



IFRS 17 Pro	gramme
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Session 1	Recap: Core model and premium allocation approach (PAA)
Session 2	PAA with comparison to unearned premium
Session 3	Challenges in applying PAA
Session 4	Disclosure and presentation requirement
Session 5	Transition, transition presentations and disclosures
Session 6	Audit reports and compliance with IFRS
Session 7	
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Con	siderations		
» A n	number of fact	ors need to be considered:	
Fa	ctor	Considerations	
Со	ontract terms	Do the specific contract terms allow the insurer to: • cancel, or • fully reprice the contract	
Im	plied terms	<ul> <li>Are there potential implied terms, for example:</li> <li>Past practice</li> <li>Legal or prudential requirements</li> <li>Consumer protections</li> </ul>	
Int	tention	<ul> <li>Intention does not matter <u>unless</u> it has created a legitimate and actionable expectation for policyholder to enforce</li> </ul>	
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<b>»</b>	Insurer issues four types of car insurance contracts:	
	A contract that	Automatically eligible (Y/N)
1	Can be cancelled by either party with 30 days notice, expected to continue for 2 years	
2	Signed for 1 year, automatic renewal, annual inflation increase, <b>only</b> policyholder can cancel	
3	Signed for 1 year, automatic renewal, annual increase decided by Addis, <b>only</b> policyholder can cancel	
4	Signed for one year, no automatic renewal	









Example					
One year vehicle contract	– acquisitior	n cost			
10%	Ins	Insurer			
Interest					
	Со	re			
Initial payment	Debit	Credit	Debit	Credit	
Acquisition cost asset	3 000		3 000		
Cash		3 000		3 000	
	3 000		3 000		
Insurance liability					
Insurance liability Acquisition cost asset		3 000		3 000	

Example

<b>A</b>					
Inp	vear vei	nicie co	ntract	- initial	reconnition
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10% Interest	Policyholder	\$1 000 000 \$56 873 \$900 000	Ins	Insurer	
		PA	A	Со	re
Initial recognition		Debit	Credit	Debit	Credit
Insurance liability (premiums)		-		1 000 000	
Insurance liability (claims)			-		853 088
Insurance liability (risk)			-		56 873
Insurance liability (CSM)			-		90 039
Insurance liability		3 000		3 000	

# Example

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Policyholder	\$1 000 000	Insurer		
	PA	A	Со	re
Premium receipt		Credit	Debit	Credit
Cash			1 000 000	
Insurance liability (premiums)		1 000 000		1 000 000
	Policyholder receipt e liability (premiums)	Policyholder PA receipt 1 000 000 re liability (premiums)	PolicyholderInsPAAreceiptDebitCredit1 000 0001 000 000ce liability (premiums)1 000 000	PolicyholderInsurerPolicyholderInsurerPolicyholder <t< td=""></t<>

Example

One year vehicle contract – Interest and payment of claim

10% Interest	Policyholder	Go to example \$75 000	Ins	surer	
		PA	A	Со	re
End month 1		Debit	Credit	Debit	Credit
Interest expense		8 308		8 308	
Insurance liability			8 308		8 308
Claim expense		75 000		75 000	
Cash			75 000		75 000
Insurand	e liability		930 308		930 308

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# Example

One year vehicle contract – Profit recognition journals

	PA	A	Core		
End month 1	Debit	Credit	Debit	Credit	
Insurance liability (CSM)	87 652		7 652		
Insurance liability (Risk)			5 000		
Insurance liability (claims)			75 000		
Revenue		87 652		87 652	
Insurance liability		842 656		842 656	

Applying B126 with B125 Alternatively, applying B126

Example

One year vehicle contract – amortisation of acquisition cost

	PAA		Core	
End month 1	Debit	Credit	Debit	Credit
Acquisition cost expense	264		264	
Revenue		264		264
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Example One year vehicle contract – Income statement end month 1

	PAA		Core	
Income statement	Debit	Credit	Debit	Credit
Revenue		87 916		87 916
Claims	75 000		75 000	
Acquisition expense	264		264	
Underwriting margin		12 652		12 652
Breakdown				
CSM				7 652
Risk margin				5 000
Underwriting margin				12 652

# Example

One year vehicle contract – <u>Income statement 1<sup>st</sup> 6 months</u>

	PA	PAA		Core	
Income statement	Debit	Credit	Debit	Credit	
Revenue		527 495		527 495	
Claims	450 000		450 000		
Acquisition expense	1 582		1 582		
Underwriting margin		75 913		75 913	
Breakdown					
CSM				45 913	
Risk margin				30 000	
Underwriting margin				75 913	
				27	

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# Reasonable approximation Drivers of different outcomes

Event	РАА	Core
Change in <u>expected</u> future claims	No effect on PAA <u>if not</u> <u>onerous</u>	Change in liability components, and consequential change in immediate profitability
		20



# Example

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End month 1	Dehit	Credit	Dehit	Credit
	Debit	Credit	Debit	creuit
Opening balance		510 908		510 908
Insurance liability (CSM)	-		23 786	
Insurance liability (Claims)		-		23 786
Insurance liability		510 908		510 908

# Example

One year vehicle contract – Interest and payment of claim

	PAA		Core	
End month 7	Debit	Credit	Debit	Credit
Interest expense	4 258		4 258	
Insurance liability		4 258		4 258
Claim expense	75 000		75 000	
Cash		75 000		75 000
Insurance liability		440 166		440 166

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Example One year vehicle contract – Profit recognition journals

	PAA		Core	
End month 7	Debit	Credit	Debit	Credit
Insurance liability (CSM)	87 652		3 571	
Insurance liability (Risk)			5 000	
Insurance liability (claims)			75 000	
Revenue		87 652		83 571
Insurance liability		427 514		431 594

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# Reasonable approximation Drivers of different outcomes

Event	ΡΑΑ	Core
Change in <u>expected</u> future claims	No effect on PAA <u>if not</u> <u>onerous</u>	Change in liability components, and consequential change in immediate profitability
Change in interest rates	No change if not onerous	Change in liability, and consequential change in immediate profitability
		immediate profitability
		33

Example One year vehicle contract » Interest rates change at en	t — end half year d of half year from 109	% to 5%. No c	change in
expected cash flows:			
Month		Original	Revised
Month 7 – 12 (per month	ı)	75 000	75 000
Present value of cash out	flows	437 161	443 510
» Change in present value	e due to interest rate is	s \$6 348	

Example

# One year vehicle contract – change in interest rate

	PAA		Core	
End month 1	Debit	Credit	Debit	Credit
Opening balance		510 908		510 908
Interest rate change expense	-		6 348	
Insurance liability (Claims)		-		6 348
Insurance liability		510 908		517 257
				35

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Example One year vehicle contract – Interest and payment of claim

	PA	А	Со	re
End month 7	Debit	Credit	Debit	Credit
Interest expense	4 258		2 463	
Insurance liability		4 258		2 463
Claim expense	75 000		75 000	
Cash		75 000		75 000
Insurance liability		440 166		444 719

# Example

# One year vehicle contract – Profit recognition journals

	PAA		Core	
End month 7	Debit	Credit	Debit	Credit
Insurance liability (CSM)	87 652		7 652	
Insurance liability (Risk)			5 000	
Insurance liability (claims)			75 000	
Revenue		87 652		87 652
Insurance liability		427 514		432 067

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# Reasonable approximation Drivers of different outcomes

Event	ΡΑΑ	Core
Change in <u>expected</u> future claims	No effect on PAA <u>if not</u> <u>onerous</u>	Change in liability components, and consequential change in immediate profitability
Change in interest rates	No change if not onerous	Change in liability, and consequential change in immediate profitability
Uneven earnings pattern	Less sensitive	More sensitive, especially risk release



Reasonable a Susceptibility	approximation /	
» The different	iators are very sensitive to:	
Factor	Susceptibility	
Duration of coverage period	<ul> <li>Changes in interest rates</li> <li>Unexpected average claims experience</li> <li>Changes in assumptions</li> </ul>	
Complexity	<ul> <li>Unexpected average claims experience</li> <li>Changes in external factors (eg forex rates)</li> <li>Changes in assumptions</li> </ul>	
Variability of risk	<ul><li>Unexpected average claims experience</li><li>Changes in assumptions</li></ul>	
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Identify portfolios	Based on internal management information, and
of contracts	Type of risk
Determine whether subsets are onerous	<ul> <li>Facts and circumstances test</li> <li>Pricing data: <ul> <li>Formalised process of documenting pricing methodology</li> <li>Cataloguing and building audit trail, or</li> </ul> </li> <li>Reserving data <ul> <li>Full reserving calculation</li> </ul> </li> <li>Other (strategy, marketing etc)</li> </ul>

Determine whether groups are onerous• Facts and circumstances test • Other information (eg identification of pricing error, losses on completed contracts)• Pricing data • Changes in more recent pricing • Reserving data • Full reserving calculation
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### Example Pattern of release

» Premium	of \$100,000 receiv	ved monthly co	mmencing ir	lanuarv
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	Jan	Feb	Mar	Apr	May	Jun
Premium received (\$'000)	100.0	100.0	100.0	100.0	100.0	100.0
Average rainfall (mm)	108	90	78	36	10	8
Allocated revenue (\$'000)	200.3	166.9	144.7	66.7	18.6	14.8
	Jul	Aug	Sep	Oct	Nov	Dec
Premium received (\$'000)	100.0	100.0	100.0	100.0	100.0	100.0
Average rainfall (mm)	2	4	22	68	102	119
Allocated revenue (\$'000)	3.7	7.4	40.8	126.1	189.2	220.7
						54
						54

### Example Of different patterns of release

Types of contracts	Example
Vehicle contracts	<ul><li>If conditions causing accidents are seasonal:</li><li>Snow, hail, rain</li><li>More and less frequent use of vehicles</li></ul>
Personal accident	<ul><li>If personal accidents are driving by events:</li><li>Sports injuries (such as skiing or water sports)</li></ul>
Fire insurance	<ul><li>If fires are seasonal:</li><li>Wild fires in dry season, or</li><li>Fires caused by electricity overload in winter</li></ul>
Travel insurance	<ul> <li>If typically linked to popular holiday times</li> </ul>

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Incurred by	not reported
Mechanistic	<ul> <li>Based on historic average time between occurrence of event and reporting</li> <li>Multiplied by average daily claims</li> <li>Will differ between products (eg health care and car accident) and severity (big accidents and small accidents)</li> </ul>
Judgemental	<ul> <li>Based on events (for example floods)</li> <li>Based on weighted analysis of recent history</li> <li>Based on market information (for example inflation)</li> </ul>
Mixture	Combination of above factors







# Present value of future cash flows

# » The principle is relatively simple. For a contract with the following possible outcomes (10% discount rate):

	Scenario	Prob	Present value	PV x probability
1.	Pay claim of 5 000 in 6 months	5%	4 761	238
2.	Pay claim of 5 000 in 12 months	5%	4 545	227
3.	Pay no claim, pay rebate of 1 000	80%	909	727
4.	Pay no claim, pay no rebate	10%	0	0
Prol	oability weighted cash outflow			1 193
The «	challenge is the data and the nui Eg assumptions of different sizes	mber c of claiı	of scenarios ms, or lapse rates	5

















Example		
» 2 year contract, premium \$24 000, expected interest is zero, risk margin is zero, what is t	d claims yr 1 & 2 he expected loss	\$12 500, ?
	Cash flow	Present value
Cash inflow (premium)	24 000	
Immediate		24 000
Cash out flow (claims)	-25 000	
Interest rate is zero		-25 000
Risk margin (zero)		0
		1 000

### Onerous contracts Example

- » 2 year contract,
- » Immediate premium of \$1 000,
- » Expected claims of \$550 in year 1 and \$550 year 2

Jalance sheetInceptionYear 0Year 1Year 2RefInsurance liability OB-Insurance liability OB </th <th>2 yr contract, premium</th> <th>\$1 000, expe</th> <th>ected clain</th> <th>ns yr 1 \$55</th> <th>0 and yr 2 S</th> <th>\$550</th>	2 yr contract, premium	\$1 000, expe	ected clain	ns yr 1 \$55	0 and yr 2 S	\$550
nsurance liability OB - remium received - evenue recognised - oss component -100 17.58	Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
remium received levenue recognised oss component100 17.58	Insurance liability OB	-				
evenue recognised     -       oss component     -100       losing balance     -100	Premium received	-				
oss component -100 17.58	Revenue recognised	-				
losing balance -100	Loss component	-100				17.58
	Closing balance	-100				

Onerous contracts Example	5				
2 yr contract, premium	n \$1 000, expe	ected claim	ns yr 1 \$55	0 and yr 2	\$550
Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
Insurance liability OB	-	-100			
Premium received	-	-1 000			17.55(a)
Revenue recognised	-	-			
Loss component	-100	-			17.58
Closing balance	-100	-1 100			
Revenue	-				
Claims	-				
Loss component	100				
Underwriting loss	100				
					78

Example					
2 yr contract, premium	\$1 000, expe	ected claim	ns yr 1 \$550	) and yr 2	\$550
Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
Insurance liability OB	-	-100	-1 100		
Premium received	-	-1 000	-		17.55(a)
Revenue recognised	-	-	500		17.55(b)
Loss component	-100	-	50		17.58
Closing balance	-100	-1 100	-550		
Revenue	-				
Claims	-				
Loss component	100				
	100				

# **Onerous contracts**

Example

2 yr contract, premium \$1 000, expected claims yr 1 \$550 and yr 2 \$550

Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
Insurance liability OB	-	-100	-1 100		
Premium received	-	-1 000	-		17.55(a)
Revenue recognised	-	-	500		17.55(b)
Loss component	-100	-	50		17.58
Closing balance	-100	-1 100	-550		
Revenue	-		-500		
Claims	-		550		
Loss component	100		-50		
Underwriting loss	100		-		
					80

2 yr contract, premium	n \$1 000, expe	ected claim	ns yr 1 \$550	) and yr 2 \$	550
Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
Insurance liability OB	-	-100	-1 100	-600	
Premium received	-	-1 000	-	-	17.55(a)
Revenue recognised	-	-	500	500	17.55(b)
Loss component	-100	-	50	50	17.58
Closing balance	-100	-1 100	-550	-	
Revenue	-		-500		
Claims	-		550		
Loss component	100		-50		
Underwriting loss	100		_		

# Onerous contracts

Example

2 yr contract, premium \$1 000, expected claims yr 1 \$550 and yr 2 \$550

Balance sheet	Inception	Year 0	Year 1	Year 2	Ref
Insurance liability OB	-	-100	-1 100	-600	
Premium received	-	-1 000	-	-	17.55(a)
Revenue recognised	-	-	500	500	17.55(b)
Loss component	-100	-	50	50	17.58
Closing balance	-100	-1 100	-550	-	
Revenue	-		-500	-500	
Claims	-		550	550	
Loss component	100		-50	-50	
Underwriting loss	100		-	-	
					82



# Example One year vehicle contract – Profit recognition journals

End month 1
Insurance liability (CSM)
Insurance liability (Risk)
Insurance liability (claims)
Revenue

Insurance liability

Core			
Debit	Credit		
7 652			
5 000			
75 000			
	87 652		
	842 656		

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### Example Paragraph B126 method

# Calculate revenue directly:

	1 Jan
Opening balance	1 000 000
Interest	-
Revenue recognised	-

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# Example Paragraph B126 method

# Calculate revenue directly:

	1 Jan	31 Jan
Opening balance	1 000 000	1 000 000
Interest	-	8 333
Revenue recognised	-	-87 916

	1 Jan	31 Jan	28 Feb
Opening balance	1 000 000	1 000 000	920 417
nterest	-	8 333	7 670
Revenue recognised	-	-87 916	-87 916

# Example Paragraph B126 method

	1 Jan	31 Jan	28 Feb	31 Mar
Opening balance	1 000 000	1 000 000	920 417	840 172
Interest	-	8 333	7 670	7 001
Revenue recognised	-	-87 916	-87 916	-87 916

Example
Paragraph B126 method

# Calculate revenue directly:

	1 Jan	31 Jan	28 Feb	31 Mar	30 Apr
Opening balance	1 000 000	1 000 000	920 417	840 172	759 257
Interest	-	8 333	7 670	7 001	6 327
Revenue recognised	-	-87 916	-87 916	-87 916	-87 916

# Example Paragraph B126 method

# Calculate revenue directly:

T Juli	31 Jan	28 Feb	31 Mar	30 Apr
1 000 000	1 000 000	920 417	840 172	759 257
-	8 333	7 670	7 001	6 327
-	-87 916	-87 916	-87 916	-87 916
31 Aug	30 Sep	31 Oct	30 Nov	31 Dec
428 800	344 458	259 412	173 658	87 189
3 573	2 870	2 162	1 447	727
-87 916	-87 916	-87 916	-87 916	-87 916
	1 000 000 - - 31 Aug 428 800 3 573 -87 916	1 000 0001 000 000 </td <td>1 000 0001 000 000920 4171 000 0008 3337 670-87 916-87 916-87 91631 Aug30 Sep31 Oct428 800344 458259 4123 5732 8702 162-87 916-87 916-87 916</td> <td>1 000 0001 000 000920 417840 172-8 3337 6707 00187 916-87 916-87 91631 Aug30 Sep31 Oct30 Nov428 800344 458259 412173 6583 5732 8702 1621 447-87 916-87 916-87 916-87 916</td>	1 000 0001 000 000920 4171 000 0008 3337 670-87 916-87 916-87 91631 Aug30 Sep31 Oct428 800344 458259 4123 5732 8702 162-87 916-87 916-87 916	1 000 0001 000 000920 417840 172-8 3337 6707 00187 916-87 916-87 91631 Aug30 Sep31 Oct30 Nov428 800344 458259 412173 6583 5732 8702 1621 447-87 916-87 916-87 916-87 916

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