















## Example Distinct investment component

components	Comments
<u>Life contract with surrender</u>	Component can <u>only be measured by reference to</u>
<u>value</u> linked to investment	<u>other component (eg high likelihood of claim affects</u>
account	measurement of investment)
<u>Pension contract</u> with	Investment component determines insurance risk,
<u>investment</u> based	policyholder can <u>only benefit from one with the</u>
accumulation	<u>other</u>
<u>Life contract with linked</u> <u>investment</u> , client receives the higher of the two values	Component can <u>only be measured by reference to</u> <u>other component</u>



























# Experience adjustments

IFRS 17 requires to <u>present experience adjustments</u>. They appear because of two reasons: <u>adjustments of real incurred claims</u> in the period and <u>adjustments of premiums</u> in the period. <u>What changes in premiums should have happened in order to be presented as experience adjustments? <u>Could it be less/more premiums</u> received than previously estimated or something else? How to account it? Should we decrease/increase the LRC when the expected premiums are not paid/already paid? How do we present it in P&L?</u>

See next slide

Week 6, Question 2







#### Example Experience adjustments: Unexpected lapses

	Debit	Credit
Cash received	750	
Insurance liability		750
Accounting for cash received		
Revenue (experience adjustment) (applying B97(c))	250	
Insurance liability		250
Accounting for the experience adjustment		
CSM	400	
Claims expense	600	
Revenue (expected)		1 000
Accounting for CSM release and P&L presentation		

Example

## Experience adjustments: Unexpected lapses

Income statement (Debit)/Credit					
Revenue (Expected: 1 000 – experience: 250)			750		
Claims expense			-600		
Underwriting profit (CSM release: 400 – experience: 250)					
Liability for remaining coverage (Debit)/Credit	Total				
Opening balance	-400	400	0		
Premiums received	750	-	750		
Claims paid	-600	-	-600		
Experience adjustment	250	-	250		
CSM release	-	-400	-400		
Closing balance	-	-	-		

32

# Example Experience adjustments: Unexpected retention » In current period insurer expects premiums of \$1 000 from a group » However, due to unexpected retention, it receives premiums of \$1 750 » The unexpected retention obliges it to provide future services – the present value of that obligation is \$550

- » The insurer expected and paid claims of \$600
- » The insurer expected to release CSM of \$400 in the period
- » As a consequence of the experience adjustment, it now expects CSM release to increase by 100 in the period

Week 6, Question 2

Example

# Experience adjustments: Unexpected retention

	Debit	Credit
Cash received	1 750	
Insurance liability		1 750
Insurance liability	750	
Insurance liability		550
CSM (applying B96(a))		200
Accounting for the experience adjustment		
CSM	500	
Claims expense	600	
Revenue (expected)		1 100
Accounting for CSM release and P&L presentation		

34

# Example Experience adjustments: Unexpected retention

Income statement (Debit)/Credit			
Revenue (Expected: 1 000 + experience: 100)			750
Claims expense			-600
Underwriting profit (CSM release: 400 + experience: 100)			
Liability for remaining coverage (Debit)/Credit	FCF	CSM	Total
Opening balance	-400	400	0
Premiums received	1 750	-	1 750
Claims paid	-600	-	-600
Experience adjustment	-200	200	-
CSM release	-	-500	-500
Closing balance	550	100	-650



#### Example Experience adjustments: Late payment

	Debit	Credit
Cash received	750	
Insurance liability		750
Insurance liability (cash to be received in future period)	250	
Insurance liability (cash not received in current period)		250
Note that B97 only forbids adjusting CSM		
CSM	400	
Claims expense	600	
Revenue (expected)		1 000
Accounting for CSM release and P&L presentation		

Example

## Experience adjustments: Late payment

Income statement (Debit)/Credit					
Revenue (Expected: 1 000)			1 000		
Claims expense			-600		
Underwriting profit (CSM release: 400)					
Liability for remaining coverage (Debit)/Credit	FCF	CSM	Total		
Opening balance	-400	400	0		
Premiums received	750	-	750		
Claims paid	-600	-	-600		
Experience adjustment	-	-	250		
CSM release	-	-400	-400		
Closing balance	-250	-	-		

38

## **Coverage units**

Could you please give <u>some recommendations for determining coverage units</u> for <u>annuities</u>, which contain both an investment and an insurance component (in particular, cases of immediate annuity and deferred annuity).

If the policyholder <u>can benefit from the investment component on its own</u>, then:

- » Consider normal 'fee' and duration of accumulation component
- » Consider normal margin and duration of annuity component
- » Calculate expected CSM of both components and allocate proportionally

If the policyholder <u>cannot benefit</u> from the investment component on its own, then CSM is allocated only to the annuity component

Once pattern is established, apply consistently Week 7, Question III.3

Example Coverage units						
» 5-year life annuity contracts, 5 with expected total profit of 50, 5 with expected total profit of 40, all contracts provide the same annuity per year						
» insurer expects that <u>all po</u>	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
Remaining coverage units	50	50	40	30	20	10
Coverage units per year		10	10	10	10	10
Discounted coverage units		45.5	37.2	28.6	19.5	10
Unearned profit	90.0	94.5	77.4	59.4	40.6	20.8
Earned profit		20.8	20.8	20.8	20.8	20.8
10 contracts forWeek 7, Question10 x 5 = 5	5 years 50	94.5 x (10/45.5)	77.4 x (10/37.2)	59.4 x (10/28.6)	40.6 x (10/19.5)	20.8 x (10/10) 40

## Example *Coverage units*

» 5-year life annuity contracts, 5 with expected total profit of 50, 5 with expected total profit of 40, all contracts provide the same annuity per year

» Insurer expects that	one policyholder will	die per year, discount rate	is 5%
------------------------	-----------------------	-----------------------------	-------

	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
Remaining coverage units	40	40	31	22	13	6
Coverage units per year		10	9	8	7	6
Discounted coverage units		36.8	28.2	20.1	12.7	6
Unearned profit	90.0	94.5	72.3	51.6	32.6	15.4
Earned profit		25.7	23.1	20.5	18.0	15.4
Week 7, Question III.3		94.5 x (10/36.8)	72.3 x (9/28.2)	51.6 x (8/20.1)	32.6 x (7/12.7)	15.4 x (6/6) <sub>41</sub>









Example Technical reserves

» Insurer opening retained income of	f \$8 000, curre	nt period inco	ome of \$4 000
IFRS and prudential liability/reserves	IFRS 17 LRC	Technical reserve	Difference
Year end 2021 balance	12 500	15 500	3 000 —
Year end 2022 balance	14 500	18 000	3 500
IFRS Financial statements (Debit)/credit	Retained income	Technical reserve	Total equity
Opening balance 2021	5 000	3 000	8 000
Profit and loss for the year	4 000	-	4 000
Transfer to technical reserve	-500	500	-
Closing balance	8 500	3 500	12 000

## Example Technical reserves

Prevailing practice in jurisdictions were similar occurs - either:

» IFRS 17 liability is reversed and replaced with full technical reserve, or

» IFRS 17 liability is

» Retained and relabelled, but

» If smaller then technical reserve, and additional reserve is created

» Greater of approach



Example Probability weighted cash flows

» Two year policyholder investment of \$10 000, policyholder earns 80% of
interest rate, but guaranteed return of 4%

Scenarios	Nominal cash flow	Discounted cash flow	Implied CSM	Probability	Weighted cash flow
Interest rate of 2%	10 816	10 396	-396	5%	520
Interest rate of 4%	10 816	10 000	0	10%	1 000
Interest rate of 6%	10 983	9 775	225	45%	4 399
Interest rate of 8%	11 321	9 706	294	35%	3 397
Interest rate of 10%	11 665	9 641	359	5%	482
Weighted average cash flo	w		202		9 798
Week 7, Question I.2					49









	ansition disclosures				
» If	applying modified retro » Explain methods used » Provide separate reco	ospective or fair value app and disaggregated inforr nciliations of CSM, eg:	nation		
	Contractual service margin reconciliation				
	Fully retrospective	Modified retrospective	Fair value		
	Existing contracts (unless impracticable) and new business	Existing contracts if retrospective application is impracticable	Existing contracts if retrospective application is impracticable		



















Week 7, Question III.2











 What is a participating insurance contract?

 Significant insurance risk

 Issuer
 Significant insurance risk

 Compensates on the occurrence of an insured event

 AND some cash flows vary with underlying items

 Payments to policyholders vary with returns on underlying items through participation features

































### Variable fee approach *Simplified example*

Journals	Debit	Credit
Asset return	135	
Fair value income		135
Return on assets actually held (which are also the u	nderlying items)	
Fair value expense (underlying)	135	
Fulfilment cash flows		105
Contractual service margin		30
Allocation of fair value on underlying item to insura	nce liability	•

97





