



Government
Actuary's
Department

An Introduction to IFRS 17

Tailored to UK public accounts perspective

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Promotional material

Government Actuary's Department services

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2 An introduction to IFRS 17



Important points

We are not accountants – this presentation reflects our understanding of actuarial aspects but it is important to consider expert accounting advice.

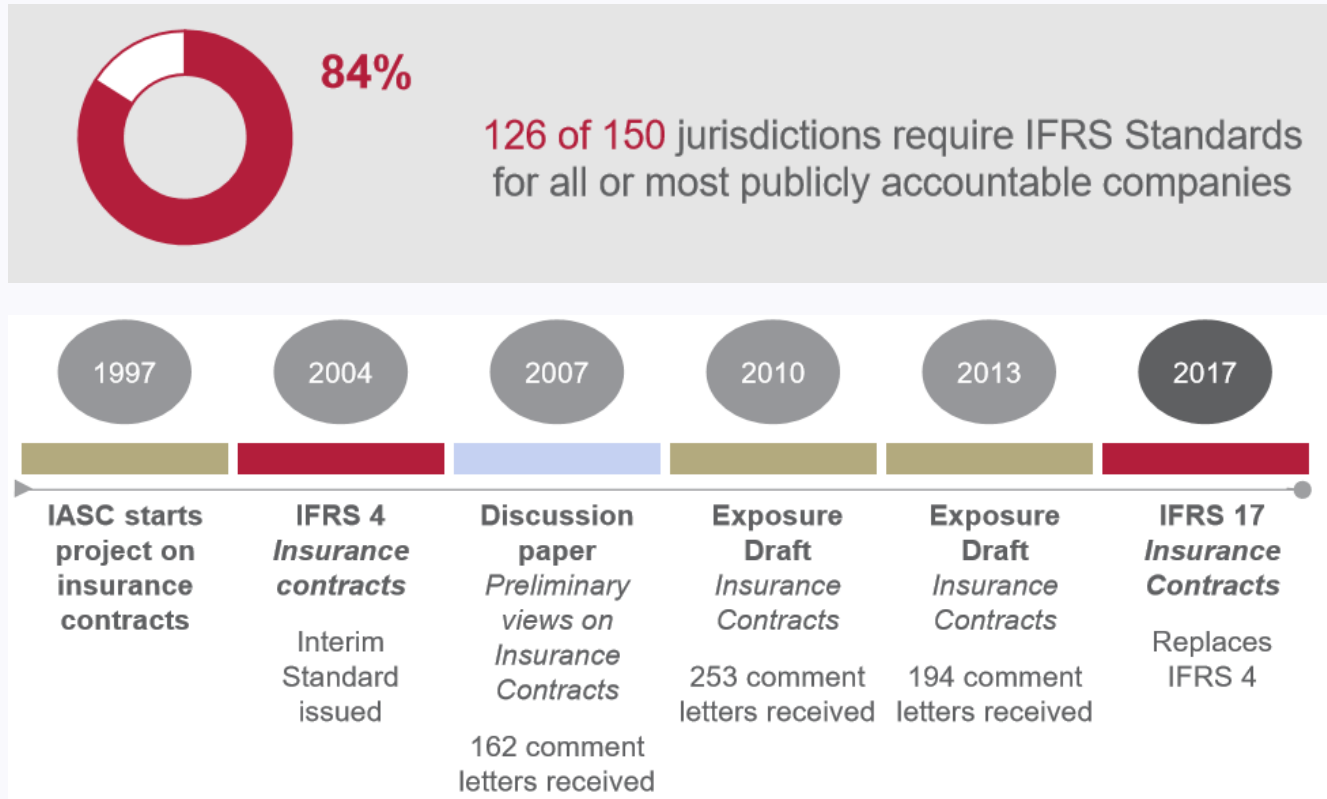
IFRS 17 is written focused on the perspective of insurance companies accounts – it is possible that materiality matters could impact what needs to be shown, thus there may be some differences in the public sector.

There are increased disclosures required about methods used and reconciliations – again materiality will need to be considered.



What is IFRS 17?

The international financial reporting standard (IFRS) for INSURANCE CONTRACTS

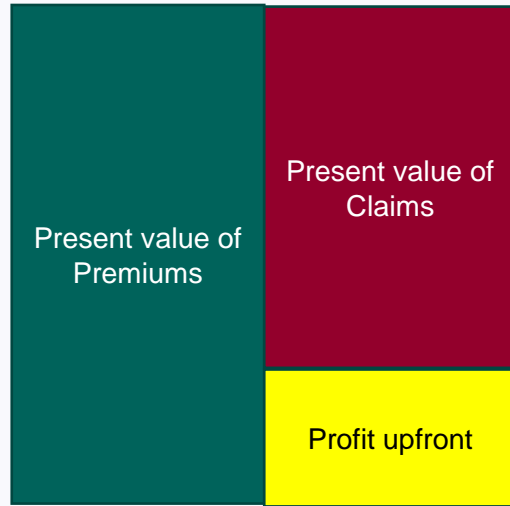


IFRS 17 is applicable for accounting periods starting on or after 1st January 2023

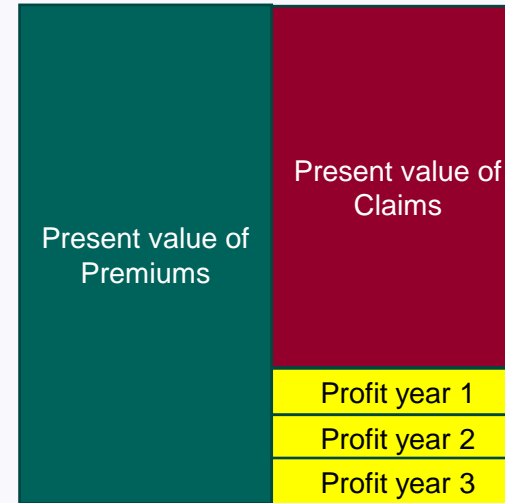
(1st January 2025 is proposed date for initial application in central government)



IFRS 4 v IFRS 17 – profit summary



IFRS 4 methods
tend to recognise
profit immediately



IFRS 17 recognises
profit over the term
of the contracts

BUT LOSSES RECOGNISED TO P&L IMMEDIATELY



The high level concepts

Designed to make insurance companies accounts consistent and comparable

Profits recognised as they are earned (not up front)

Losses recognised immediately they are expected

Finance and investment components split from insurance returns

‘This information gives a basis for users of financial statements to assess the effect that insurance contracts have on the entity’s financial position, financial performance and cash flows’



Scope

Insurance contract definition:

A contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

- There is no need for a premium to be payable
- Contract can be verbal as well as written
- Includes reinsurance purchased (but this is accounted separately)
- Some waivers and choices between IFRSs in the detail



Scope – within government

- HM Treasury guidance now published [Link to guidance](#) which includes decision tree
- UK Export Finance and Flood Re write insurance and are in scope
- Only 3 other government entities have approached GAD to date
- Lots assume they are not in scope – will auditors agree?
- Materiality – only one scenario must be significant for it to be material
- Not in scope if not legally enforceable



Aggregation – portfolios and groups

- 1) Portfolio of insurance contracts (reporting at portfolio level)
 - managed together
 - similar features
 - e.g. ‘non-profit annuity’, ‘term assurance’, ‘motor’
 - each portfolio contains ‘groups’

- 2) A group’s policies must be issued no more than one year apart

- 3) On initial recognition minimum 3 groups for each portfolio
 - onerous (loss making)
 - no prospect of ever being onerous
 - the rest

Note: Some calculations may be done at a higher aggregation and then allocated using an appropriate method to these groups



Aggregation – portfolios and groups

	Year 1	Year 2	Year 3
Portfolio 1 (e.g. Motor)	No significant probability of becoming onerous	No significant probability of becoming onerous	No significant probability of becoming onerous
	Other	Other	Other
	Onerous	Onerous	Onerous

	Year 1	Year 2	Year 3
Portfolio 3 (e.g. Whole Life)	No significant probability of becoming onerous	No significant probability of becoming onerous	No significant probability of becoming onerous
	Other	Other	Other
	Onerous	Onerous	Onerous

	Year 1	Year 2	Year 3
Portfolio 2 (e.g. Property)	No significant probability of becoming onerous	No significant probability of becoming onerous	No significant probability of becoming onerous
	Other	Other	Other
	Onerous	Onerous	Onerous

	Year 1	Year 2	Year 3
Portfolio 4 (e.g. Annuity)	No significant probability of becoming onerous	No significant probability of becoming onerous	No significant probability of becoming onerous
	Other	Other	Other
	Onerous	Onerous	Onerous



Initial Recognition

An entity shall recognise a group of insurance contracts it issues from the earliest of the following:

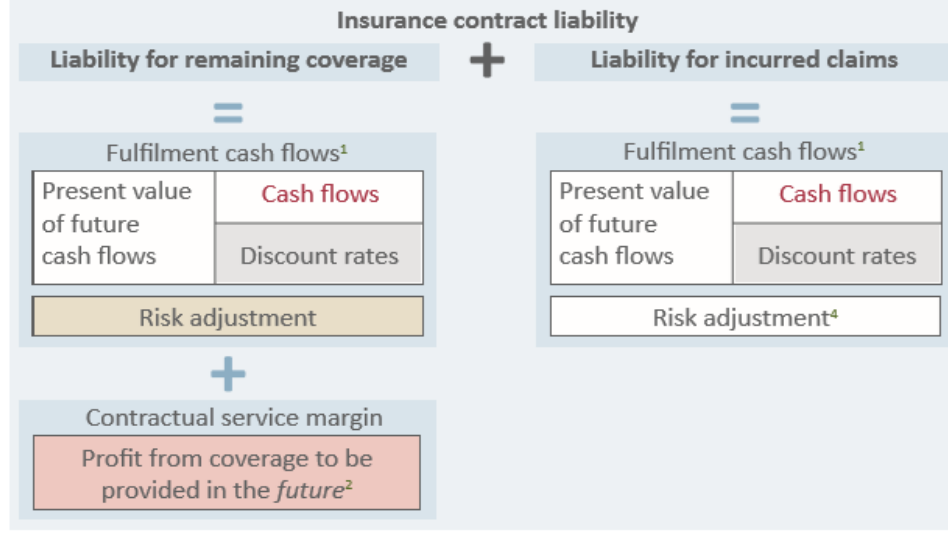
- (a) the beginning of the coverage period of the group of contracts;
- (b) the date when the first payment from a policyholder in the group becomes due;
- (c) for a group of onerous contracts, when the group becomes onerous.

At initial recognition it is necessary to decide upon:

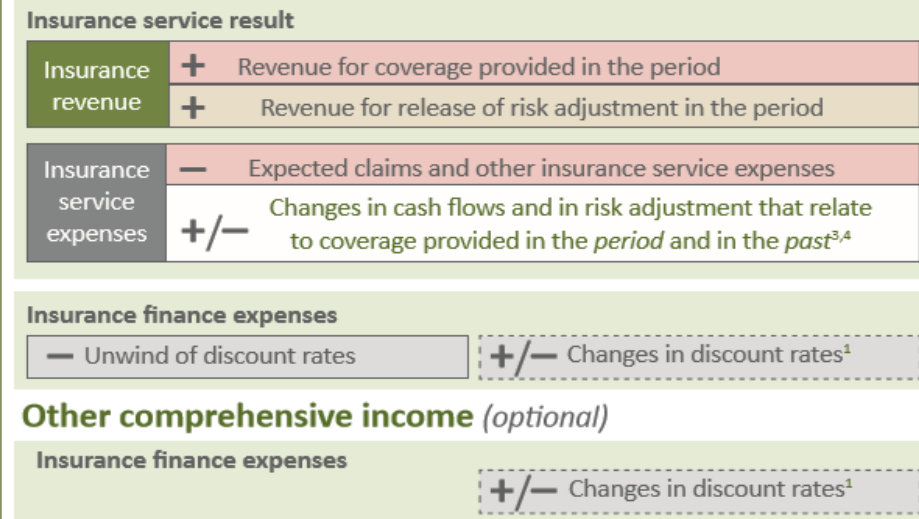
- The discount rate applicable at that date (weighted average for group) – this rate will be used **THROUGHOUT** the term.
- The coverage period for the group – < 1 year a lot easier ?



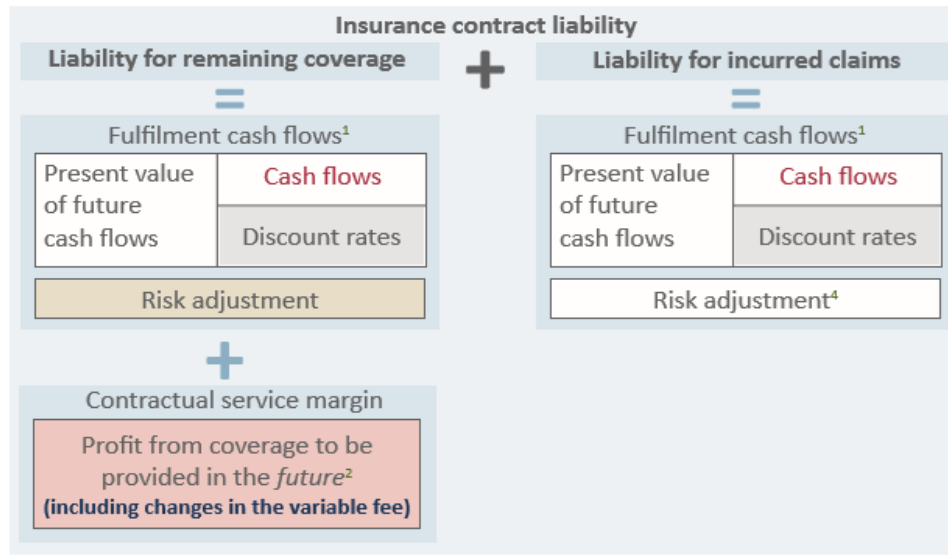
Balance sheet



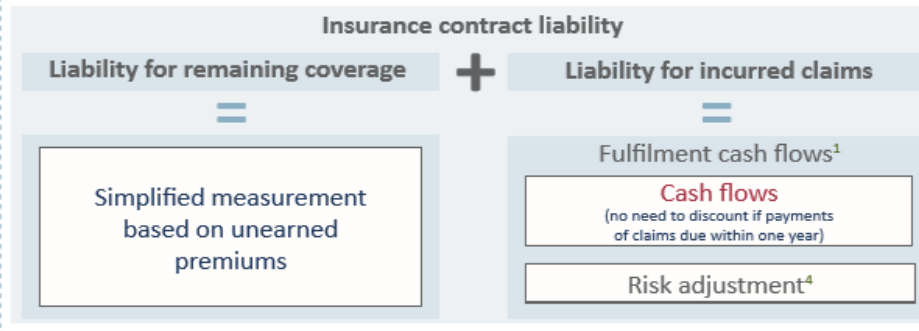
Profit or loss



Modifications for contracts with a 'variable fee'



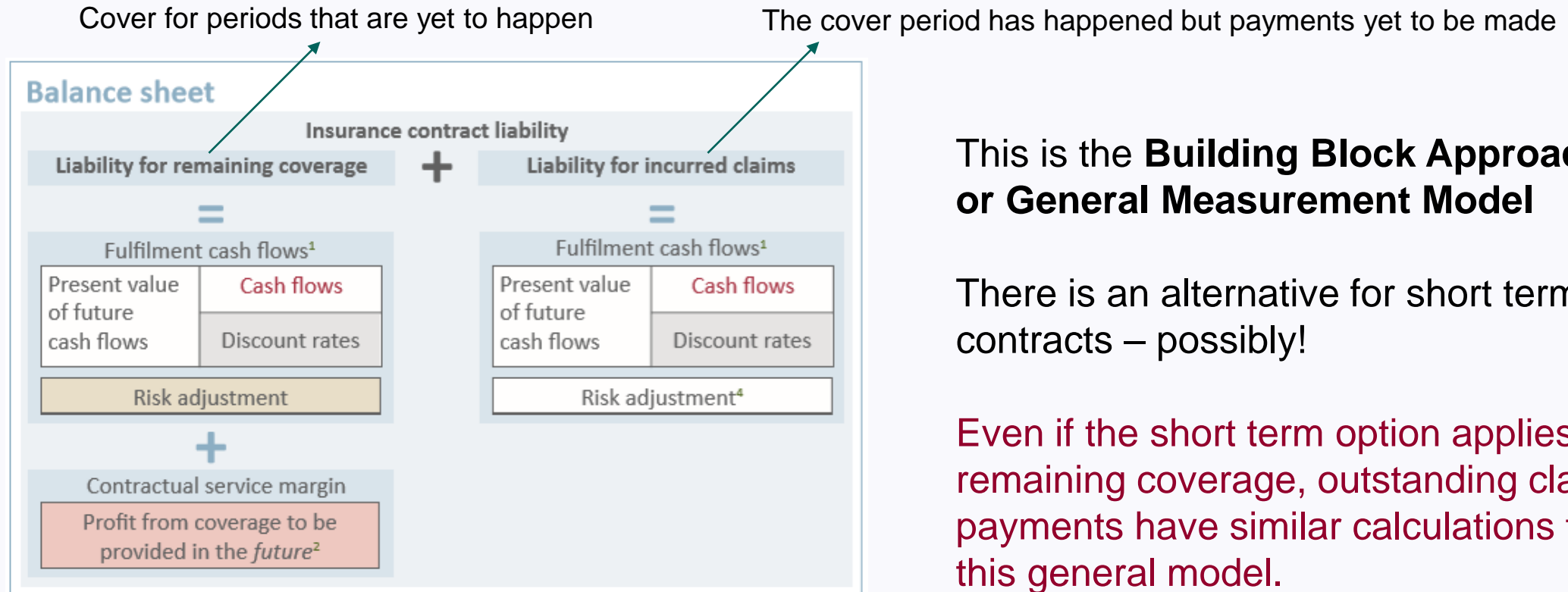
Simplifications for short-term contracts (optional)



Notes

- 1 The fulfilment cash flows are at current value: cash flows, discount rates and risk adjustment are updated at each reporting date
- 2 Changes in cash flows and in risk adjustment that relate to coverage to be provided in the *future* adjust the contractual service margin
- 3 Changes in cash flows and in risk adjustment that relate to coverage provided in the *period* and in the *past* are recognised in profit or loss
- 4 The release of risk adjustment within the liability for incurred claims reduces incurred claims in profit or loss

Measurement at initial recognition (and subsequently)



This is the **Building Block Approach** or **General Measurement Model**

There is an alternative for short term contracts – possibly!

Even if the short term option applies for remaining coverage, outstanding claims payments have similar calculations to this general model.

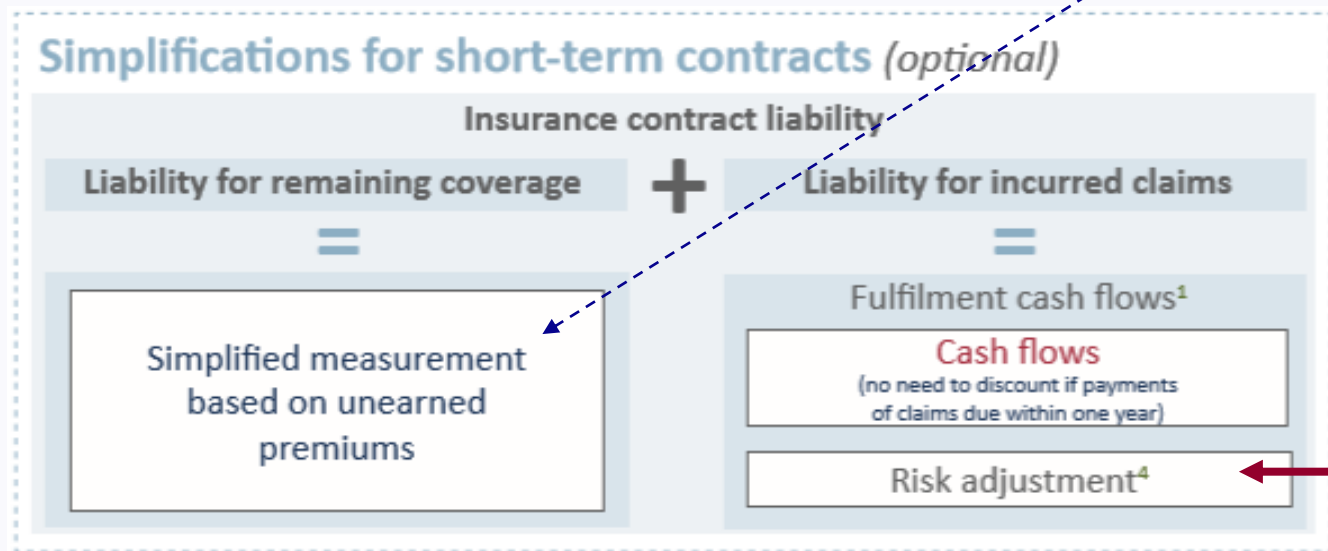


Short-term contracts – Premium Allocation Approach (PAA)

The PAA can be used if, and only if, at the inception of the group:

Using PAA does not produce materially different answer to GMM
OR
 the coverage period of each contract in the group is one year or less.

Broadly:
 Premium = 1200 for 12 months
 Liability for remaining coverage after 3 months = $1200 * 9/12 = 900$



If term > 1 year discounting is likely to be required

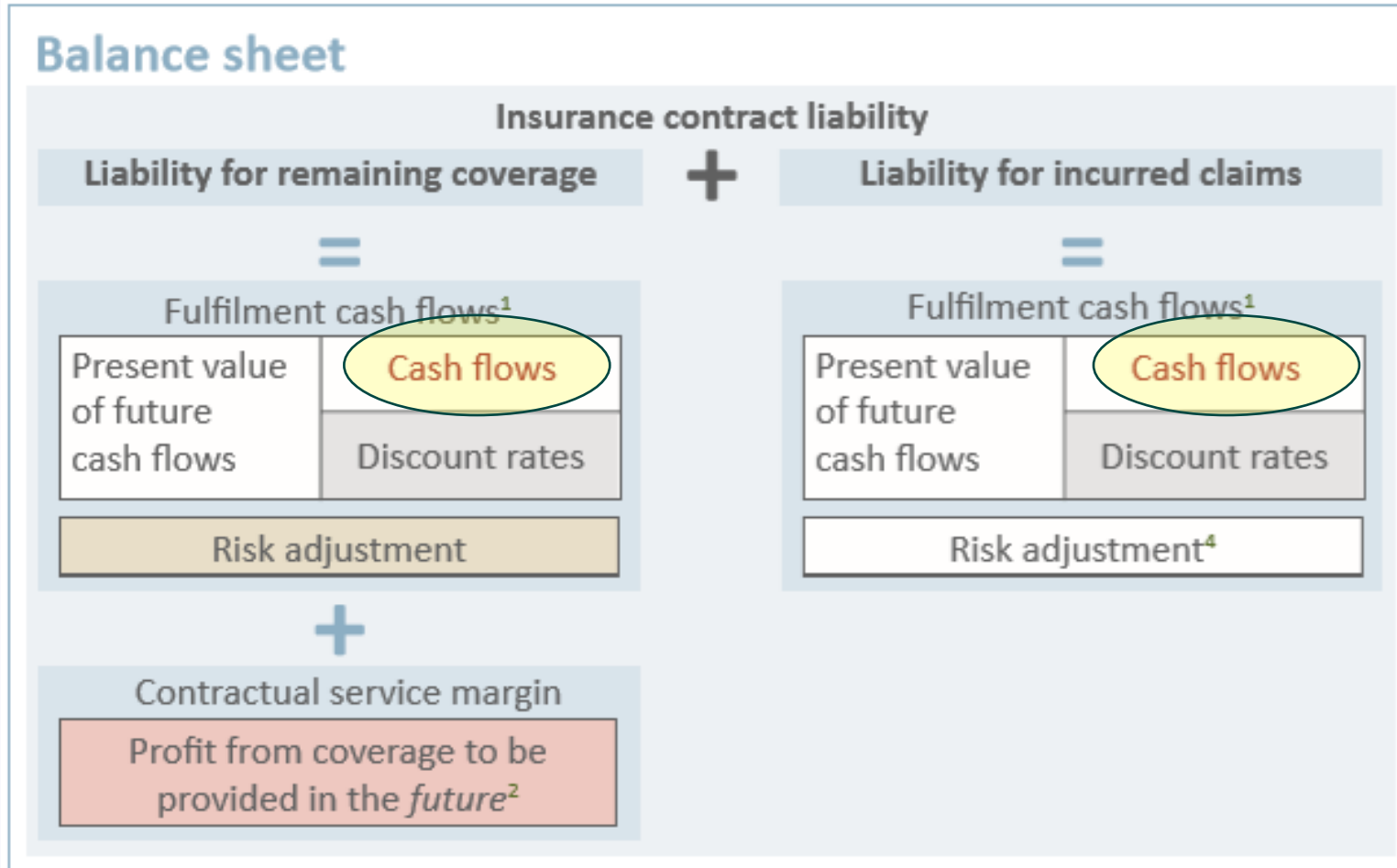
Discounting of claims is expected unless payment is expected to be within a year of occurrence

If it becomes apparent a group of contracts is onerous the difference between the PAA and fulfilment cashflows must be recorded as a loss in P&L - so effectively need to do GMM

Note a risk adjustment under LIC



Cashflows?



Future cashflows (35 paragraphs of guidance)

- applies to outstanding claims even if using PAA
- All **cashflows** within boundary of each contract in group (broadly until entity can change price and/or policyholder can walk away)
- all **reasonable and supportable** information available without undue cost or effort about the amount, timing and uncertainty of those future cash flows. To do this, an entity shall estimate the expected value (i.e. the **probability-weighted mean**) of the full range of possible outcomes.
- estimates of any relevant market variables are consistent with **observable market prices** for those variables
- **current**—the estimates shall reflect conditions existing at the measurement date, including assumptions at that date about the future
- **explicit** - the entity shall estimate the adjustment for non-financial risk separately and the adjustment for the time value of money and financial risk, unless the most appropriate measurement technique combines these estimates



Future cashflows – what is included

- premiums
- payments to a policyholder, including reported claims, IBNR claims, future claims
- payments to a policyholder that vary depending on returns on underlying items or derivatives
- an allocation of insurance acquisition cash flows attributable to the portfolio
- claim handling costs
- costs the entity will incur in providing contractual benefits paid in kind.
- policy administration and maintenance costs (but not as part of LRC, could be in LIC)
- transaction-based taxes or taxed on behalf of policyholder
- potential cash inflows from recoveries (such as salvage and subrogation)
- costs the entity will incur performing investment activity, to the extent the entity performs that activity to enhance benefits
- **an allocation of fixed and variable overheads – potentially ? (cost of accounting, HR, IT, rent etc - claims share of these costs?)**
- any other costs specifically chargeable to the policyholder under the terms of the contract.



Future cashflows – what is not included

- investment returns
- cash flows (payments or receipts) that arise under reinsurance contracts held.
- cash flows that may arise from future insurance contracts
- cash flows relating to costs that cannot be directly attributed to the portfolio of insurance contracts that contain the contract, such as some product development and training costs. Such costs are recognised in profit or loss when incurred.
- cash flows that arise from abnormal amounts of wasted labour or other resources that are used to fulfil the contract. Such costs are recognised in profit or loss when incurred.
- income tax payments and receipts the insurer does not pay or receive in a fiduciary capacity or that are not specifically chargeable to the policyholder under the terms of the contract.
- cash flows between different components of the reporting entity, such as policyholder funds and shareholder funds, if those cash flows do not change the amount that will be paid to the policyholders.
- cash flows arising from components separated from the insurance contract and accounted for using other applicable Standards (see paragraphs 10–13).



Future cashflows – a very simple example of remaining coverage

- HMG takes on a liability to pay the following possible amounts in 1 year

Amount	Probability
£0m	50%
£10m	30%
£20m	20%

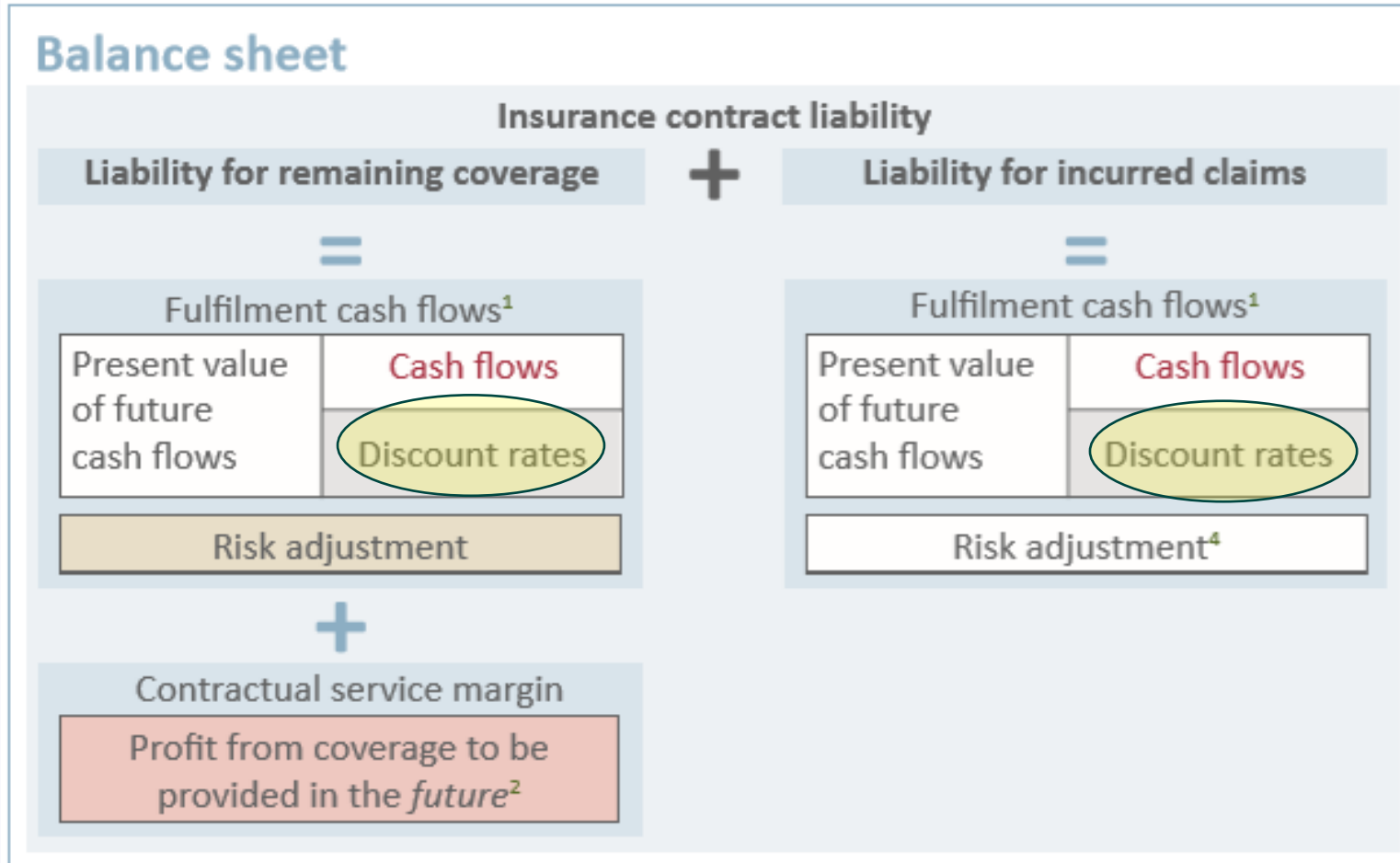
- Expenses will be incurred of £0.2m to administer
- If a claim occurs there will be a cost of £0.3m to make payments and process necessary admin

The best estimate of this remaining coverage liability is

$$(\text{£}0\text{m} * 50\% + \text{£}10\text{m} * 30\% + \text{£}20\text{m} * 20\%) + \text{£}0.2\text{m} + (\text{£}0.3\text{m} * (30\%+20\%)) = \text{£}7.35\text{m}$$



Discounting?



Discount rates (14 paragraphs of guidance)

Expected that outstanding claims run-off will have to be discounted if > 1 year from claim

An entity shall adjust the estimates of future cash flows to reflect the time value of money and the financial risks related to those cash flows, to the extent that the financial risks are not included in the estimates of cash flows. Discount rates shall:

reflect the time value of money, the characteristics of the cash flows and the **liquidity characteristics of the insurance contracts**;

be consistent with observable current market prices (if any) for financial instruments **with cash flows whose characteristics are consistent with those of the insurance contracts**, in terms of, for example, timing, currency and liquidity

Entities following HM Treasury's FReM – default to use the PES rate other than those primarily involved in insurance business

KEY POINT – CURRENT DISCOUNT RATE AND INITIAL RECOGNITION DISCOUNT RATE



Future cashflows and discounting example

- HMG takes on a liability to pay in 1 year and also in 2 years

Amount	Probability
£0m	50%
£10m	30%
£20m	20%

Amount	Probability
£0m	70%
£5m	20%
£8m	10%

- Expenses will be incurred of £0.2m to administer – each year
- If a claim occurs there will be a cost of £0.3m to make payments and process necessary admin
- Discount rate 1% for 1 year period, 1.5% for 2 year period

The best estimate of this remaining coverage liability is

$$\begin{aligned} & ((£0m * 50\% + £10m * 30\% + £20m * 20\%) + £0.2m + (£0.3m * 50\%)) / 1.01 + \\ & ((£0m * 70\% + £5m * 20\% + £8m * 10\%) + £0.2m + (£0.3m * 30\%)) / 1.015^2 = £9.31m \end{aligned}$$



Complexities – within government

- Lack of data (that is why public sector takes the risk)
- Extreme remote probabilities (but material if occurs) in some cases
- How to set discount rates – consistent with character of policies (PES rate)
- Lack of modelling as not part of Solvency II
- Onerous contracts...

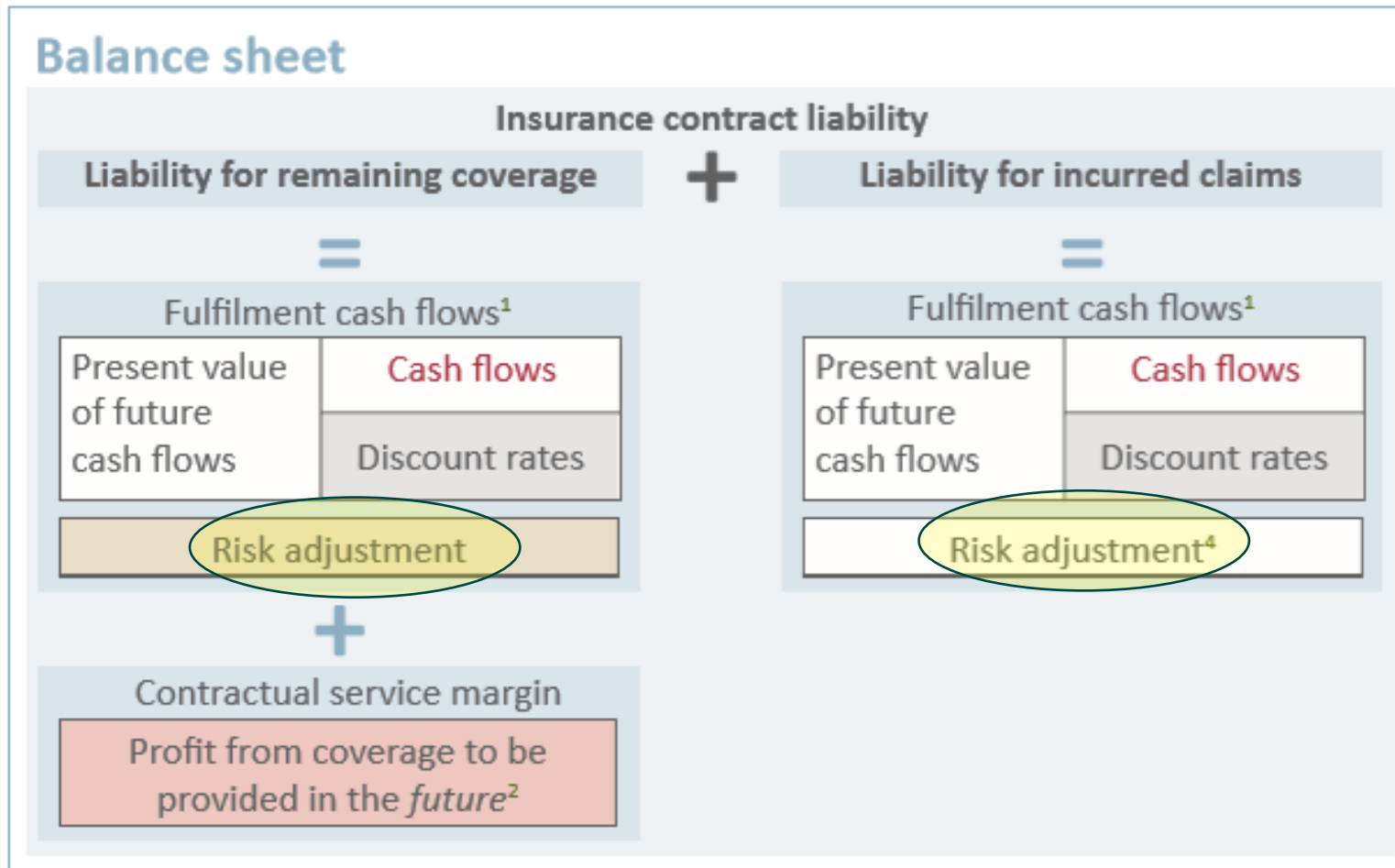


Complexities – Onerous contract example

- HMG takes on uninsurable risk – 10 years – no premium payable
- Probability of a claim in any 1 year is 1 in 10,000
- If a claim occurs the cost is £10,000,000
- (Ignore discounting for simplicity)
- Expected cost per year = $£10,000,000 * 1/10,000 = £1,000$
- At initial recognition Liability for Remaining Coverage = $£10,000 (£1,000 * 10)$
- This is onerous as no premium so an immediate loss to P&L
- Each year (assuming no claims) a profit emerges of £1,000



Risk Adjustment for non financial risk?



Risk adjustment for non-financial risk

An entity shall adjust the estimate of the present value of the future cash flows to reflect the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from **non-financial** risk – **applies to outstanding claims even if use PAA**

- Concept is similar to capital (how apply to government?)
- No prescribed method
 - VAR, Tail Var, Cost of Capital approach (Risk Margin), Explicit loading
- **Must disclose the VAR figure for your risk adjustment (public sector exemption)**
- Should reflect the extent of the risk (duration, width of distribution, diversification)



Risk adjustment for non-financial risk

An example of the concept:

I have a hat with 101 balls numbered 0 to 100 and I pay you the number on the ball

The expected payment (weighted mean) is 50

I do not like uncertainty and if I had compensation of 10 then I would be indifferent between paying 50 now or paying the outcome of the dice

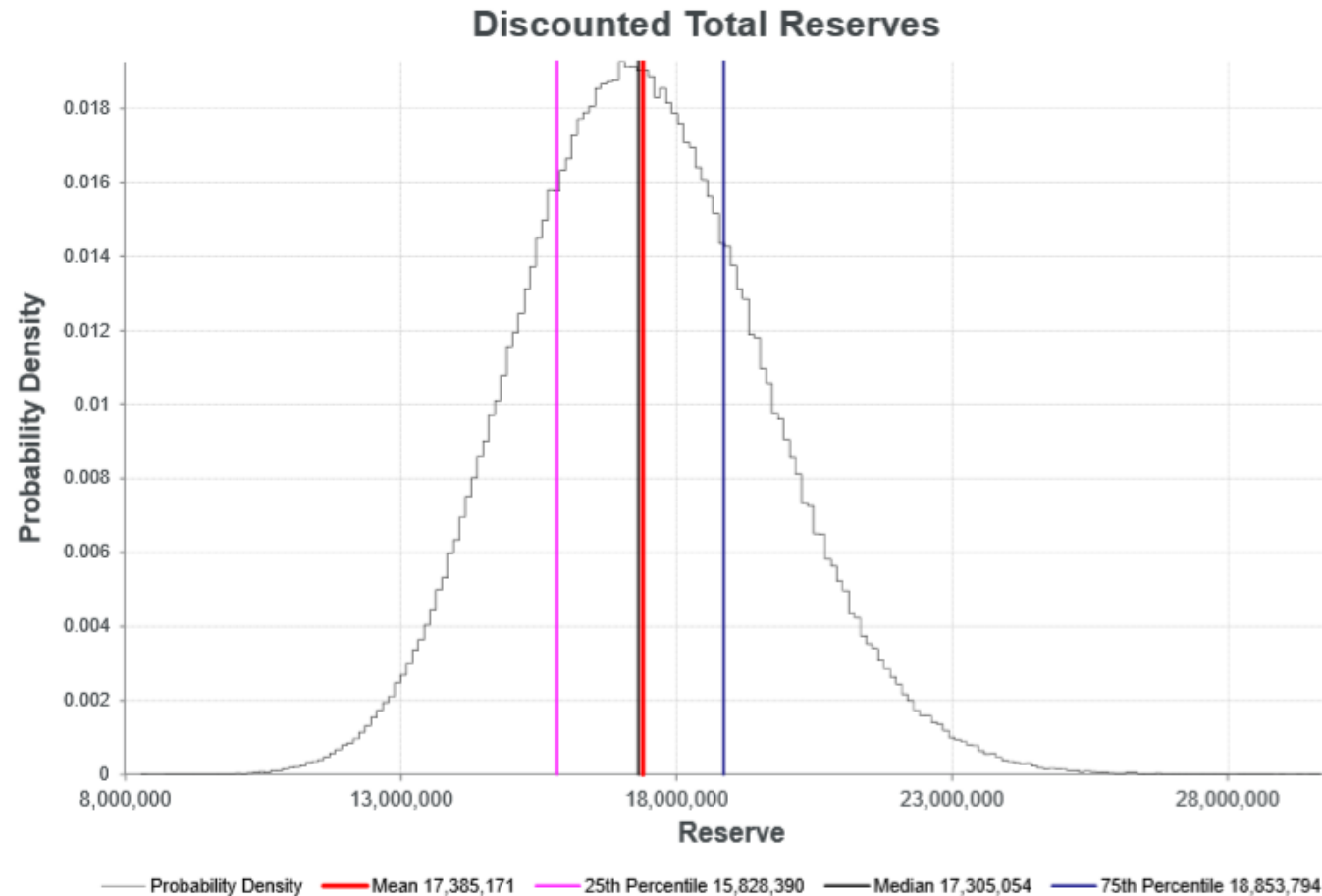
The risk adjustment for non-financial risk is thus 10 – i.e. Best Estimate + RA = 60

The VAR is 60.4 percentile – i.e. there is a 60.4% chance outcome lower than or equal to 60

(60.4% = 61/101 – the 61 balls from 0 to 60)



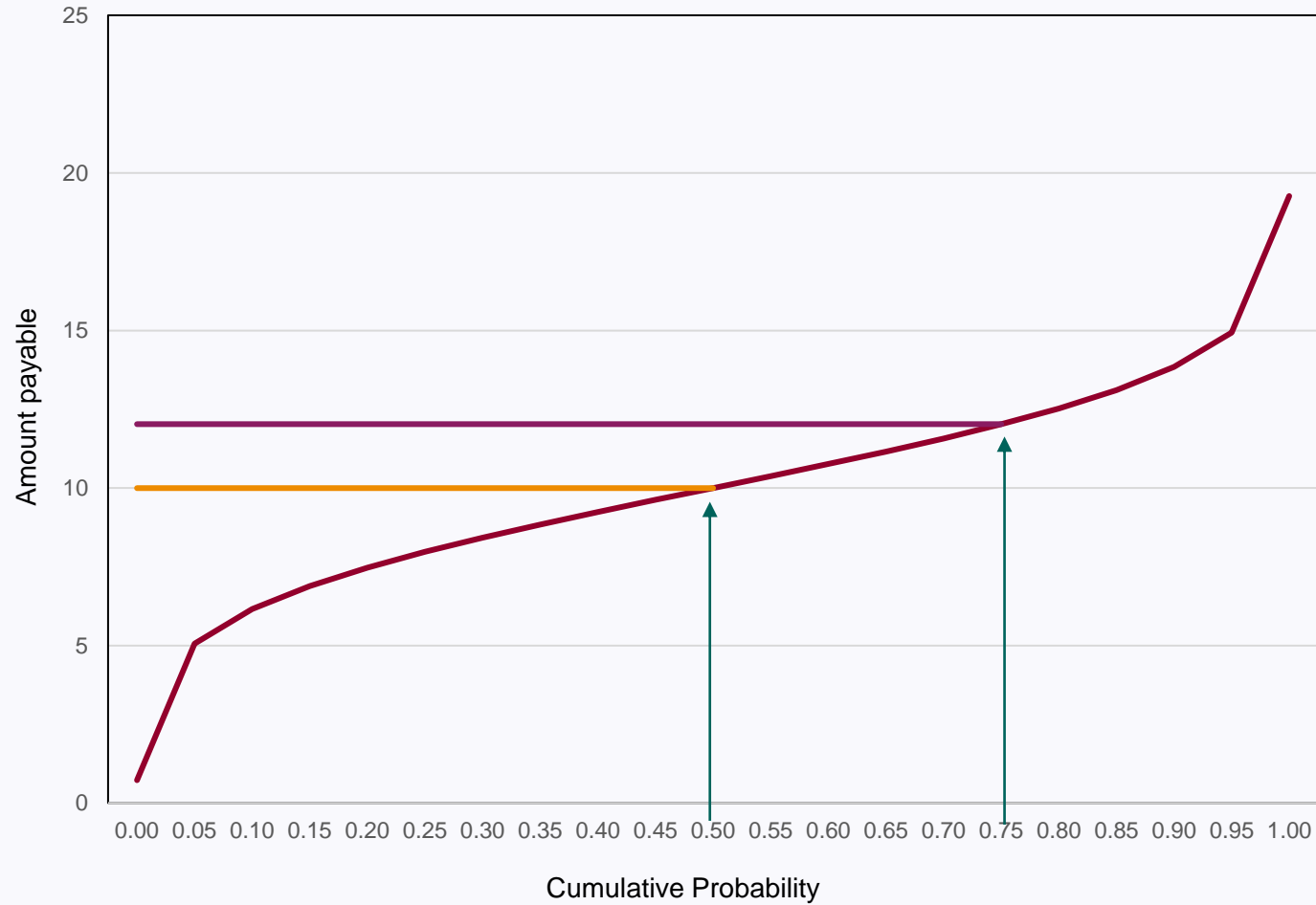
Risk adjustment in pictures



The risk adjustment
set at the 75th
percentile is

18,853,794 – 17,385,171

Risk adjustment in pictures



Mean = 10

Risk Adjustment = $12 - 10 = 2$

VaR of RA = 75%ile

(This is a symmetrical distribution so mean = median.)



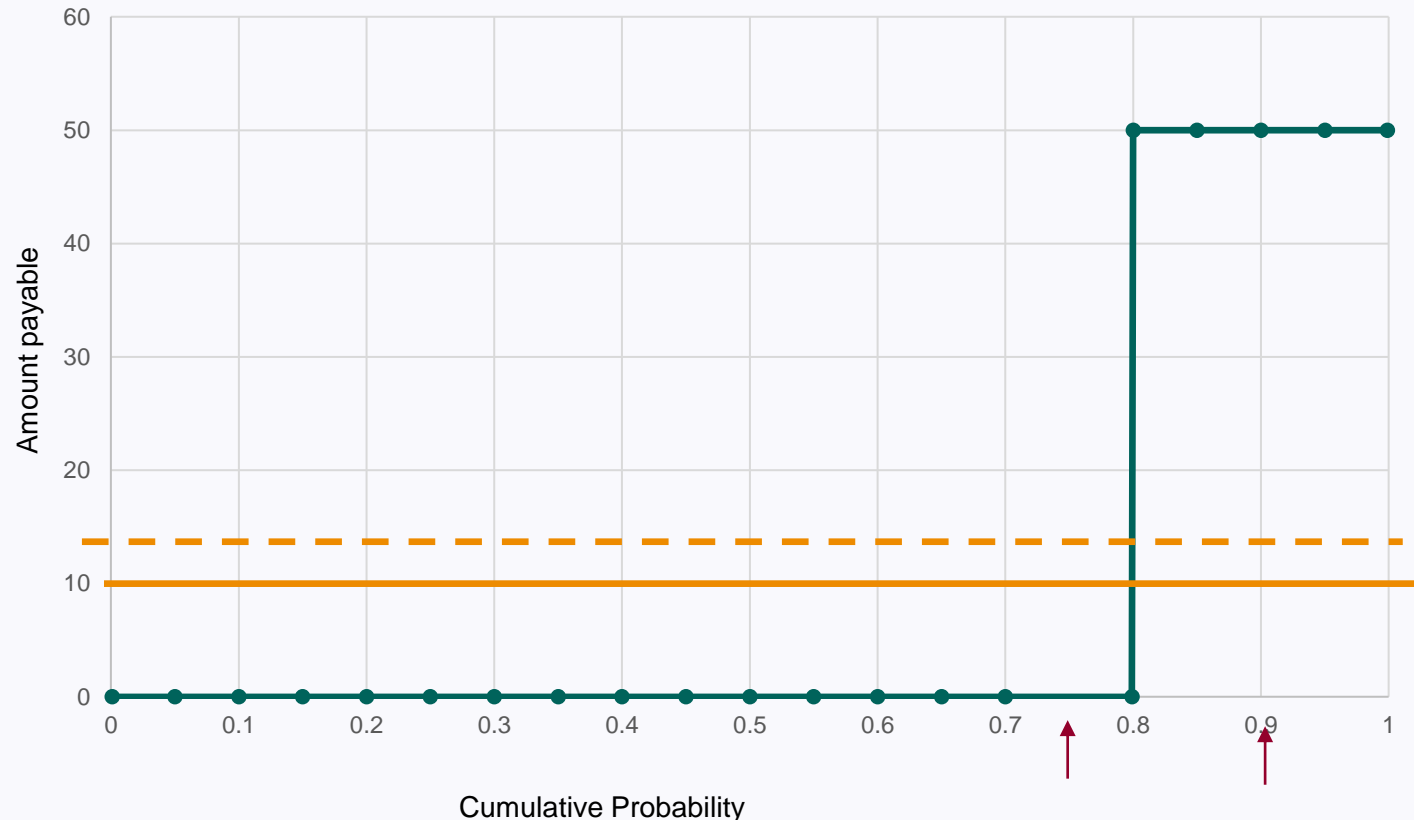
RA Complexities – within government

- No current view of the distribution of losses (Solvency II concepts)
- Lack of data to derive distributions
- Extreme remote probabilities
- Individual nature of contracts and binary contracts
- For these reasons an exemption exists that the VaR percentage is not required – but a Risk Adjustment is still needed.



Risk adjustment – example complexity

HMG holds single risk – pay £50m with probability 20% (Mean = 10)



1) Risk Margin to be set at 75%

at 75% point the expected payment is 0
so the Risk Adjustment is $0 - 10 = -10$

2) Risk Margin to be set at 90%

at 90% point expected payment is £50
so risk adjustment – full potential cost

3) Risk Margin to be set at £5m

at £15m expected cost VAR does not exist
– only possible values are 0 or 50

4) What if the probability of an event is less
than 1%?

VAR would always exceed 99%



Contractual service margin – GMM only

The contractual service margin is a component of the asset or liability for the group of insurance contracts that represents the unearned profit the entity will recognise as it provides insurance contract services in the future.

The contractual service margin on initial recognition of a group of insurance contracts at an amount that, (unless onerous), results in no income or expenses arising

So at initial recognition

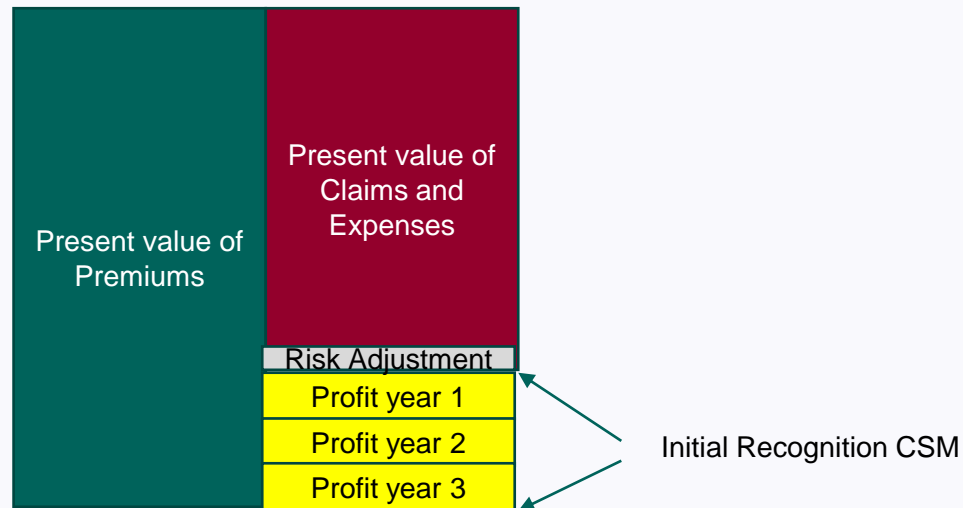
CSM = Present Value of Cashflows - Risk adjustment (i.e. future profit to emerge)

The CSM is then earned over the term of the contract

THE CSM CAN'T BE NEGATIVE – IF ONEROUS IMMEDIATE RECOGNITION IN P&L



Contractual Service Margin



Initially the three years of profit form the CSM

Subsequently the expected CSM would be the remaining years on the cover

If all is not as expected then differences emerge as profit and loss and are explained through reconciliations.



Contractual service margin – Example 1

Payments expected of 200 per year for 3 years

Premium payable now = 900

Risk adjustment = 120

Simple discount rate of 5% for all years

PV of Future Cashflows = $900 - (200 / 1.05 + 200 / 1.05^2 + 200 / 1.05^3) = 355$

CSM = $355 - 120 = 235$

(The 235 and the 120 held on balance sheet then each released over 3 years)



Contractual service margin – Example 2

Payments expected of 350 per year for 3 years

Premium payable now = 900

Risk adjustment = 120

Simple discount rate of 5% for all years

PV of Future Cashflows = $900 - (350 / 1.05 + 350 / 1.05^2 + 350 / 1.05^3) = -53$

CSM = $-53 - 120 = -173$ (< 0 so set to 0 and 173 immediate hit to P&L)



Earning the Contractual service margin

- HMG takes on a liability to pay in 1 year

Amount	Probability
£0m	50%
£10m	30%
£50m	20%

and also in 2 years

Amount	Probability
£0m	70%
£5m	20%
£50m	10%

Weighted Best Estimate = £13m in year 1 and £6m in year 2

So do you earn it 13 / 19 in year 1 and 6 / 19 in year 2 ?

NO! Earning based on coverage units – i.e. what could be paid out

Max payout is £50 per year hence earned equally over the 2 years.



Acquisition cashflows

- An entity shall allocate insurance acquisition cash flows to groups of insurance contracts using a systematic and rational method
- When using the PAA method can treat acquisition expenses as a cost as they occur – if term no more than 1 year (optional – compulsory for public accounts)
- If not PAA then acquisition expenses are an asset which is then spread over the term of the CSM – i.e. they are earned.



Subsequent measurement – Balance Sheet

The carrying amount of a group of contracts =

Liability for remaining coverage : (For PAA = Unearned Premium)

Fulfilment cashflows – from valuation date forwards

Risk adjustment – from valuation date forwards

CSM – reflective of profits on future service (IR Discount Rate used)

Liability for incurred claims (includes a risk adjustment and a VAR figure disclosed)



P&L Components

Profit or loss	
Insurance service result	
Insurance revenue	+ Revenue for coverage provided in the period
	+ Revenue for release of risk adjustment in the period
Insurance service expenses	- Expected claims and other insurance service expenses
	+/- Changes in cash flows and in risk adjustment that relate to coverage provided in the <i>period</i> and in the <i>past</i> ^{3,4}
Insurance finance expenses	
- Unwind of discount rates	+/- Changes in discount rates ¹
Other comprehensive income (optional)	
Insurance finance expenses	+/- Changes in discount rates ¹

Choice of approach



Subsequent measurement – Profit and Loss

Insurance Revenue (effectively deferred premium earned)

- reduction in liability for future coverage due to cover provided this period
- if using PAA it is portion of premium for this period

Insurance Services Expenses (what actually happened this period)

- increase in liability due to claims and expenses incurred this period
- changes in fulfilment cashflows for incurred claims and expenses
- losses on onerous contracts

Insurance Finance Income/Expenses (the non insurance risk element)

- Effect of time value of money and financial risk



P&L Components example

2 years remain on a contract

Expect to pay £200 claims in year 1 and £300 claims in year 2

Expect expense of £50 each year

CSM currently at £240 and Risk Adjustment at £80 – each to be earned equally over 2 years

Ignore discounting for simplification

Actually only pay £160 claims in year 1 and expense is £30

Insurance Revenue	£410	(£250 cashflows + £120 CSM + £40 RA)
Insurance Service Expenses - expected	£ -250	(£200 claims + £50 expense)
Insurance Service Expenses - variance	£ +60	(£40 from claims + £20 expenses)
Total	£220	

Profit or loss	
Insurance service result	
Insurance revenue	+ Revenue for coverage provided in the period
	+ Revenue for release of risk adjustment in the period
Insurance service expenses	- Expected claims and other insurance service expenses
	+/- Changes in cash flows and in risk adjustment that relate to coverage provided in the <i>period</i> and in the <i>past</i> ^{3,4}
Insurance finance expenses	
- Unwind of discount rates	+/- Changes in discount rates ¹
Other comprehensive income (optional)	
Insurance finance expenses	+/- Changes in discount rates ¹

	Time 0	Time 1
Cashflows	£600	£350
CSM	£240	£120
Risk adjustment	£80	£40
Total Liability Remaining Coverage	£920	£510



P&L Components example

Expect to pay £200 claims in year 1 and £300 claims in year 2

Expect expense of £50 each year

CSM currently at £240 and Risk Adjustment at £80 – each to be earned equally over 2 years

Ignore discounting for simplification

Actually only pay £160 claims in year 1 and expense is £30

Now only expect £230 claims in year 2

Insurance Revenue	£410	(£320 cashflows + £50 CSM + £40 RA)
Insurance Service Expenses - expected	£ -250	(£200 claims + £50 expense)
Insurance Service Expenses - variance	£ +60	(£40 from claims + £20 expenses)
Total	£220	

Profit or loss	
Insurance service result	
Insurance revenue	+ Revenue for coverage provided in the period
	+ Revenue for release of risk adjustment in the period
Insurance service expenses	- Expected claims and other insurance service expenses
	+/- Changes in cash flows and in risk adjustment that relate to coverage provided in the <i>period</i> and in the <i>past</i> ^{3,4}
Insurance finance expenses	
	- Unwind of discount rates
	+/- Changes in discount rates ¹
Other comprehensive income (optional)	
	+/- Changes in discount rates ¹

	Time 0	Time 1	Time 1 Revised
Cashflows	£600	£350	£280
CSM	£240	£120	£190
Risk adjustment	£80	£40	£40
Total Liability Remaining Coverage	£920	£510	£510

The year 2 expected reduction increases CSM and does not come through to profit in year 1



Reconciliations and disclosures

CSM

Risk Adjustment

Liability for Remaining Coverage

Liability for Incurred Claims

Balance Sheet

Statement of Financial Position

VaR value for Risk Adjustment (exemption applies)

Risk adjustment methodology

Discount rates used

Materiality will need to be considered



Transition – Date

The transition date is the beginning of the annual reporting period immediately preceding the date of initial application. For entities following the FReM the transition date is proposed to be

1 April 2024

unless entity is adopting standard earlier.



Transition – 3 approaches

- **Full retrospective**
- As at 01/04/2024 need to...
 - Identify, recognise and measure each group as if IFRS17 always applied
 - Identify, recognise and measure assets for acquisition cash flows as is IFRS17 always applied
 - Derecognise existing balances that would not exist in IFRS17 always applied
 - Recognise any resulting net difference in equity

This requires the ability to assess what decisions would have been made at the outset of contracts that may have been created some time ago (without using knowledge of what has transpired since!)



Transition – 3 approaches

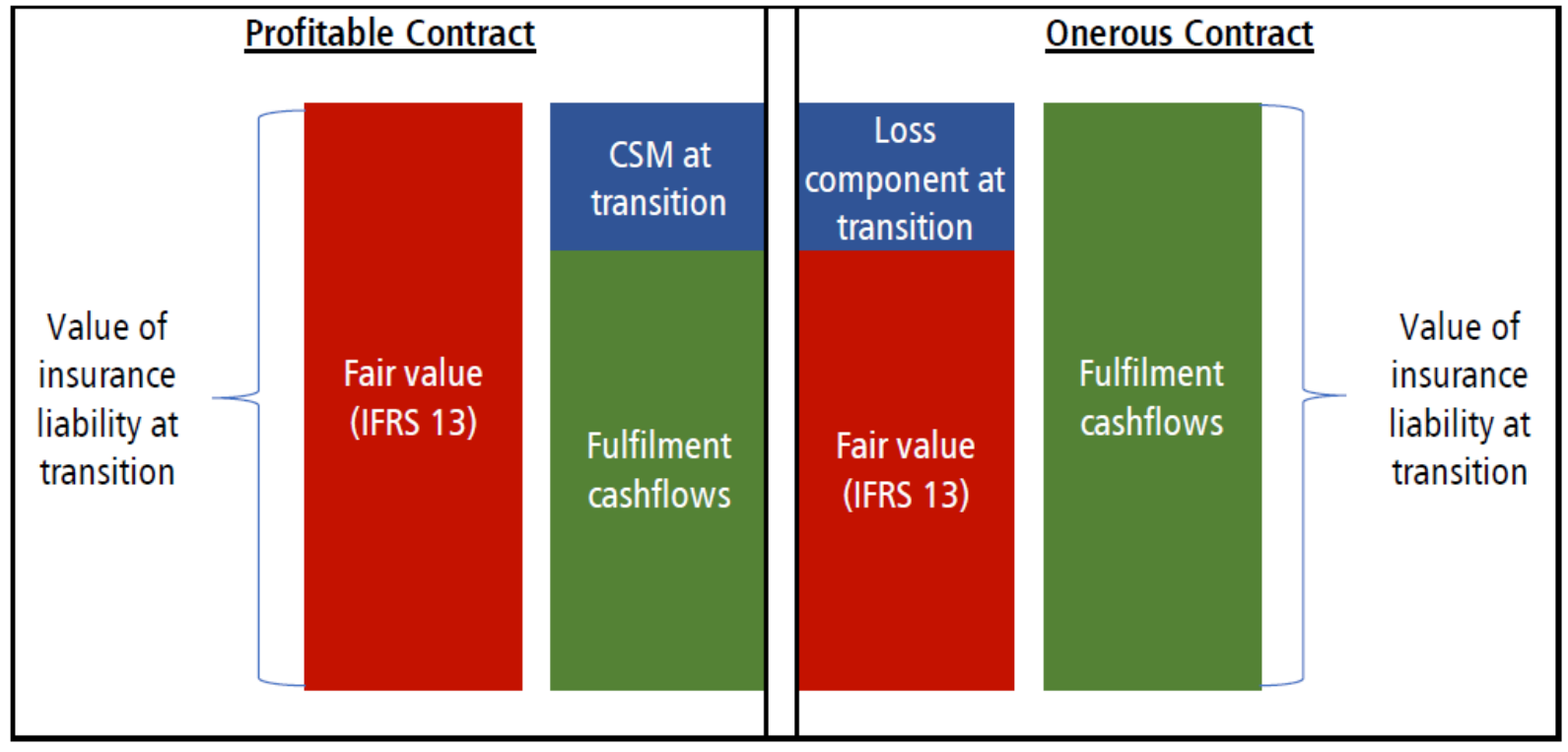
- Full retrospective

If and only it is impracticable to do so then...

- Modified retrospective (Not for those following FReM)
- **Fair value (Specified by HMT)**
 - Calculate CSM (or loss component) as difference between fair value of group of contracts at transition date and fulfilment cash flows of contracts.
 - Fair value (as per IFRS13) is based on value to transfer liability between market participants in an orderly transaction.



Transition – Fair value



Transition – Fair Value

Practical Expedient

Insurance contract liabilities can be valued at fulfilment cashflows for onerous contracts where no premium is payable.

Why is this needed...



Transition – Fair Value - Example

- HMG takes on uninsurable risk – 10 years – no premium payable
- Probability of a claim in any 1 year is 1 in 10,000 if claim occurs cost is £10m
- Expected claims each year = £1,000 so fulfilment cashflows = £10,000

- 5 years in – future fulfilment cashflows = £5,000 (no claims)
- An initial loss of £10,000 would have hit P&L followed by 5 * £1,000 profit
- CSM would = 0

- Under fair value – an insurer would now take on but due to extreme risk and uncertainty requires a premium of £100,000 to take on risk

- $CSM = £100,000 - £5,000 = £95,000$ immediate hit to P&L followed by profits of £19,000 each year.



What assistance can GAD provide?

Probability based projected cashflow calculations

Data requirements

Model building

Risk adjustment calculations

VaR calculations

Discount rates





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