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# IFRS 17 – without undue cost or effort?

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Workshop Session D3

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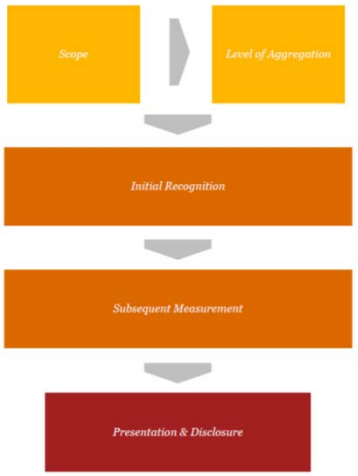
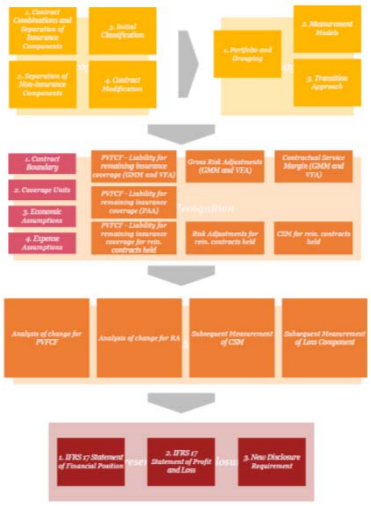
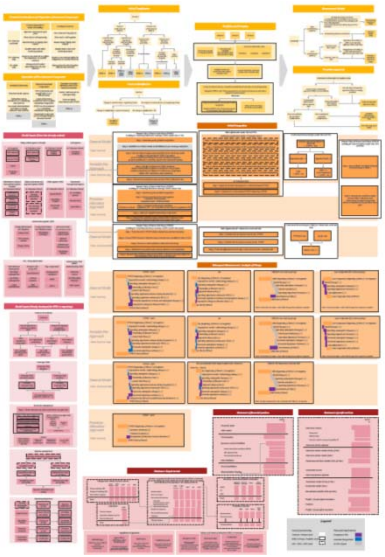
## IFRS 17 on a page?





# IFRS 17 – to stand still is to fall behind....

IFRS 17 is the biggest change to insurance reporting for decades

For many insurers, an opportunity to transform

For many actuaries, an opportunity to shine

But does it have to be so costly?

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## Our agenda and key themes

- One more year: the opportunity to modernise is still here – but for most insurers, the immediate focus is on getting over the line
- Areas of focus for smarter compliance
- What can we learn from China?

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# One more year

An opportunity to modernize reporting?

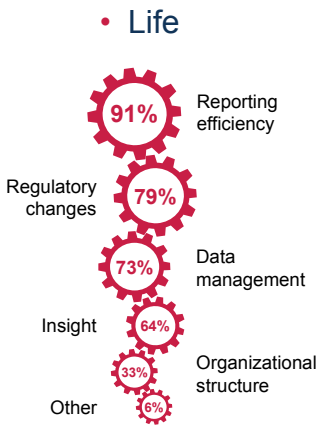
Or just focus on getting over the line?

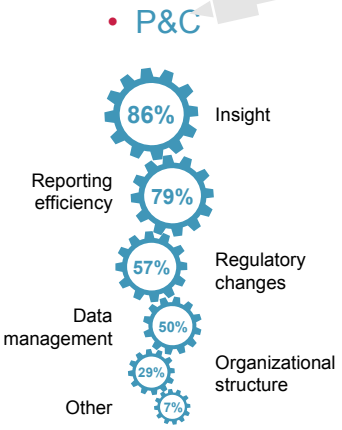


# Drivers for modernisation

Modernization drivers

- Multiple drivers are accelerating the pace of modernisation for the reporting function
- Not surprisingly regulatory change is a key catalyst for modernisation given IFRS 17, US GAAP targeted improvements and solvency change

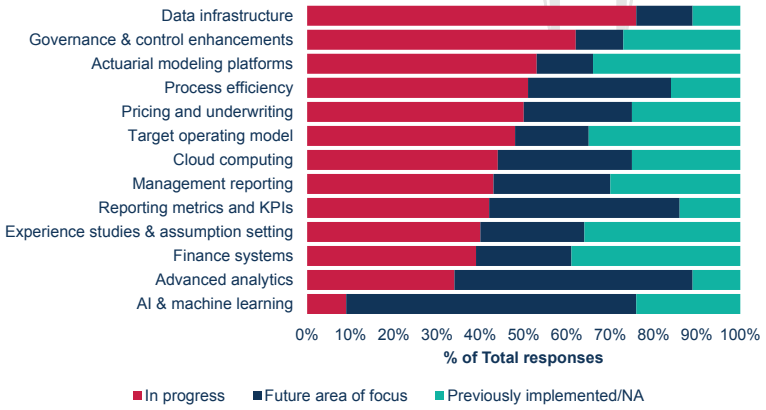


# Focus areas of modernization programmes

Modernization driver

- Main focus areas are implementation of foundational capabilities, e.g. data infrastructure, governance/controls and actuarial modeling platforms
- For future focus AI/Machine learning, Advanced analytics and Management reporting are the three top categories

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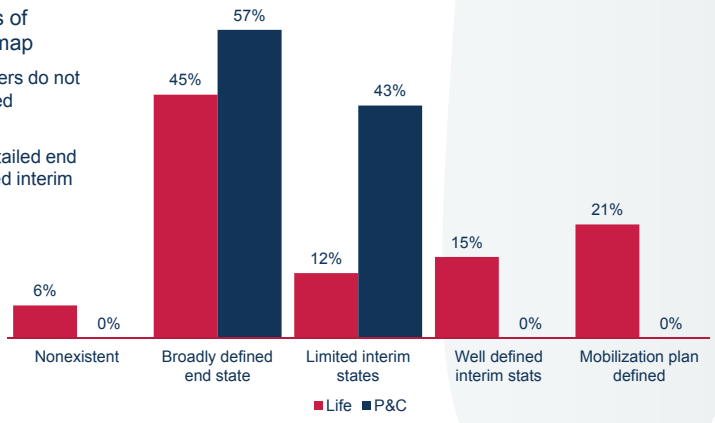
# Maturity of modernisation plans

Comprehensiveness of modernisation roadmap

- The majority of insurers do not have a well articulated modernisation plan
- Only 25% have a detailed end state with well-defined interim states

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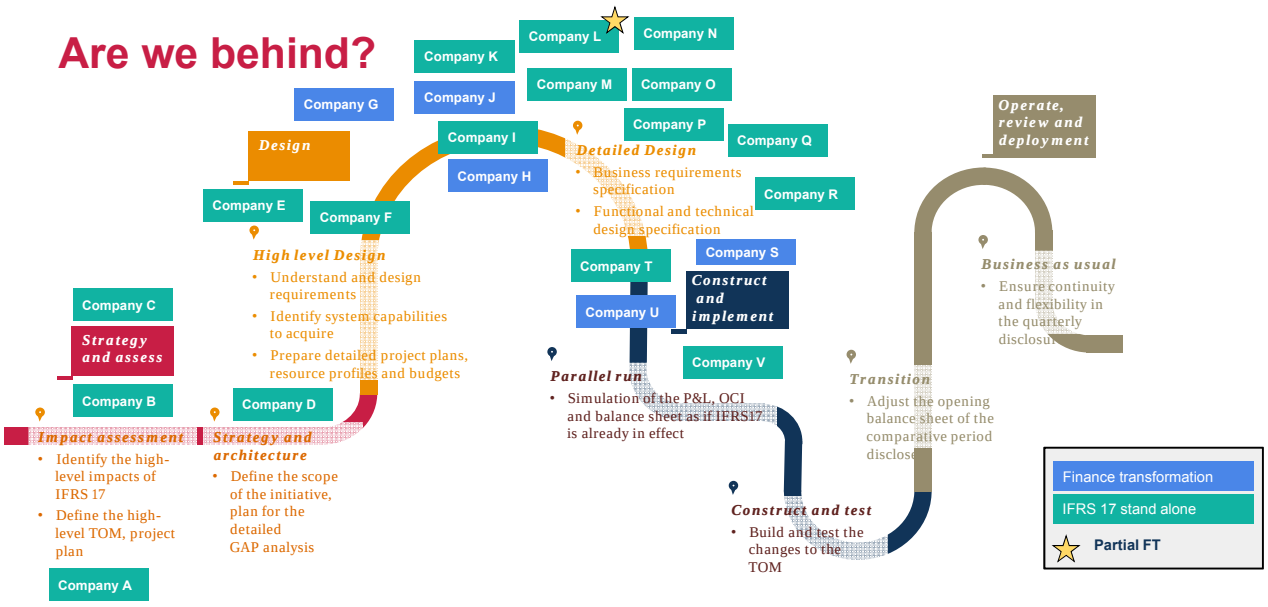
# Are we behind?






# Don’t lose momentum

- Use additional time wisely
- Reduce risks
- Smart onboarding (and retention)
- Handle uncertainties

## Getting the messaging right

How well do your stakeholders understand the new presentation of earnings and drivers?

What new KPIs will be needed?

Will your existing reporting infrastructure be able to cope?

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## Smarter compliance

Unit of account / grouping – making smart decisions

Coverage units – reflecting the economics of services

Mutualisation – bite the performance measurement bullet

Transition – reality check around retrospective approaches

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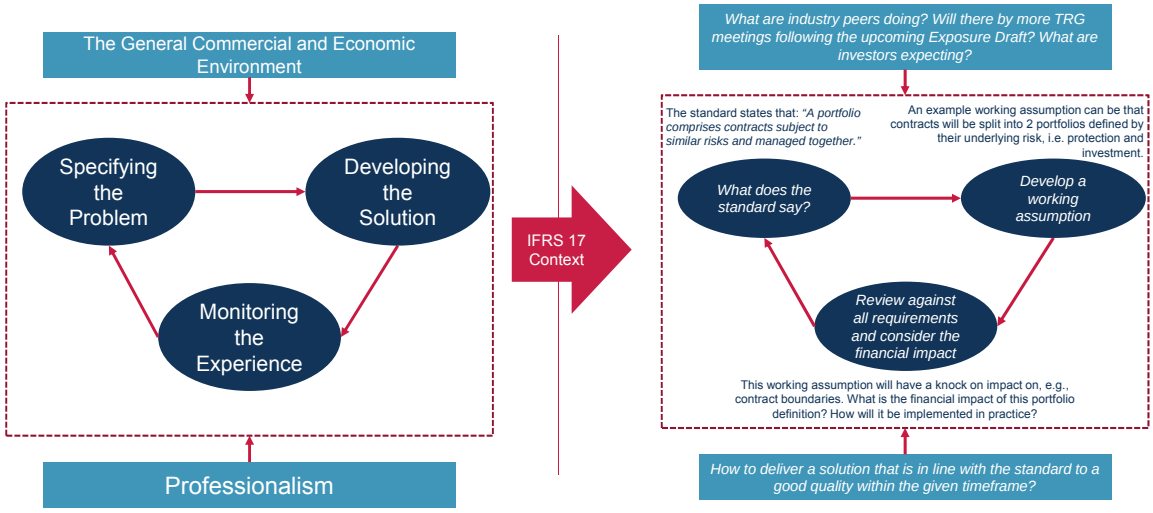
# Decision-making in IFRS 17 – not linear!

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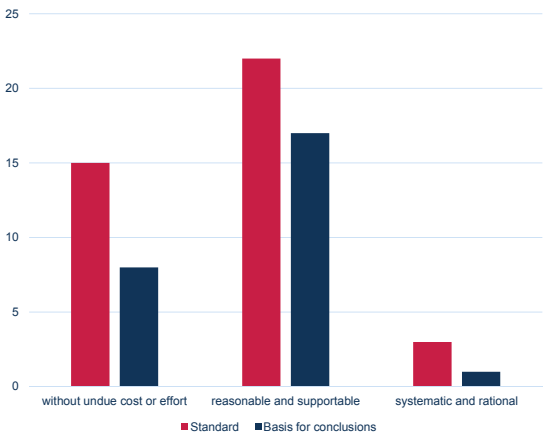
# Decision-making in IFRS 17 – make use of optionality




**Key topics:**

- Estimates of future cash flows
- Non-market variables
- Market variables
- Modified retrospective approach
- Fair value approach
- Onerous testing
- Separating components
- Expenses
- Mutualisation

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# IFRS 17 offers multiple degrees of optionality

## *Five ways to make it easier*

Unit of account

1. **Unit of account** is mainly an allocation issue – use the flexibility in the Standard to enable practical allocations

2. **Grouping** for CSM measurement is an option – not a requirement. Aiming for as much homogeneity as possible will simplify the analysis of CSM

Coverage units

3. Let **coverage units** do the hard work of CSM analysis

Design them to reflect the quantities of services delivered in each group

Mutualisation

4. **Mutualisation** requires assessment of returns based on fulfilment cash flows of contracts that generated the returns

An asset share approach is the easiest way to deliver this requirement – and there is considerable flexibility here too

Transition

5. By now, most realise that fully retrospective approach is hard in practice, unless you have the data. Fair value unlikely to maximise value.

So that leaves the **modified retrospective approach** – and much greater practicality and flexibility

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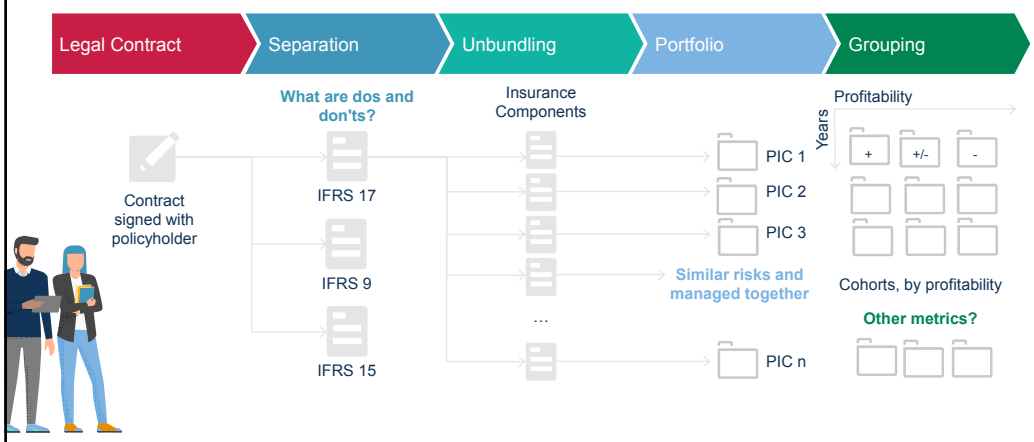
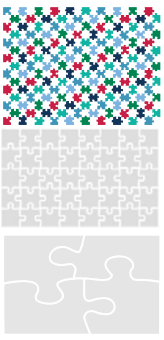
# Each level of aggregation decision is strategically and operationally important




**What should the book of business look like under IFRS 17?**



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# Understanding the operational consequences

Unbundling → Portfolio → Grouping

Lowest unit of account

Affects all aspects of classification and measurement, including contract boundaries

Starting point to form a group

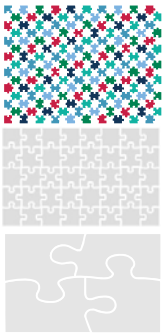
Policy for effect of discount rate changes

Allocation of expenses

Contract boundaries

**Every** subsequent measurement assessment and quantification of CSM, and transition assessments

**What should the book of business look like under IFRS 17?**



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# But remember that cash flow measurement can be at a higher level than group

Principle

Measurement of fulfilment cash flows can be at a higher level than groups

Implementation impact

Both design decisions (level of aggregation & measurement) are driving the complexity of the allocation for each fulfilment cash flow which is not directly linked to a (single) contract or calculated in a group

Which parts of the measurement model(s) are affected?

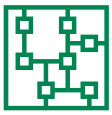
- Risk Adjustment
- Contractual service margin
- Expenses (allocated expenses only, e.g. overheads)
- Discretionary cash flows to be allocated by the entity
- Time value of options and guarantees
- Mutualisation of contractual cash flows of different groups

What are evolving or already existing allocation key requirements?

- Existing allocation mechanisms for statutory reporting
- Appropriateness (17.24)
- Systematic and rational (17.B65)
- Reasonable and supportable

***Five ways to make it easier***

Unit of account



1. **Unit of account** is mainly an allocation issue – use the flexibility in the Standard to enable practical allocations

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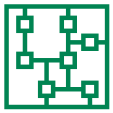
# Grouping has huge flexibility – and can ultimately be at contract level

Grouping at lower, more homogeneous levels (ultimately contract level) will simplify the analysis of CSM

But there is a trade-off between volatility of earnings and complexity in grouping

***Five ways to make it easier***

Unit of account



2. **Grouping** for CSM measurement is an option – not a requirement. Aiming for as much homogeneity as possible will simplify the analysis of CSM

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# Coverage units are powerful

## *They do the hard work of recognizing revenue*

CSM at start of period

New contracts added

Accretion of interest (GM) **or** change in fair value of variable fees (VFA)

Changes in future services (based on fulfilment cash flows)

**Release** of CSM due to **service provided** (through P&L)

CSM at end of period

***Five ways to make it easier***

Coverage units

3. Let **coverage units** do the hard work of CSM analysis

Design them to reflect the quantities of services delivered in each group

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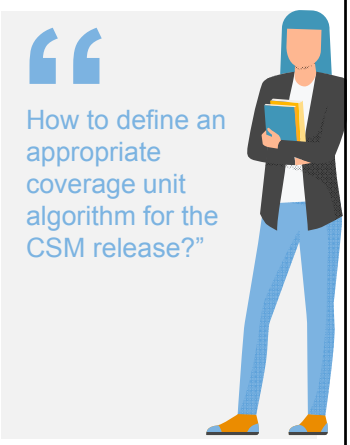
## But how to define coverage units?

- B119(a) defines coverage units for the group as:
- *"…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."*
- So coverage units assigned to each contract need to reflect the ***quantity*** of services in the contract
- This is much more difficult when there are *heterogeneous* services within a contract (and group of contracts), as is common in Asia

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## Why the level of grouping – and the approach to coverage units by group – really matters

**A group of two contracts**

**Contract 1: term life**

- Inception CSM 1000
- Coverage period 10 years
- Coverage units per period 10

**Contract 2: accidental death**

- Inception CSM 2000
- Coverage period 5 years
- Coverage units per period 5

How much CSM is released in the next period?

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## Why the level of grouping – and the approach to coverage units by group – really matters

**A group of two contracts**

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**Contract 2: accidental death**

- Inception CSM 2000
- Coverage period 5 years
- Coverage units per period 5

B119(b)

*"allocating the contractual service margin [for the group] at the end of the period (before recognising any amounts in profit or loss to reflect the services provided in the period) equally to each coverage unit provided in the current period and expected to be provided in the future."*

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## Why the level of grouping – and the approach to coverage units by group – really matters

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**Contract 2: accidental death**

- Inception CSM 2000
- Coverage period 5 years
- Coverage units per period 5

Total CSM for the group 3000

Total coverage units remaining: 125 (10x10 + 5x5)

Divide CSM between coverage units: 3000/125 = **24**

Coverage units to be released in this period: 10+5 = **15**

CSM to be released to profit = 15 x 24 = **360**

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# Why the level of grouping – and the approach to coverage units by group – really matters

**A group of two contracts**

**Contract 1: term life**

- Inception CSM 1000
- Coverage period 10 years
- Coverage units per period 10

**Contract 2: accidental death**

- Inception CSM 2000
- Coverage period 5 years
- Coverage units per period 5

**What if we instead treated the two contracts separately?**

**Contract 1**: 100 coverage units remaining
Divide CSM between coverage units 1000/100 = **10**
Coverage units to be released in this period: **10**
CSM to be released to profit = 10 x 10 = **100**

**Contract 2**: 25 coverage units remaining
Divide CSM between coverage units 2000/25 = 80
Coverage units to be released in this period: 5
CSM to be released to profit = 5 x 80 = **400**

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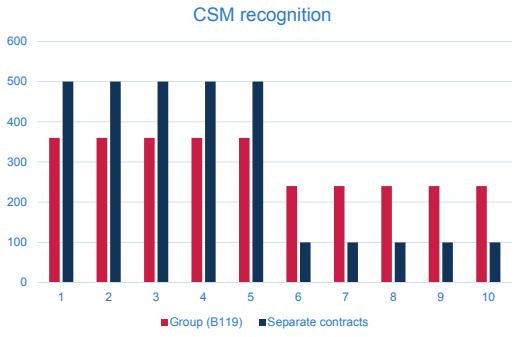
# Comparing the two approaches




Total CSM released over coverage period of group: 3000

- B119 requires the combination of the services, *weighted by total quantity of service per contract*
- Dividing into contracts reflects the individual patterns only – but ignores the weight of service

*Wouldn't it have been easier if B119 had allowed simply for **pattern** of services, rather than **quantity** of services?*

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# Mutualisation

Some insurance contracts affect the cash flows to policyholders of other contracts by requiring:

(a) the policyholder to share with policyholders of other contracts the returns on the same specified pool of underlying items; and

(b) either:

(i) the policyholder to bear a reduction in their share of the returns on the underlying items because of payments to policyholders of other contracts that share in that pool, including payments arising under guarantees made to policyholders of those other contracts; or

(ii) policyholders of other contracts to bear a reduction in their share of returns on the underlying items because of payments to the policyholder, including payments arising from guarantees made to the policyholder.

***So what does this mean when we measure cash flows?***

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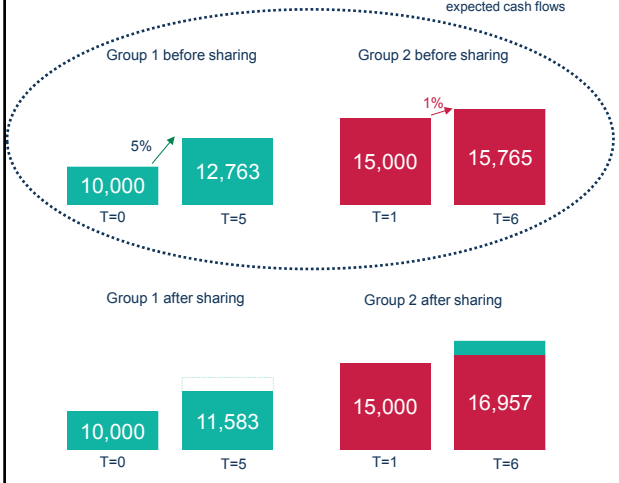
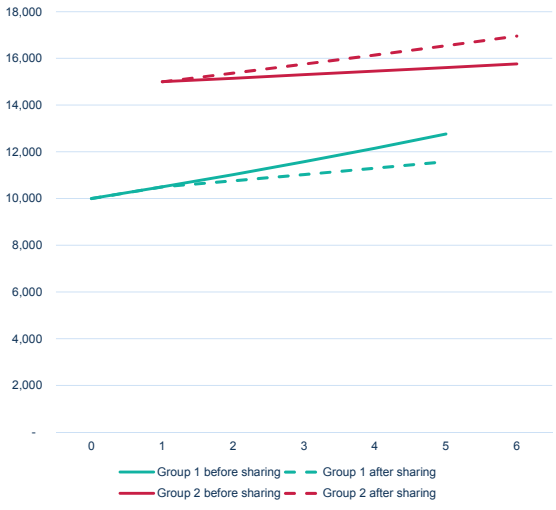
# What does the Standard say about mutualisation?

**B69-B70 / March 2019 Board Paper**

Fulfilment cash flows of each group reflect the extent to which the contracts in the group cause the entity to be affected by the expected cash flows

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# How do we allow for mutualisation?

## *Asset shares are the key*

- Asset shares for each group *"reflect the extent to which the contracts in the group cause the entity to be affected by the expected cash flows"*
- B70 also allows for allocation of cash flows using a 'systematic and rational' approach…
- What does this mean in practice?

***Five ways to make it easier***


4. **Mutualisation** requires assessment of returns based on fulfilment cash flows of contracts that generated the returns

An asset share approach is the easiest way to deliver this requirement – and there is considerable flexibility here too

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# Transition – what does the Standard say?

## Overview of approaches

**Default – Full retrospective**

- Calculation of CSM as if IFRS 17 had always applied (at initial recognition then rolled forward).
- Requires day one data and assumptions and full history to date of transition, for each group.
- Have to apply unless impracticable.

**If impracticable, free choice**

**Modified retrospective approach**

- As per fully retrospective, but with prescribed modifications permitted.
- Annual cohorts can be grouped if required.

**General model**

- Use as few permitted modifications as required.

**VFA**

- Prescribed modified approach.

**OR**

**Fair value**

- CSM = fair value of the liabilities (per IFRS 13) less IFRS 17 fulfilment cash flows at transition.
- No historic data required.
- Annual cohorts can be grouped if required.

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# What does 'impracticable' mean?

***'Applying a requirement is impracticable when the entity cannot apply it after making every reasonable effort to do so'* (IAS 8)**

**It is impracticable if**

- The **effects are not determinable.**
- It requires **assumptions about** what management's intent would have been in that period.
- It requires significant estimate of amounts and it is **impossible to distinguish objectively** information about those estimates that provides **evidence of circumstances that existed on the date(s)** as at which those amounts are to be recognised, measured or disclosed; and would have been available when the financial statements for that prior period were produced.

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# What does impracticable mean in practice?

***What should you consider to determine if it is impracticable to calculate the CSM fully retrospectively?***

**General questions/issues**

- Have you migrated policy administration systems in the past, and was all data transferred across?
- If data is missing, can it be recreated? How much effort will this require?
- How will you determine the risk adjustment? Do you have historical data to calculate it without hindsight?


**Initial CSM**

- Does all the data exist for the initial CSM calculation? *e.g. initial premiums received, initial acquisition costs.*
- Do you have historic assumption sets from when the contracts were written?
- Have discount rate assumptions been stored or can new ones be created without hindsight?

**Roll-forward of CSM**

- Do you have adequate data on the impact of assumption changes that would have been unlocked in the CSM? *e.g. can you identify (without hindsight) what related to future service?*
- Is this available at the right granularity? *e.g. annual cohorts*

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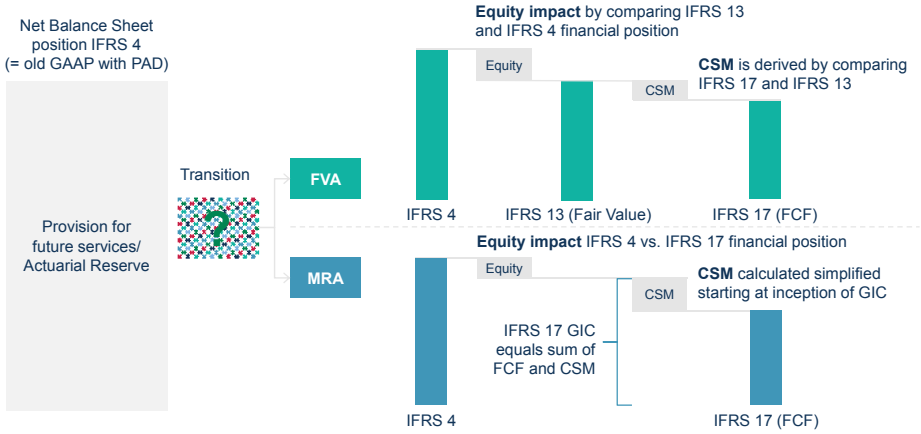
# Transition approaches solve the old topic of having a choice …

***What will be your transition story and how will you shape your future financial reporting steering principles and stakeholder messages?***






# The fair value approach

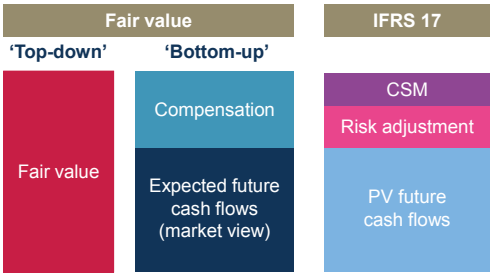
**IFRS 13**

*'The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date'*

A range of approaches to calculate fair value are currently seen in the market. The calculation can be thought of using a 'top-down' vs. 'bottom-up' approach.

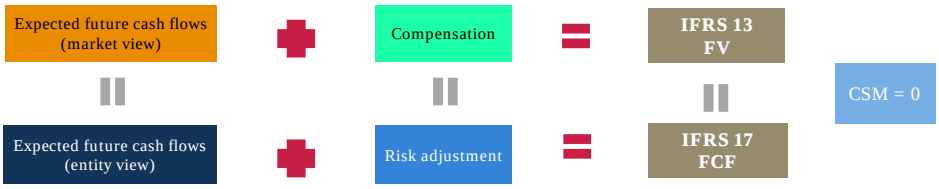
***Top-down** – Calibration of overall fair value to observable and relevant data.*

***Bottom-up** – Discounted cash flow technique, using a market participant view of best estimate cash flows plus the compensation required by the market participant to take these on.*



# Fair value – bottom-up approach

*A present value technique that takes into account '**the future cash outflows** that a market participant would expect to incur in fulfilling the obligation, **including the compensation** that a market participant would require for taking on the obligation' – IFRS 13 para 41*




| Contract cash flows | | | | | | |
|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
| | | | | | | |
| Expected premium | 100 | 100 | 100 | 100 | 100 | 500 |
| Expected claims and expenses | -60 | -60 | -60 | -60 | -60 | -300 |
| Risk adjustment/compensation | -10 | -10 | -10 | -10 | -10 | -50 |
| Net – IFRS 17 FCF/ IFRS 13 FV | 30 | 30 | 30 | 30 | 30 | 150 |

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# Potential differences other than risk adjustment


| PV of future cash flows | Potential differences between IFRS 17 FCF and IFRS 13 FVM | Impact on CSM at transition |
|---|---|---|
| Model assumptions | Market view might differ from entity's view in some aspects, including | |
| | - Demographic assumptions (eg future population mortality improvement) | ↑↓ |
| | - No brand protection outflows (average market participant) | ↓ |
| Expenses | A market participant may include different expenses in fair value | |
| | - Not directly related to fulfilment of contracts, eg allocation of overheads | ↑ |
| | - Related to fulfilment of contracts, but different from entity's cost base | ↑↓ |
| Discount rate | | |
| - Liquidity premium | Under IFRS 17 top down approach, no required adjustment to reference portfolios for differences in liquidity characteristics. IFRS 13 requires discount rate to reflect nature of asset/liability | ↑↓ |
| - Non-Performance risk | Non-performance risk should be considered in FVM, but not in IFRS 17 FCF | ↓ |

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# **Modified retrospective approach:** Approximating the fully retrospective approach without undue cost or effort

Each of these modifications can be considered and applied separately:

- Make use of policy grouping information at transition date to derive **grouping decision at inception**
- Allow **grouping of data by more than annual cohort** (C10)
- **Expected future cash flow at initial recognition** can be approximated by cash flow at transition date adjusted for the cash flow that are known to have occurred between date of initial recognition and transition date. (C12)
- Use of observable yields and discount rate at transition to imply **discount rate** at inception date (C13)
- **Risk adjustment** at inception date is estimated using RA at transition date adjusted by release of expected RA of a similar product (C14)
- For a **loss component** at initial recognition, allow the loss component using a systematic allocation consistent with other modifications adopted (C16)

***Five ways to make it easier***

Transition 

5. By now, most realise that fully retrospective approach is hard in practice, unless you have the data. Fair value unlikely to maximise value.

So that leaves the **modified retrospective approach** – and much greater practicality and flexibility.

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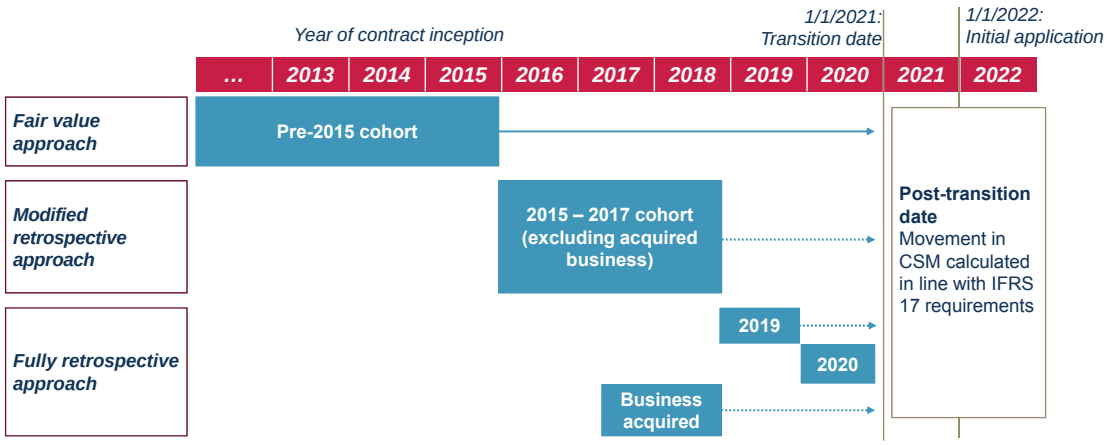
# Transition – using the range of options

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# Learning from China

Learning from implementing China Accounting Standard

Some technical issues identified towards IFRS17

Implementation challenges in China and some further simplification ideas



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## Learning from implementing China Accounting Standard

## Learning points in implementation of China Accounting Standard since 2009 (1/3)

- Changes of estimates of fulfilment cash flows are not absorbed by CSM
  - Update of assumptions lead to volatile profits
  - There may be a room of manipulating profits by changing actuarial assumptions.
  - IFRS17 would eliminate the room of adjusting profits by altering assumptions.
- Expense scope is not clearly defined
  - No clear definition of expense leads to a wide range of practice, from incremental cost to unit cost allowing for overhead.
  - It will be useful to have industry consensus to have a common practical interpretation of expense definition.

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## Learning points in implementation of China Accounting Standard since 2009 (2/3)

- Volatility of profits make some insurers to consider non GAAP measure
  - Update of market and non market variables will lead to volatile profits.
  - Some insurers published non GAAP measure, e.g., operating profits to remove market volatility.
  - IFRS17 will have more stable profits by CSM un-locking and OCI option.
- Unbundling of investment component leads to change of business mix
  - For universal life and unit linked business, the account value is unbundled under CAS. This accounting treatment will reduce the premium income reported and leads to low sales volume of universal life and unit linked business.
  - Whether new metrics under IFRS17 will lead to change in business mix remains unclear and requires further analysis.

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## Learning points in implementation of China Accounting Standard since 2009 (3/3)

- Practical solutions were taken to reduce implementation cost and manage the results.
  - 3 year moving average rate is introduced to reduce the impact of change of market rate as most invested assets are valued at amortised cost.
  - Use of PAD for non financial risk variables as risk margin reduces implementing cost and difficulties
  - Those practical solutions will be re-considered under IFRS17.
- Tax need to be considered strategically
  - Payment arrangement for increase in retained profits. It would be beneficial to whole industry by negotiating a better payment plan.
  - Deduction cap of commissions is not clearly defined, which leads to many case of tax penalties.
  - The industry shall not repeat the mistake under IFRS17.



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## Some technical issues identified under IFRS17

# Products with large investment elements reveal accounting technical issues

### Loss component due to interest deficit

- Valuation rate is lower than interest rates implied in pricing, which results in loss components.
- Allocation of LC to expected insurance claim (which is very small) will result in negative revenue at group level. Is negative revenue allowed?
- Shall LC be allocated to investment component only? Will revenue equation still hold?

### Deposit of dividends/survival benefits

- 2019 April TRG paper, submission 92 indicates that dividends declared will be included in LIC not LRC.
- When calculating CSM at inception, future spread earned over risk free rate for DoD will be included in CSM. If declared dividends are included in LIC, then variance in timing could not be absorbed by CSM, which could lead some mis-alignments.

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# Implementation challenges and simplifications

## Stochastic technique is not widely used in risk modelling

- Time value of guarantees
  - Risk neutral valuation is likely to be used.
  - Implied volatility may not exist as no derivative is traded.
  - Risk neutral scenarios generation is critical
- Possible simplifications
  - May use historic volatility
  - Consider some simple model, e.g. Geometric Brownian Motion

- Risk adjustment
  - Value at Risk is likely to be used
  - Liability may not has the similar distribution as the risk driver
  - VaR does no pass sub-addivity test f(x+y)<=f(x)+f(y), which may distort allocation of diversification
- Possible simplifications
  - Normal distribution of risk driver
  - Polynomial approximation
  - Negative RA at group?

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## Bonus policy and credit rate policy are not well defined.

- Management action and smoothing is not clearly defined
  - Could not construct a payout function when calculating TVOG
- Possible practice
  - No smoothing is considered, which may lead to high cost of guarantee.
  - Construct simple payout function but need management to approve

- Specifying discretion
  - Entity could not specify commitment and discretion for non-direct participating contracts due to lack of clearly defined bonus policy.
- Possible practice
  - Applying B100, “it shall regard its commitment to be the return implicit in the estimate of the fulfilment cash flows at inception”, i.e., all updated will be related to financial risk.

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## Technical interpretations/simplifications may reduce implementation cost significantly

- Contract combination
  - Cash flow inter-related riders have to be combined.
  - If a rider can be attached to different main products, it may not have to be combined.
- Prepaid premium
  - Does a payment made before contract formation constitute premium payment? Could it be deposit of future contract?
  - Shall policy provision specify the date of first premium due?
- Contract boundary
  - Maturity payments/survival payments are paid into a universal account
  - Is the universal policy within the contract boundary of the existing policy
- Policy Loan
  - Non distinct investment component, which is part of cash flows of insurance contact, which need new valuation data and assumptions, e.g., loan balance, take-up rate, redemption pattern,
  - Model as floating loan




Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.