The Actuarial Profession
making financial sense of the future

Actuarial Life Conference 2011
Harish Gohil and Andrew Murray, Fitch Ratings

Impact of IFRS 4 Phase II

A Rating Agency Perspective

22 November 2011

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Analysts' perspective – Who are we?

Harish

- Credit analyst
- Actuary
- Life background
- Current role: life, non-life and reinsurance

Andrew

- Credit analyst
- Accountant
- Non-life background
- Current role: banking sector

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Agenda

- Current rating methodology
- IFRS 4 – Proposals
- IFRS4 – Key issues
- Impact on ratings and analysis
- Q&A

Key Credit Factors – Quantitative

- Capitalisation and leverage
- Debt service capabilities and financial flexibility
- Financial performance and earnings
- Investment and asset risk
- Asset/liability and liquidity management
- Reserve adequacy
- Reinsurance, risk mitigation and catastrophe risk

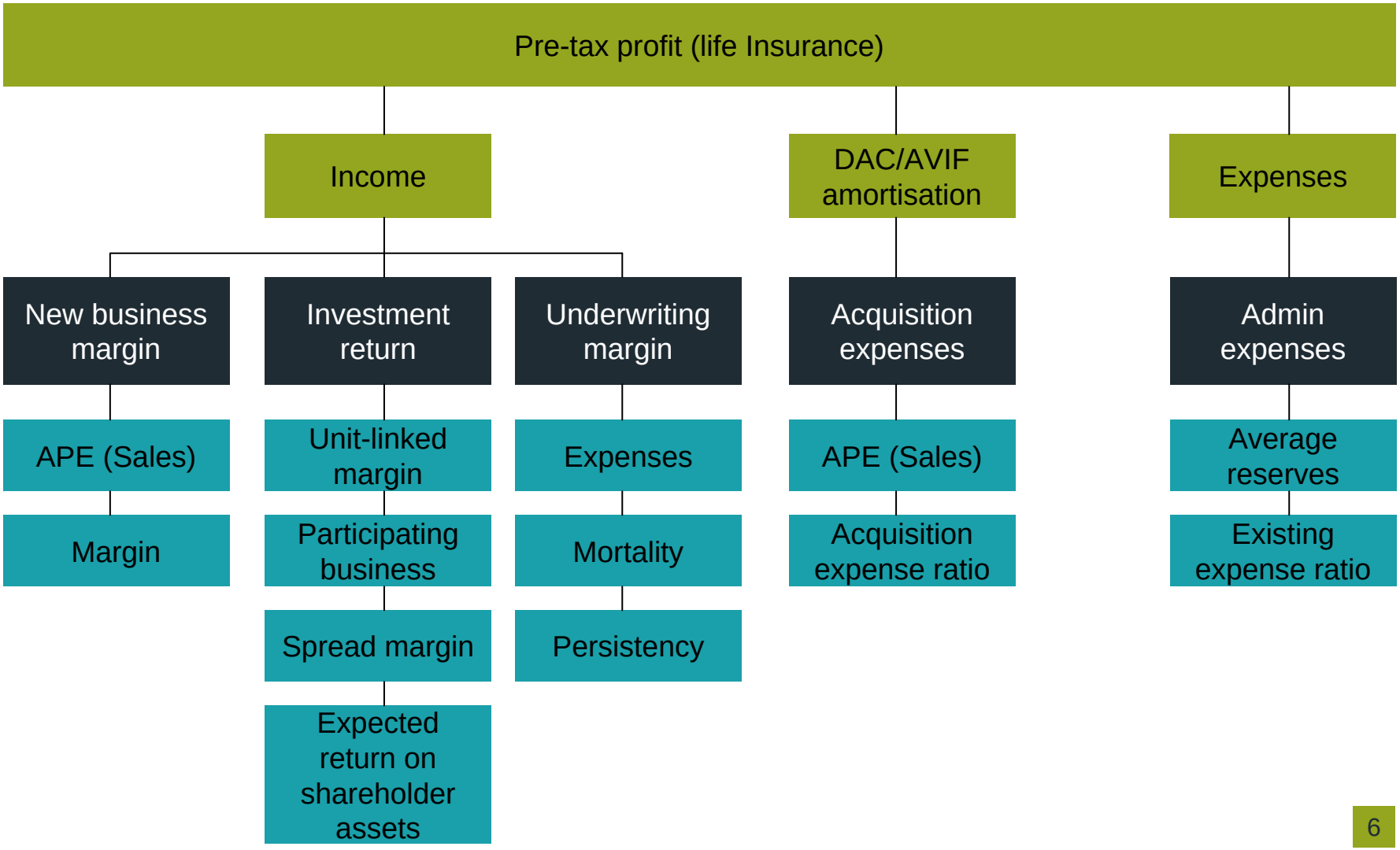
Key Credit Factors – Qualitative

- Sovereign and country-related constraints
- Industry profile and operating environment
- Market position and size/scale
- Ownership
- Corporate governance and management

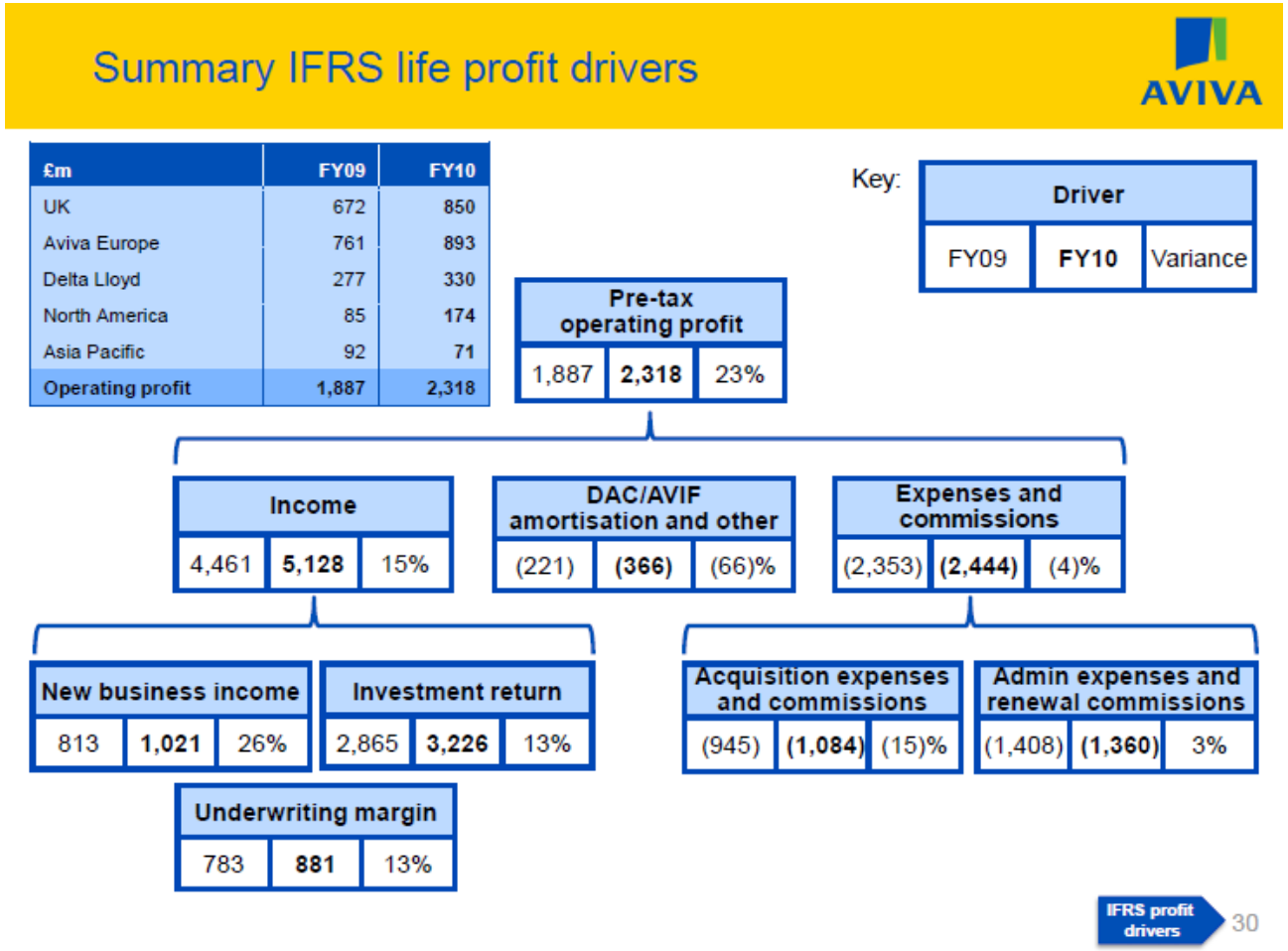
Key Credit Factors

Financial profile	Sovereign-related constraints	Industry profile	Market position	Ownership and governance
Profitability	Country ceiling	Competitive landscape	Underwriting expertise	Ownership
Investments and liquidity	Transfer and convertibility risks	Pricing trends	Distribution capabilities	Corporate governance
Loss reserve adequacy	Overseas assets	Competitive advantage	Business mix	Management quality
Reinsurance utilisation	Foreign strategic partnerships	Barriers to entry	Market share	Organisational structure
Catastrophe risk	Creditworthiness of government	Bargaining power	Operational scale	Group synergies
Capital adequacy		Tail of losses	Expense efficiencies	Parental support
Financial flexibility		Regulatory environment	Brand recognition	Strength of subsidiaries
Peer analysis		Accounting framework	IT capabilities	Financial projections

Insurers are Already Trying to Help Investors Understand the Drivers of Profitability



Example: Aviva



Source: Aviva, “Investor presentation June 2011”

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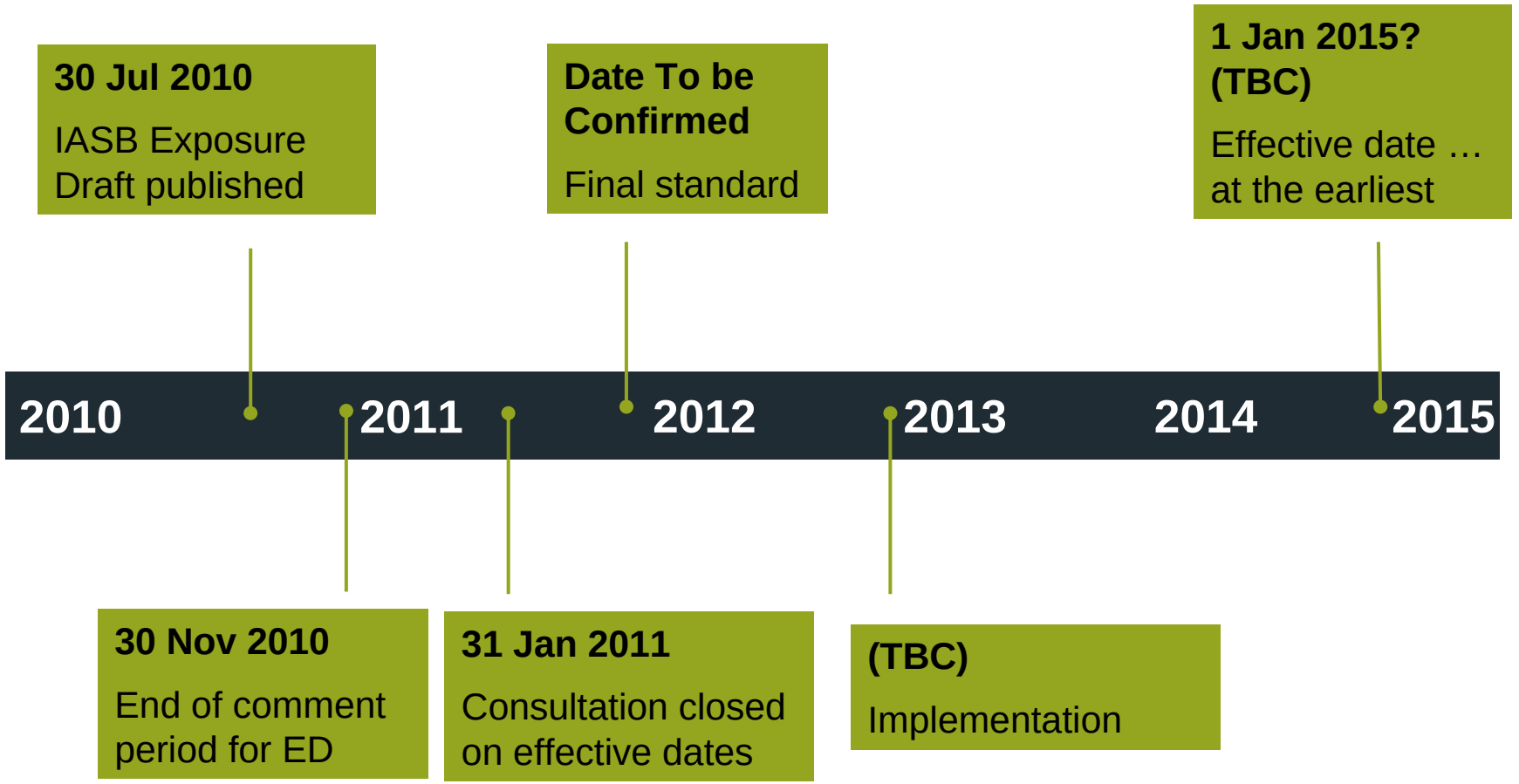
IASB Insurance Project History

1997: Launch

July 2010: IASB Exposure Draft ED/2010/8

Sept 2010: FASB Discussion Paper

IFRS 4 Phase II Timeline



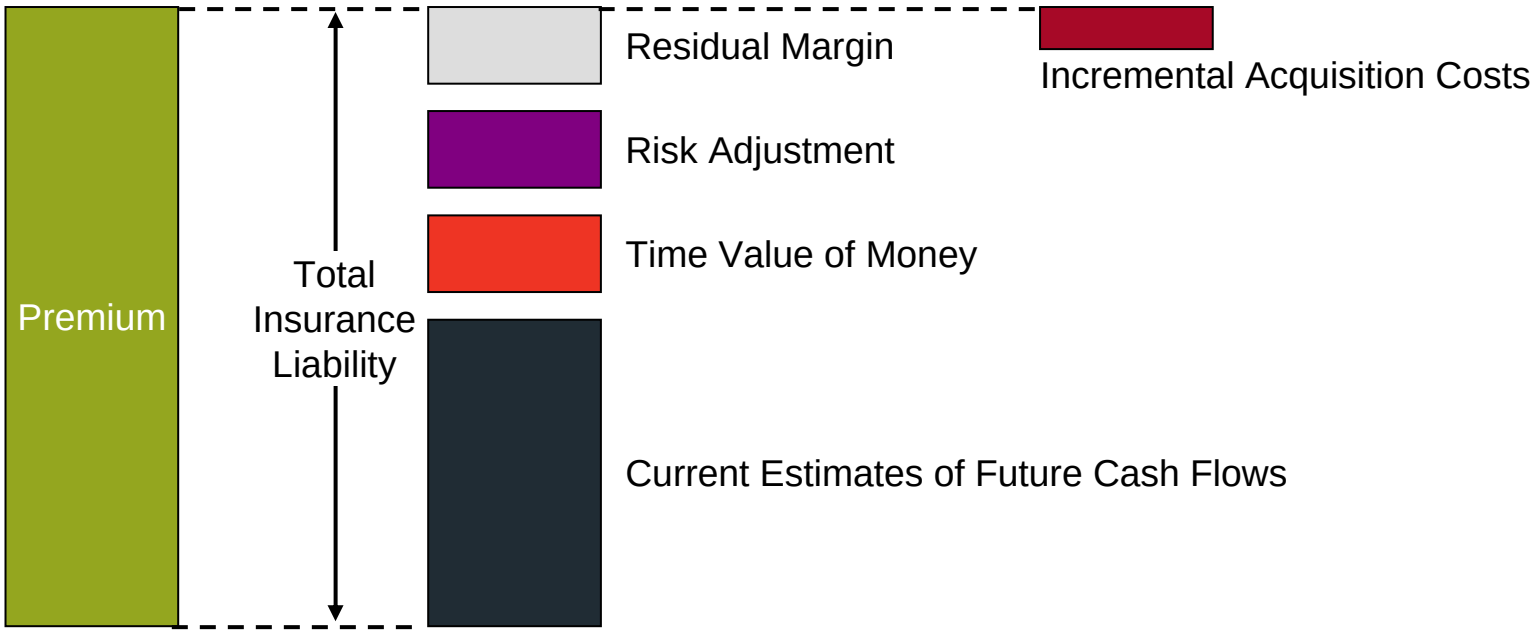
Exposure Draft: Objective

- Comprehensive Framework for insurance contracts
- Eliminate accounting mismatches – asset valuation vs. liability valuation
- Enhance comparability across entities, geographies, markets
- More understandable and relevant information for users
- Provide clear insight into economics of insurance contracts

→ **Reduce cost of capital for insurers….?**

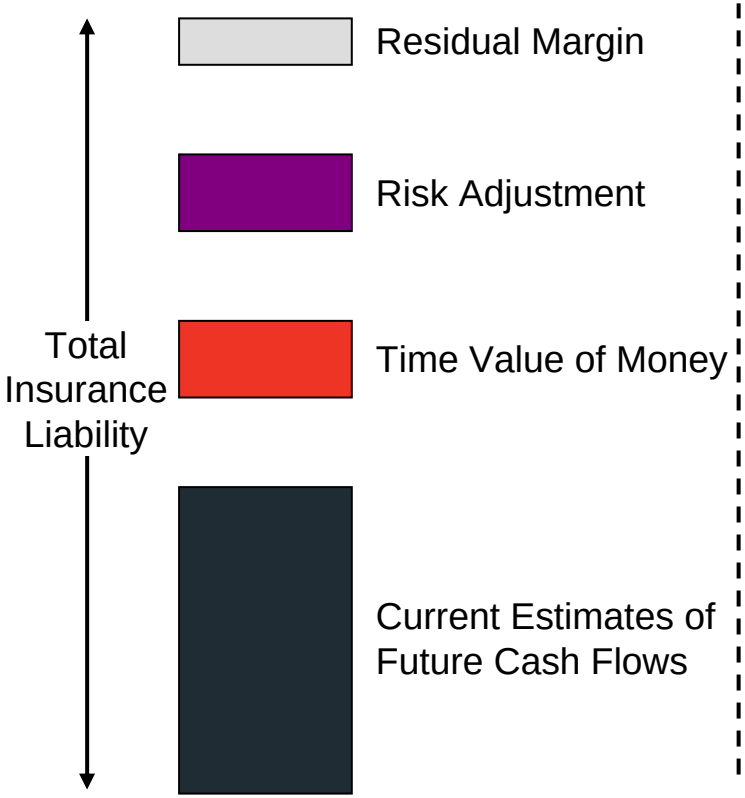
… ambitious aspiration!

Measurement Model – Building Blocks Approach



Source: IASB, Fitch

Measurement Model – Building Blocks Approach



IASB's Tentative Decisions – High Level

- •No gains at inception
- •Adjust prospectively for changes in estimates of cashflows

- •Include independently measured and updated risk adjustment

- •Adjust for time value of money using rate that reflects characteristics of liability

- •Expected value considering all relevant information
- •Includes all costs directly attributable to contract activity

Source: IASB, Fitch

Building Blocks – Cash Flows

Current estimates of future cash flows

- Fulfilment value approach (vs. current exit value, etc.)
- Premiums, claims, benefits and expenses
- Estimated using up-to-date information (vs. “locked-in” estimate)
- Probability-weighted averages
- Incremental acquisition costs included in cash flows arising from contract

Building Blocks – Discounting

Time value of money - discounting

- Current, risk-free discount rate, adjusted for liquidity
- Reflect characteristics of liability, rather than assets held

Building Blocks – Risk Adjustment

- Assessment of uncertainty about amount of future cash flows
  - At portfolio level
- Amount would pay on top of expected value to be relieved of the risk
- Akin to “risk margin” in Solvency II
- Re-measured at the end of each reporting period

Building Blocks – Residual Margin

- Balancing item – to prevent recognition of a gain at inception
- Contract profit – reported over the life of the contract
- Residual margin cannot be negative…
- …any loss at inception must be recognised

- US is considering a different approach: FASB is proposing a single “composite margin”, rather than risk adjustment and residual margin separately

Interaction with IFRS 9

IASB project	Applies to:
Insurance contracts project (IFRS4)	Insurance contracts Most investment contracts with DPF
Financial instruments project (IFRS9)	Financial assets Investment contracts without DPF Some investment contracts with DPF

- Proposals allow re-designation of assets, on adoption of new IFRS 4, to avoid any accounting mismatch

Developments since Exposure Draft (1)

ED Proposal	IASB Tentative View	Comments
Fulfilment cashflows	Guidance: not all scenarios need to be identified and quantified	
Acquisition costs - Include those incremental at contract level	Include all direct costs incurred in originating a portfolio	Wider definition of cashflows, fewer indirect costs that go straight to P&L
Recognition point - When insurer is bound or first exposed to risk from contract.	Recognise when coverage period begins, onerous test before that	Changed due to data limitations. Concern about changes to discount rates
Contract boundary	Guidance: can be assessed at portfolio level in some cases	Important for health insurers but possible unintended consequences

Developments since Exposure Draft (2)

ED Proposal	IASB Tentative View	Comments
Time value of money -Discount rate Reflects characteristics of insurance contract liability	Guidance: top-down and bottom-up both acceptable Remove factors not relevant to liability	Due to the presence of residuals, more flexibility helps companies.
Risk adjustment "The maximum amount the insurer would rationally pay to be relieved of the risk…"	"The compensation the insurer requires to bear the risk that the ultimate cash flows exceed those expected"	"Maximum" amount was unclear, certain confidence level ?
Residual margin Residual margin locked in at Inception	Adjust residual margin prospectively for changes in estimates of cashflows (unlocking) Do not unlock for risk adjustment	If residual margin is locked in, changes in assumptions affect P&L immediately Unlocked residual margin, changes are spread over time

Developments since Exposure Draft (3)

ED Proposal	IASB Tentative View	Comments
Insurer should use only three permitted techniques for estimating risk adjustments - Confidence level, conditional tail expectation and cost of capital	Decided not to limit the available techniques for determining the risk adjustments	ED proposal viewed as inconsistent with principles based approach Precluded the use of new risk approaches
No requirement to show yield curve	Required to disclose the yield curve used to aid comparability	Important change to aid comparability
Disclose a maturity analysis that shows the remaining contractual maturities or estimated timing of the net cash outflows	The option to disclose the maturity analysis based on remaining contractual maturities was removed	Increases consistency between companies and so aids comparability.

Key Differences between FASB and IASB

Topic	IASB	FASB
Acquisition costs	Include in fulfilment cashflows all direct costs the insurer will incur in acquiring portfolio	Additionally limit the costs to those related to successful acquisition efforts
Risk adjustment	Include an explicit adjustment for risk Re-measure the adjustment in each reporting period	Use a single margin approach (composite margin) Allocate over the settlement period
Residual margin	Include a residual margin. Allocate over the coverage period	Do not re-measure or recalibrate the single margin

PLUS: IFRS 9 and the Treatment of Assets

Still to be Decided

- Presentation – whether to make greater use of other comprehensive income (OCI)
- Transition arrangements & Effective Date
- When discounting on non-life contracts may be deemed immaterial
- Ways to separate credit spread volatility on assets
- Extent to which the risk adjustment should reflect diversification
- Contract Boundaries – any unintended consequences?
- Accounting for reinsurance by cedant

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Key Issues

Volatility and discount rates

- Concerns about volatility of reported profit
- Particular issue for long-duration contracts
- Interaction with IFRS 9
- Broad agreement that discount rate should reflect the characteristics of the liability

Volatility

- Important distinction between accounting and economic volatility

Sources of Volatility

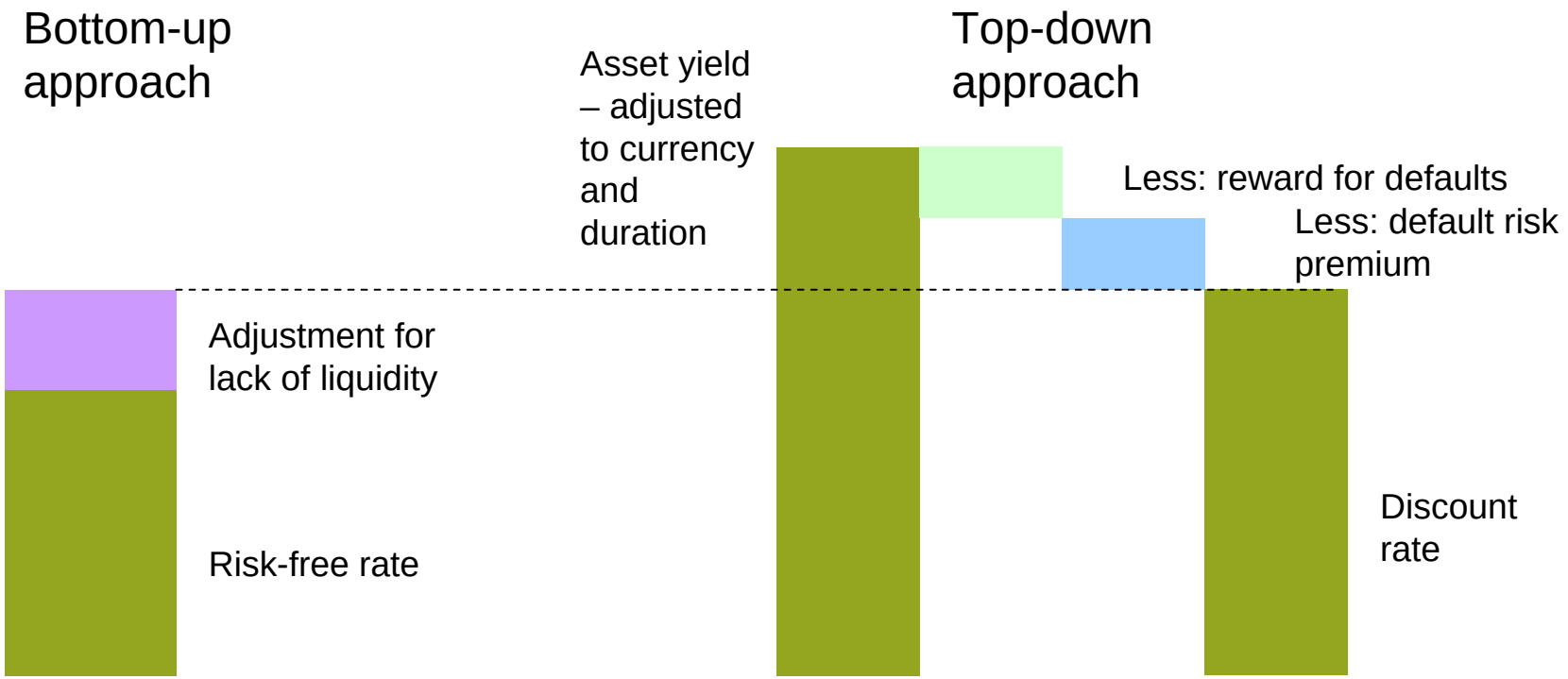
- Mismatches between assets and liabilities (e.g. duration, currency, convexity)
- Short-term movements may reverse
- May be an accounting mismatch if cashflows depend on statutory surplus
- Limited unbundling (more unbundling would allow more assets and liabilities at amortised cost)

Proposals Considered to Reduce Impact of Volatility

- Clarification that insurers can present a subtotal that does not include changes in market value variables
- Allow more unbundling to permit more assets to be measured at amortised cost
- Top-down approach to determine discount rates permitted
- Unlocking the residual margin for changes in estimated cashflows
- Boards considering whether greater use should be made of “other comprehensive income”

Calculation of the Discount Rate

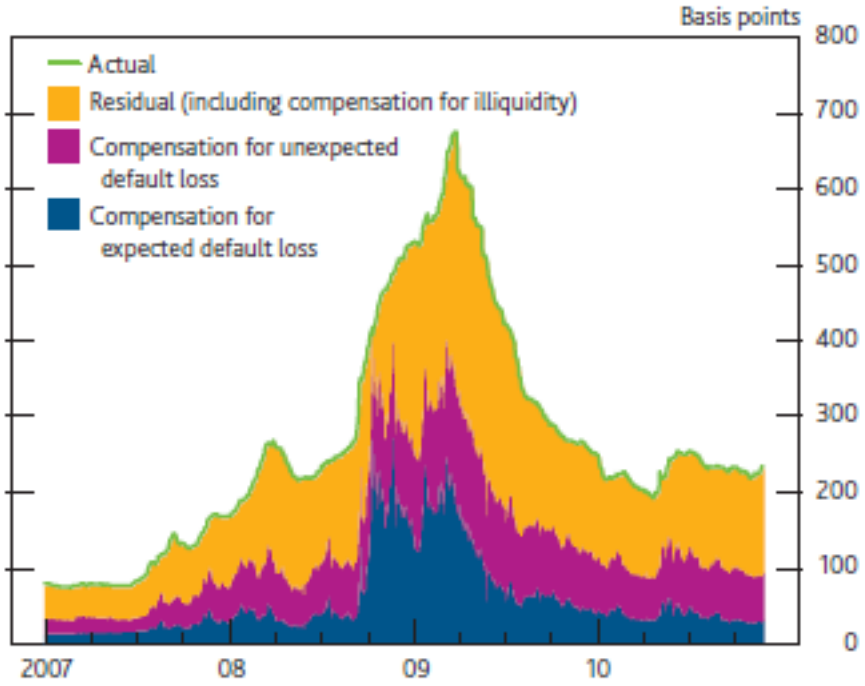
- Objective is to adjust the future cashflows for the time value of money and to reflect the characteristics of the insurance contract liability
- Top-down or bottom-up approach acceptable for determination of discount rates
- Discount rate is "unlocked" (changes period to period)



Source: Ernst & Young

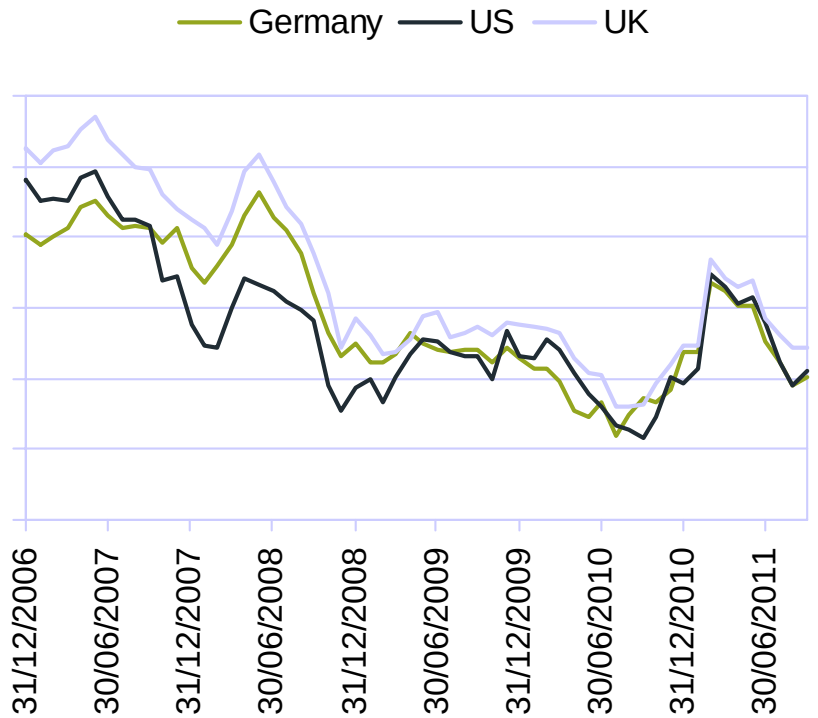
Discount Rates

Chart 5.15 Decomposition of sterling investment-grade corporate bond spreads[(a)(b)]



Sources: Bank of America Merrill Lynch, Bloomberg, Thomson Reuters Datastream and Bank calculations.

"Risk Free Rate" - 10 Year Yield on Government Bonds



Source: Bloomberg

Source: Bank of England, "Financial Stability Report", December 2010

Implications of Discounting

Scenarios	Value of Investment Assets	Value of Policyholder Liabilities	Overall Impact on Profit
Increase in risk free rate	Down	Down	Neutral if matched
Increase in liquidity premium	Down	Down	Neutral if matched
Increase in expected defaults due to recession	Down	Unchanged	Down
Increase in default risk premium	Down	Unchanged	Down

Use of top-down or bottom-up approach provides flexibility (in practice, the yield cannot be decomposed perfectly and residuals exist)

Transition

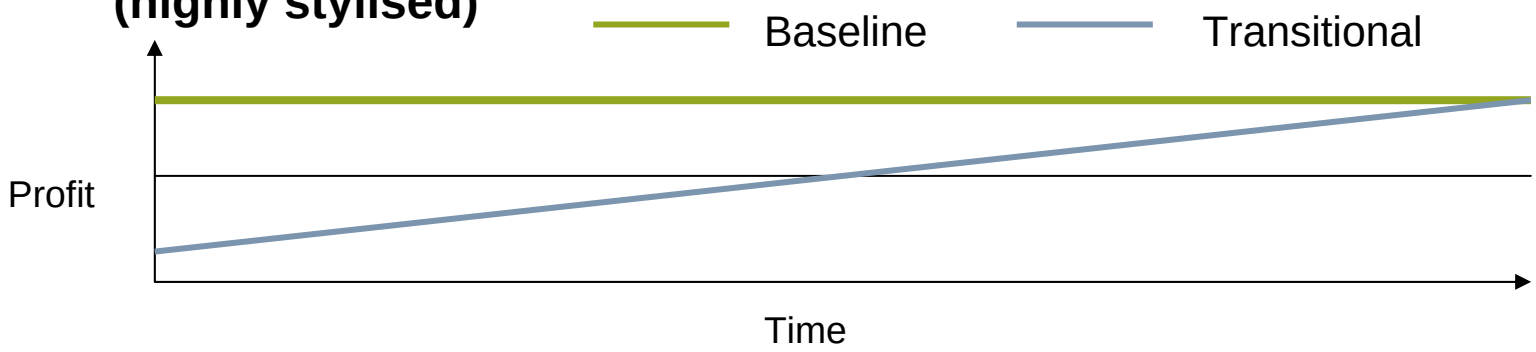
Exposure draft suggested:

- *A) “measure each portfolio of insurance contracts at the present value of the fulfilment cash flows”*
- *B) “derecognise any existing balances of deferred acquisition costs”*
- *C) “derecognise any intangible assets arising from insurance contracts assumed in previously recognised business combinations”*

Transitional Arrangements

- “Whole industry portrayed as start-up businesses”
- Profit emergence curtailed as no residual margin recognised on transition
- Profitability emerges only from the release of risk margin and investment income in excess of discount unwind
- Very likely to change

Possible reported profitability of a life company in transition (highly stylised)



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Sector Credit Factors

Ratings Range Based on Industry Profile/Operating Environment

	IFS:	AAA	AA	A	BBB	<BBB
	Debt:	AA	A	BBB	BB	<BB
Life/Annuity		◄	■	■	►	

Ratings Range Based on Ownership Form

	IFS:	AAA	AA	A	BBB	<BBB
	Debt:	AA	A	BBB	BB	<BB
Stock			◄	■	►	
Mutual		◄	■	■	►	

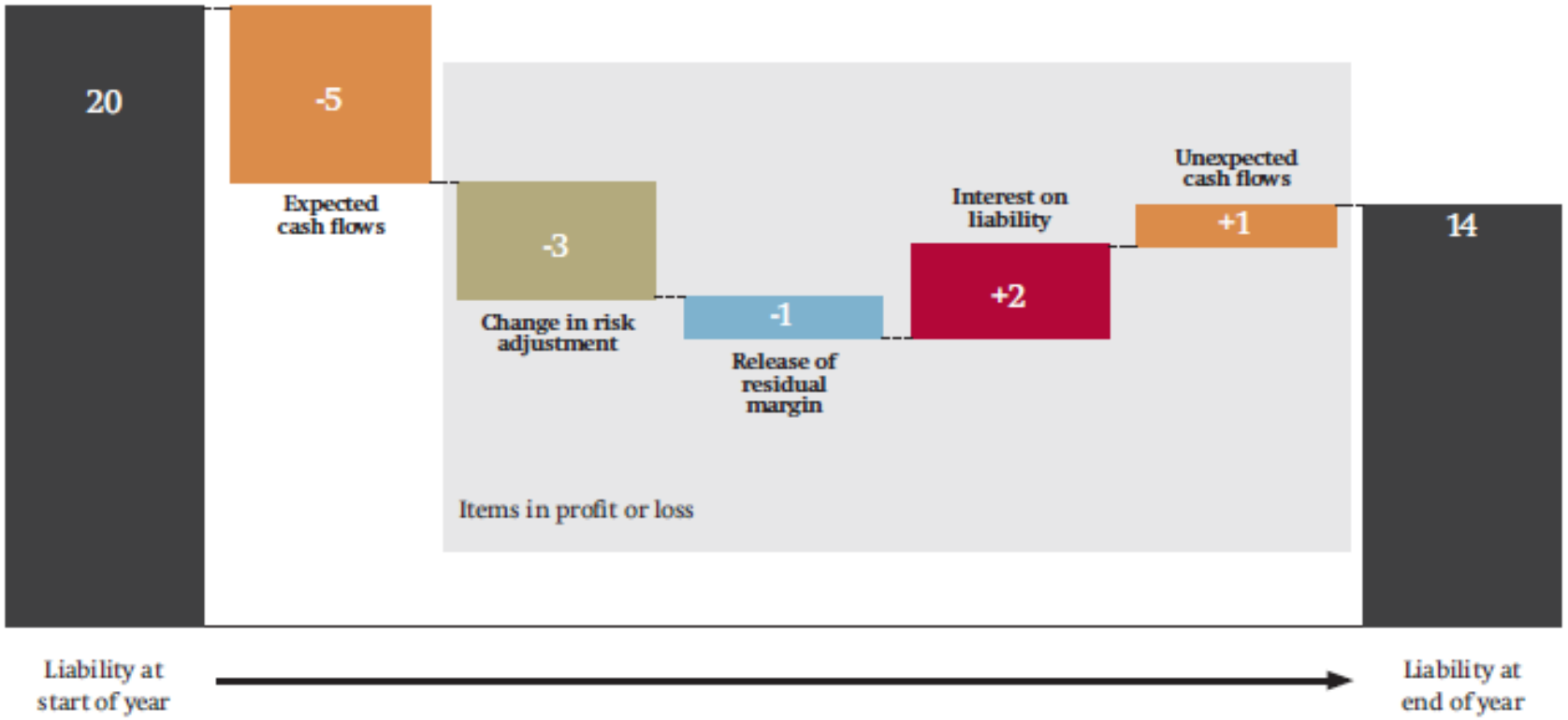
Ratings Range Based on Market Position and Size/Scale

	IFS:	AAA	AA	A	BBB	<BBB
	Debt:	AA	A	BBB	BB	<BB
Major Positions and Scale		◄	■	►		
Modest Positions and Scale			◄	■	►	
Modest Positions and Scale				◄	■	►

Ratings Range Based on Risk Management, Corporate Governance or Financial Flexibility

	IFS:	AAA	AA	A	BBB	<BBB
	Debt:	AA	A	BBB	BB	<BB
Effective to Adequate		◄	■	■	►	
Generally Effective, but Some Weakness Noted			◄	■	■	►
Weak/Ineffective/Inadequate						■

Margin-based Performance Presentation Follows from Measurement Model



Presentation – Income Statement

		Short-duration contracts	Long-duration contracts
Release of risk adjustment			169.5
Release of residual margin			82.8
Underwriting margin long-duration contracts			252.3
New business losses (onerous contracts)			-56.6
Non-incremental acquisition costs		-113.4	-82.8
Experience adjustments and change in discount rates	2	-9.8	962.5
Interest accretion		-60.4	-1,239.4
Movements in unit-linked liabilities			-902.6
Total other expenses		-183.6	-1,318.9
Investment income	1	280.1	947.6
Investment income attributable to unit-linked policyholders			902.6
Total investment income		280.1	1,850.2
Profit before tax		264.6	783.6
Income tax expense		67.5	199.8
Profit for the year		197.1	583.8

Source: Ernst and Young

Reconciliation of Contract Balances

	Total insurance liabilities* para 86(a)	Risk adjustment para 86(b)	Residual margin para 86(c)
Carrying amount beginning of period	52,281.3	2,419.2	1,022.6
Changes in risk adjustment and residual margin			
New contracts recognised	56.6	177.9	71.3
Cash flows period:			
Premiums received	6,392.4		
Claims and benefits paid	-4,825.8		
Incremental acqusition cost**	-236.2		
Operating expenses incurred	-768.3		
Total cash flows	562.0	–	–
Results:			
Underwriting margins	-252.3	-169.5	-82.8
Experience results	-50.1		
Operating assumption changes	38.8		
Change in discount rates	-951.2	-25.9	
Interest accretion	1,239.4	51.7	43.6
Movements in unit-linked liabilities	902.6		
	927.2	-143.7	-39.2
Carrying amount end of period	53,827.1	2,453.4	1,054.8

Source: Ernst and Young

Examples of Ratios Considered (Life)

	AAA	AA	A	BBB
Capital				
Operating Leverage (Life) (x)	7	11	15	24
NAIC RBC (US, Life) (%)	450	375	270	200
MCCSR (Canada, Life) (%)	220	180	165	140
Solvency 1 Ratio (EU, Life) (%)	220	175	150	125
Investments				
Equities to Surplus / Equity (Life) (%)	12	27	45	60
Below Investment-Grade Bonds to Surplus/Equity (Life) (%)	20	40	55	70
Profitability				
Pre-tax Return on Assets (%)	1.4	1.1	0.9	0.4
Liquidity				
Liquid Assets to Policyholder Liabilities (Life) (%)	85	75	60	45
Leverage / Coverage				
Fixed Charge Coverage Ratio (x)	18	12	7	3
Adjusted Debt to Total Capital (%)	7	20	28	35

Examples of Ratios Considered (Non-Life)

	AAA	AA	A	BBB
Capital & Leverage				
Net Premiums Written to Equity (Non-Life) (x)	0.5	1.1	1.8	2.5
Net Leverage (Non-Life) (x)	2.0	3.5	5.0	7
Fixed Charge Coverage Ratio (x)	18	12	7	3
Adjusted Debt to Total Capital (%)	7	20	28	35
Investments & Reinsurance				
Risky Assets to Surplus / Equity (Non-Life) (%)	25	50	75	100
Reinsurance Recoverables to Surplus/Equity (Non-Life) (%)	25	45	65	100
Profitability				
Combined ratio (Non-Life) (%)	80	95	103	110
Operating Ratio (Non-Life) (%)	67	82	90	97
Liquidity				
Liquid Assets to Technical reserves (Non-Life) (%)	200	150	125	100
Reserves				
Long Term Average Reserve Development to Surplus/Equity (Non-Life) (%)	(5)	(2)	0	5

Future Relevant Financials and Ratios?

Examples	Comments	Questions
Underwriting		
Reported Profitability	Important to consider drivers – market movements on cashflows, other cashflow assumptions (e.g. mortality), valuation of cashflows.	Are sources of profitability sustainable?
Size and Trend of Residual Margin	Indication of Future Profitability and performance	Relevant time period for earning ?
Investment Income		
Investment income compared to unwind of discount	Largely driven by market movements but expected to be positive over time.	Comparison to peers and expectations
Risk		
Size and Trend of Risk Margin	Indication of trends in riskiness of products or product mix	Reasons for trends ?
Methodologies		
Disclosures aid comparisons between companies	Assess methods and Inputs used (e.g. discount rates) against peers	Aggressive Policies? Sensitivities ?

Segmental reporting - always very important to understand drivers of profitability / risk.

Disclosure

ED proposals included:

- Quantitative and qualitative information about
  - The amounts recognised from insurance contracts
  - Nature and extent of risks
- Sensitivity analysis as to market risk
- Methods and inputs used to develop measurements
- Unit-linked as one line on balance sheet

Additional tentative decisions:

- Require separate disclosure of the reason for, and effect of, changes to inputs and methods
- Require disclosure of the yield curve(s) used for non-participating contracts
- Require maturity analysis of cash outflows to be based on expected rather than contractual maturities
- More to be Finalised on Presentation and Disclosure

IFRS 4 Phase II Concerns

- Overall, benefits of change much greater than costs
- But comparability may be hampered by different methodologies
- Wide discretion in determination of discount rate
  - Helped by disclosure of yield curve for non-participating business
- Volume information is still important
- How robust are firms' contract boundary assumptions ?
- Disclosures are critical

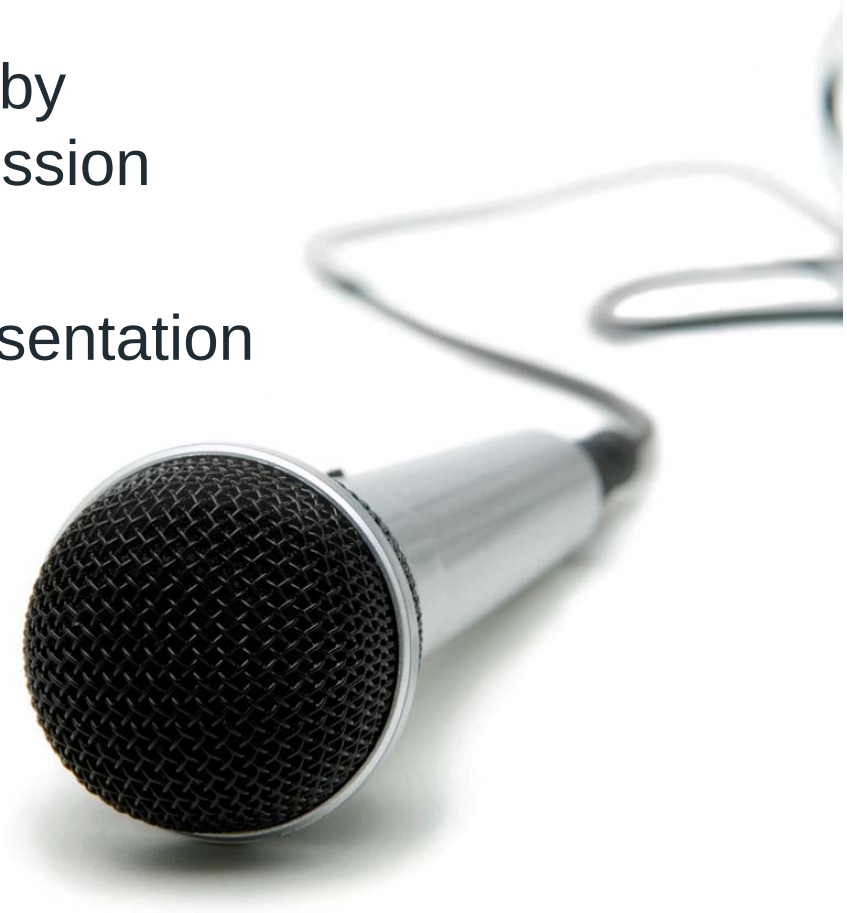
Summary

- A number of key issues are still open…
- …and implementation timetable is uncertain
- Over the medium term, expected to be beneficial for analysis…
- - Greater consistency and comparability than currently
- - Better transparency and disclosure of key drivers
- … but the devil is in the detail (and real world implementation!)
- Investor/analyst education will be key
- *“If you change the way is the game scored, you change the way the game is played” – Equity Analyst Comment*

Questions or Comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

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



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Appendix

Reinsurance Accounting for Cedants

	Status	Residual Margin	Treatment of Losses for Cedant	Treatment of Apparent Gains for Cedant	Conclusion
Approach A	Proposed in the Exposure Draft	Measured by reference to reinsurance premium paid	Included in the measurement of the reinsurance asset	Recognised in profit or loss	Day 1 gains possible. No Day 1 losses (Reduces residual margin)
Approach B	IASB tentatively decided on at the May 2011 board meeting.	Measured by reference to reinsurance premium paid	Included in the measurement of the reinsurance asset	Recognised as a reinsurance residual margin	No day 1 gains or losses (Offsets residual margin).
Approach C	Proposed by several respondents to the ED	Measured by reference to premium paid on underlying insurance contracts	Recognised in profit or loss	Recognised in profit or loss	Day 1 gains possible. Day 1 losses possible

In all cases, the expected PV of net cashflows and risk adjustment is based on underlying insurance contracts.

Source: IASB Staff Paper (8), “Insurance contracts: considering the different approaches for accounting for reinsurance assets”, 24 October 2011; Fitch

Disclosures

	Amount recognised on the balance sheet	Method used	Key inputs	Range (weighted avg.)
Product line 1	XXX	Method 1	Input X	X % – Y % (Z%)
			Input Y	A.X – B.X (C.X)
		Method 2	Input A	X % – Y % (Z%)
			Input B	A.X – B.X (C.X)
		Method 3	Input X	X % – Y % (Z%)
			Input L	A.X – B.X (C.X)
Product line 2	XXX	Method 1	Input X	X % – Y % (Z%)
			Input Y	A.X – B.X (C.X)
		Method 2	Input A	X % – Y % (Z%)
			Input B	A.X – B.X (C.X)
		Method 3	Input X	X % – Y % (Z%)
			Input L	A.X – B.X (C.X)
Total	XXX			

Source: IASB Staff Paper (7D), “Insurance contracts: reporting back on the disclosure decisions so far”, 24 October 2011

Sensitivity Analysis

Sensitivity analysis – insurance risk

	Effect on income		Effect on equity	
	20X1	20X2	20X1	20X2
Life insurance				
5% increase in mortality/morbidity	XXX	XXX	XXX	XXX
5% increase in longevity	XXX	XXX	XXX	XXX
10% increase in expenses	XXX	XXX	XXX	XXX
Non-life insurance				
5% increase in frequency	XXX	XXX	XXX	XXX
5% increase in severity	XXX	XXX	XXX	XXX
. . .				

Sensitivity analysis – market risk

	Effect on income		Effect on equity	
	20X1	20X2	20X1	20X2
Life insurance - 1% increase in interest rates	XXX	XXX	XXX	XXX
Non-life insurance - 1% increase in interest rates	XXX	XXX	XXX	XXX

Source: IASB Staff Paper (7D), “Insurance contracts: reporting back on the disclosure decisions so far”, 24 October 2011