
- ✓ Significant judgments
- ✓ Nature and extent of risks (measurement and mitigation), including sensitivity analysis and claims development

| IFRS 4 | Yr1 | Yr2 | Yr3 | Total |
|---|---|---|---|---|
| Premiums | 15,000 | - | - | 15,000 |
| Investment income | 1,500 | 1,281 | 1,677 | 4,458 |
| Incurred claims & expenses | (170) | (171) | (18,080) | (18,421) |
| Change in insurance liabilities | (16,048) | (744) | 16,792 | - |
| **Profit or loss** | **282** | **366** | **389** | **1,037** |
| Other comprehensive income | - | - | - | |
| **Comprehensive income** | **282** | **366** | **389** | **1,037** |

| IFRS 17 | Yr1 | Yr2 | Yr3 | Total |
|---|---|---|---|---|
| Insurance revenue | 320 | 339 | 386 | 1,045 |
| Incurred claims & expenses | (8) | - | - | (8) |
| **Insurance service result** | **312** | **339** | **386** | **1,037** |
| Investment income | 1,500 | 1,281 | 1,677 | 4,458 |
| Insurance finance expenses | (1,500) | (1,281) | (1,677) | (4,458) |
| **Net financial result** | - | - | - | - |
| **Profit or loss** | **312** | **339** | **386** | **1,037** |
| Other comprehensive income | - | - | - | - |
| | **312** | **339** | **386** | **1,037** |

## Disclosure [100, 103, 105]: reconciliation by type of liability

illustrative example

| | Liabilities for remaining coverage | | Liabilities for incurred claims | Total |
|---|---|---|---|---|
| | Excluding onerous contracts component | Onerous contracts component | | |
| Insurance contract liabilities 20X0 | 7,375 | 290 | [illegible] | [illegible] |
| Insurance revenue | (1,608) | | | |
| Insurance service expenses | 15 | (41) | | |
| *Incurred claims and other expenses* | | *(11)* | | |
| *Amortization of insurance acquisition cash flows* | *15* | | | |
| *Losses on onerous contracts and reversals of those losses* | | *(30)* | | |
| *Changes to liabilities for incurred claims* | | | | |
| Investment components | *(200)* | - | | |
| Insurance service result | (1,793) | (41) | | |
| Insurance finance expenses | 488 | 17 | | |
| Total changes in the statement of comprehensive income | (1,305) | (24) | | |
| Cash flows | | | | |
| Premiums received | 1,880 | | | |
| Claims and other expenses paid | | | | |
| Insurance acquisition cash flows | (19) | | | |
| Total cash flows | 1,861 | - | | |
| Insurance contract liabilities 20X1 | 7,932 | 266 | 1,936 | 10,134 |

## Disclosure [109]: Expected CSM release pattern

illustrative example

| Expected contractual service margin recognition (In thousand of CU) | 20x2 | 20x3 | 20x4 | 20x5 | ... |
|---|---|---|---|---|---|
| *Cohort 1* | *1,367* | *1,248* | *1,150* | *1,069* | ... |
| *Cohort 2* | - | - | - | - | ... |
| *Cohort 3* | *1,794* | *1,587* | *1,418* | *1,294* | ... |
| Expected contractual service margin recognition | 3,161 | 2,834 | 2,567 | 2,363 | ... |

# III. IFRS 17 Measurement Model

# III. IFRS 17 Measurement Model: The General Model a.k.a. Building Blocks Approach ("BBA")

All insurance contracts measured as the sum of ("building blocks"):

**•Fulfilment cash flows (FCF)**

1. Present value of probability-weighted expected cash flows-reflects financial risk
2. Plus an explicit risk adjustment for non-financial risk (i.e. insurance risk)

**•Contractual service margin (CSM)**

3. The unearned profit from the contracts

This can be more simply paraphrased as the CSM at the point of sale of the contract is equal to the <u>opposite</u> of the BEL plus the risk adjustment:

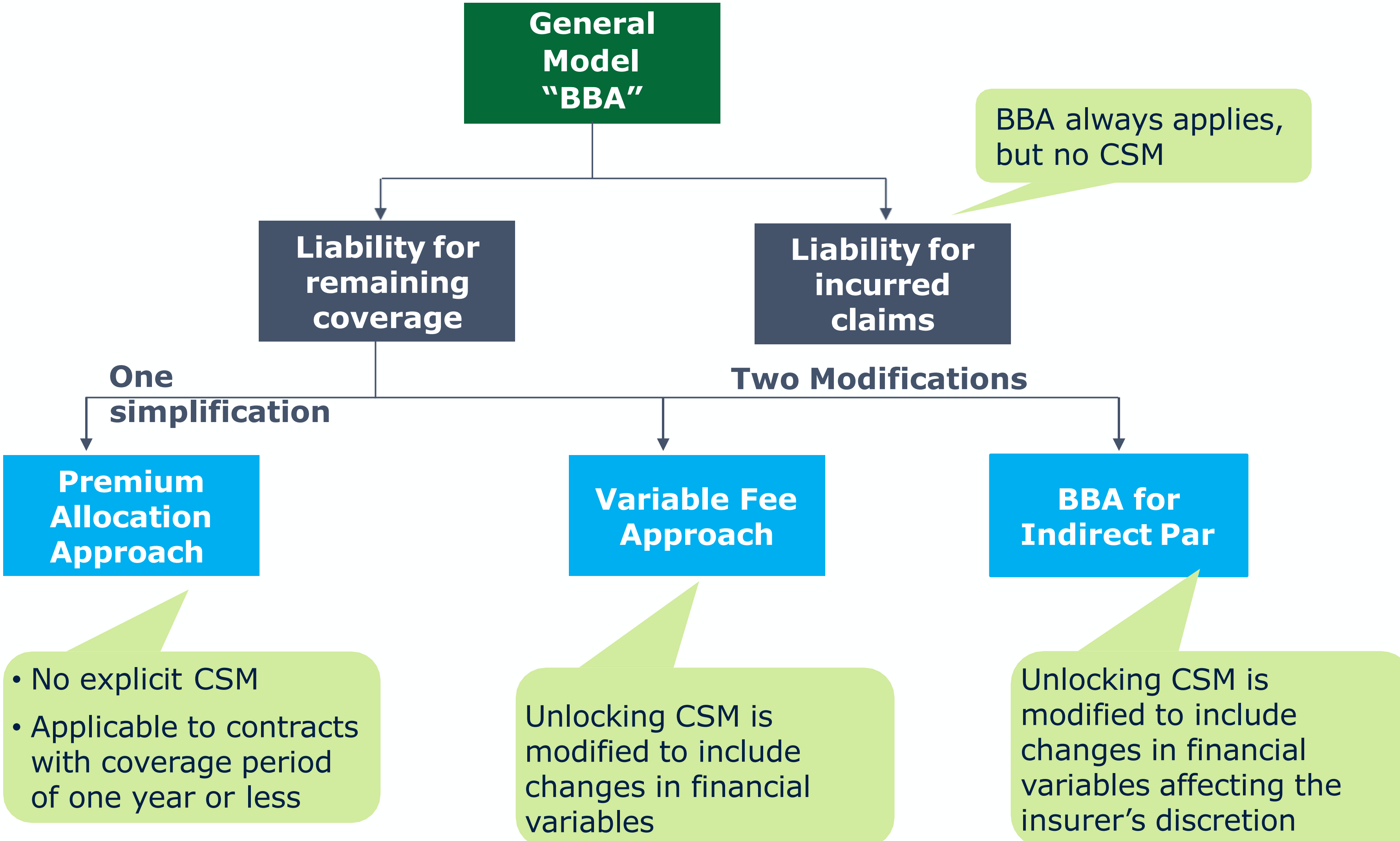
1 PV of future cash flows + 2 Risk adjustment + 3 Unearned profit = **IFRS 17 liability**

**Fulfilment cash flows (FCF)** (1 + 2)

**Contractual service margin (CSM)** (3)

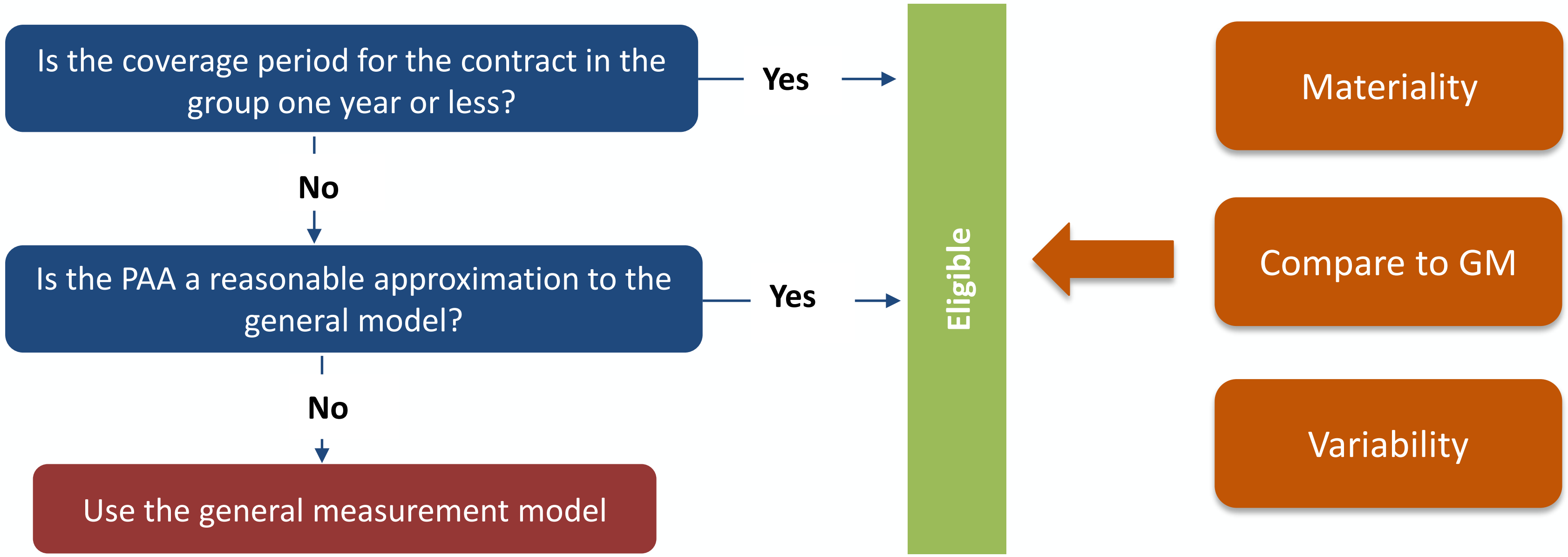
*CSM is solved to make the totally liability = 0 at time zero*

# III. IFRS 17 Measurement Model: Modification and Simplification of the General Model



# III. IFRS 17 Measurement Model: Eligibility for Applying PAA

**An entity may apply a simplified measurement approach, the Premium Allocation Approach, or PAA) to the liability for remaining coverage of some insurance contracts meeting specific criteria.** The flow chart below can be used to determine if an entity is permitted to apply PAA to measure a group of insurance contracts at inception of the group:




Reinsurance contracts held are also eligible to be measured using PAA. However, for reinsurance contracts held, the "one-year coverage period" criterion applies to the entire reinsurance treaty, rather than the underlying insurance contracts.

# III. IFRS 17 Measurement Model: Eligibility for Applying PAA

## Materiality

### IFRS Materiality Definition (IAS 1) – effective 1 Jan 2020

Information is material if omitting, misstating or obscuring it could reasonably be expected to **influence the decisions that the primary users of general purpose financial statements make** on the basis of those financial statements, which provide financial information about a specific reporting entity.

**The primary users of general purpose financial reporting are present and potential investors, lenders and other creditors**, who use that information to make decisions about buying, selling or holding equity or debt instruments, providing or settling loans or other forms of credit, or exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources.

For example, in order to prove that the multi-year group life contracts, we can argue from materiality perspective, that:

1. The revenue of multi-year group life product is small (e.g. <1%)
2. Gross profit of multi-year group life product is small (e.g. <5%)
3. Total assets of multi-year group life product is small (e.g. <2%)

# III. IFRS 17 Measurement Model: Eligibility for Applying PAA

## Compare to GM

**IFRS 17 does not provide a method for determining whether PAA is expected to produce a reasonable approximation of the general model, therefore, judgements are critical in assessing whether the fulfilment cash flows of contracts with a coverage period greater than one year vary significantly.** Factors that could drive the differences between general model and PAA:

| | | |
|---|---|---|
| 1 | Premiums: single vs. regular | Single premium contracts have significantly smaller differences |
| 2 | Level of premiums | Materiality is an absolute concept |
| 3 | Contract duration | The shorter duration the smaller the difference |
| 4 | Discount rates | The lower discount rate the smaller the difference |
| 5 | Ultimate loss | The higher loss the bigger the difference |
| 5 | Risk adjustment | The higher risk adjustment the bigger the difference |
| 5 | Risk distribution | The better PAA and CSM run-off pattern are aligned the smaller the difference |

**Suggestion:**

- For contracts that are currently under US GAAP FAS 60 short-duration should be able to apply PAA
- For contracts that are currently measured under other US GAAP classifications, or contracts with any ambiguity on pre-claim variability, we should apply general model instead of testing the difference between PAA and general model.

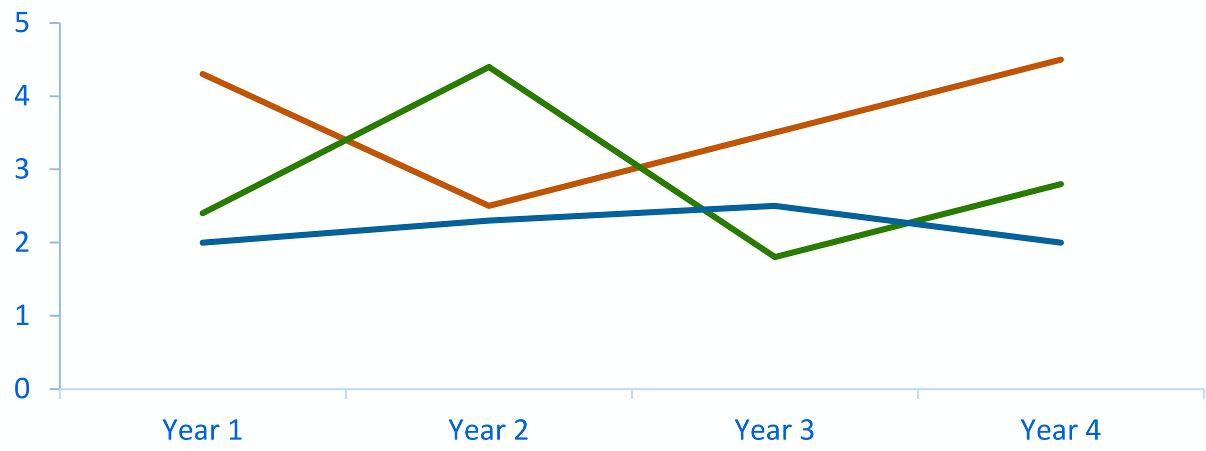
# III. IFRS 17 Measurement Model: Eligibility for PAA

## Variability

### Qualitative assessment:

- Patterns of the expected incurred claim costs and the release of the risk adjustment are significantly different, during the coverage period.
- The pattern of expected incurred claim costs is strongly uneven and the Contractual Service Margin (CSM) is significant under the general model.
- A long expected payout pattern over the coverage period and/or a high interest rate environment.
- There is a significant investment service, embedded options or derivatives or other non-insurance component to the contract, or there is a significant profit sharing component.
- Coverage is deferred or longer duration contracts generally
- Cancellation of policies within the coverage period are significant or lapses through non-payment of future premiums are an issue, when premium has been paid upfront.
- Contracts with level expected incurred claims and non-level indirect expenses.

### Quantitative assessment:



# IV. Premium Allocation Approach – Deep Dive

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

PAA applies to which of the following:

A. Incurred Claims

B. Remaining coverage

C. IBNP

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

PAA applies to which of the following:

A. Incurred Claims

**B. Remaining coverage**

C. IBNP

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

PAA simplifies the calculation of liability for remaining coverage by:

A. Exempting the insurer from explicitly accounting for CSM

B. Setting Risk Adjustment to zero

C. Both A & B

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

PAA simplifies the calculation of liability for remaining coverage by:

A. Exempting the insurer from explicitly accounting for CSM

B. Setting Risk Adjustment to zero

**C. Both A & B**

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

## An insurance contract is onerous at initial recognition if:

A. (expected PV of the future cash outflows) > (expected PV of future cash inflows)

B. (expected PV of the future cash outflows + risk adjustment) > (expected PV of future cash inflows)

C. risk adjustment < 0

# IV. Premium Allocation Approach – Deep Dive: Knowledge Check

An insurance contract is onerous at initial recognition if:

A. (expected PV of the future cash outflows) > (expected PV of future cash inflows)

**B. (expected PV of the future cash outflows + risk adjustment) > (expected PV of future cash inflows)**

C. risk adjustment < 0

# IV. Premium Allocation Approach – Deep Dive: Measurement of PAA insurance liability

## Liability at Initial Recognition

**Premium received at initial recognition**

***minus*** **Any acquisition costs**

***plus (or minus)*** **Any pre-coverage cash flows**

***plus*** **any onerous contract liability recognized**

## Liability at Subsequent Reporting Periods

**Previous liability**

***plus*** **the premiums received in the period**

***minus*** **insurance acquisition cash flows**

***minus*** **insurance contract revenue for coverage provided in that period**

***plus*** **any onerous contract liability recognized**

***minus*** **any investment component paid or transferred to the liability for incurred claims**

***plus*** **any adjustment to reflect time value of money (if applicable)**

# IV. Premium Allocation Approach – Deep Dive: Measurement of PAA insurance liability

### Interest accretion

- Accretion of interest using the **initial recognition discount rate** when there is a **significant financing component**
- The accretion of interest is not required when there is **one year or less** between the **premium due date** and the time when the **coverage** that relates to that premium **occurs**

### Group of onerous contracts

- If facts and circumstances indicate that the group of contracts under PAA could be onerous, a calculation of the liability for remaining coverage using the general measurement model is required
- The difference between this liability and the PAA liability will be reported as a loss component liability

### Liability for incurred claims

- Measured consistently with the general measurement model (including a risk adjustment) with no CSM because no remaining coverage relates to this liability
- Discounted if material; discounting is not required if 12 months run-off period or shorter as 12 months run-off period is deemed immaterial for discounting

**Direct attributable acquisition costs** may be expensed in P&L (instead of reduction in liability) when the coverage is one year or less (accounting policy choice)

# IV. Premium Allocation Approach – Deep Dive: Practical Application

**UPR**

- Continue to use unearned premium reserve (UPR) approach for eligible portfolios of contracts for future coverage.

**Acquisition Expenses**

- Adjust UPR for pre-coverage acquisition costs.
- This adjustment is intended to compensate for removal of DAC.
- Definition of pre-coverage acquisition costs may not be the same as in DAC.

**Cash Flow Basis**

- Adjust for timing of cash flows.
- Adjust liability for value of premiums not yet due reported in receivable and payables in current GAAP balance sheet.
- Accrete interest on UPR coverage if greater than one year.

# IV. Premium Allocation Approach – Deep Dive: Illustrative Example - 1

The example shows a portfolio of one year, single premium contracts, written uniformly during year one.

### Current GAAP: UPR and Undiscounted Claims Reserves

| | T in years | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Premium | 0 | 1000 | 0 | 0 | 0 | 0 |
| | Earnings pattern | 0% | 50% | 50% | 0% | 0% | 0% |
| | UPR | 0 | 500 | 0 | 0 | 0 | 0 |
| | DAC | 0 | 150 | 0 | 0 | 0 | 0 |
| 1 | UPR net of DAC | 0 | 350 | 0 | 0 | 0 | 0 |
| 2 | Claims Reserve | 0 | 225 | 375 | 225 | 75 | 0 |
| | Paid Claims and Expenses | 0 | 75 | 150 | 150 | 150 | 75 |
| 3 | Total Liability net of DAC | 0 | 575 | 375 | 225 | 75 | 0 |

### IFRS 17: Using Premium Allocation Approach

| | T in years | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Premium | 0 | 1000 | 0 | 0 | 0 | 0 |
| | Pre-coverage acquistion costs | 0 | 300 | 0 | 0 | 0 | 0 |
| 1 | Liability for Remaining Coverage | 0 | 350 | 0 | 0 | 0 | 0 |
| | Accreted interest | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Liability for Incurred Claims | 0 | 233 | 389 | 233 | 80 | 0 |
| | Paid Claims and Expenses | 0 | 75 | 150 | 150 | 150 | 75 |
| | Unwind of discount | 0 | 3 | 9 | 9 | 5 | 1 |
| | Change in RA | 0 | 23 | 16 | -16 | -15 | -8 |
| 3 | Total Liability | 0 | 583 | 389 | 233 | 80 | 0 |

**Legend**

1. Liability for remaining coverage equals to UPR less DAC
2. Liability for incurred claims differs from claims reserves by discount and risk adjustment
3. Overall impact on total liability is driven by change in value of claims reserves

# IV. Premium Allocation Approach – Deep Dive: Illustrative Example - 2

In this example the portfolio of short term contracts includes coverage exceeding 12 months and some are bound before their inception date. Using the building block approach the portfolio is unprofitable.

**Current GAAP: UPR and Undiscounted Claims Reserves**

| | T in years | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Premium | 100 | 500 | 400 | 0 | 0 | 0 |
| | Earnings pattern | 0% | 45% | 45% | 10% | 0% | 0% |
| | UPR | 0 | 550 | 100 | 0 | 0 | 0 |
| | DAC | 0 | 165 | 30 | 0 | 0 | 0 |
| 1 | UPR net of DAC | 0 | 385 | 70 | 0 | 0 | 0 |
| | Premium Deficiency Reserve | 0 | 39 | 7 | 0 | 0 | 0 |
| 3 | Claims Reserve | 0 | 223 | 322 | 225 | 75 | 0 |
| | Paid Claims and Expenses | 0 | 124 | 248 | 150 | 150 | 75 |
| 4 | Total Liability net of DAC | 0 | 646 | 399 | 225 | 75 | 0 |
| | Premiums in Receivables | | 400 | 0 | 0 | 0 | 0 |
| | Future premiums net of DAC | | 280 | 0 | 0 | 0 | 0 |
| 1 | UPR less receivables and Acq costs | | 105 | 70 | 0 | 0 | 0 |

**IFRS 17: Using Premium Allocation Approach**

| | T in years | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| | Premium | 100 | 500 | 400 | 0 | 0 | 0 |
| | Pre-coverage acquistion costs | 30 | 150 | 120 | 0 | 0 | 0 |
| 1 | Liability for Remaining Coverage | 70 | 105 | 70 | 0 | 0 | 0 |
| 2 | Accreted interest | 0 | 3 | 3 | 0 | 0 | 0 |
| | Onerous Contracts Charge | 17 | 40 | 7 | 0 | 0 | 0 |
| 3 | Liability for Incurred Claims | 0 | 231 | 334 | 229 | 76 | 0 |
| | Paid Claims and Expenses | 0 | 124 | 248 | 150 | 150 | 75 |
| | Unwind of discount | 0 | 3 | 8 | 7 | 2 | 0 |
| | Change in RA | 0 | 23 | 10 | -21 | -13 | 0 |
| 4 | Total Liability | 87 | 376 | 410 | 128 | 0 | 0 |

**Legend**

1. Liability for remaining coverage differs from UPR less DAC. The liability for remaining coverage is reduced for future premium cash flows.
2. Interest is accreted.
3. Liability for incurred claims differs from claims reserves by discount and risk adjustment.
4. Overall impact on total liability affected by both liability for past and future coverage

# V. Implementation Challenges

# V. IFRS 17 Implementation Challenges

- Determination of measurement model (GM vs PAA)
- Implementation of Discounting
- Calculation of Risk Adjustment
- Level of Granularity
- Presentation and Disclosure Requirements
- Modeling challenges for onerous contracts