IAIS
INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS

MAV Discounting

IAIS Stakeholder Meeting
17 January 2017, La Jolla, California

Two aspects to MAV discounting to resolve

1. Discounting – base yield curve
   i. Data to be used for Segment 1 of the yield curve – per currency (i.e. government bond or swaps)
   ii. Period of data to be used for Segment 1 – deep, liquid and transparent criteria
   iii. Length of segments of the base yield curve given different market realities for Segment 1 the observable component – fixed starting point of Segment 3 or fixed length of Segment 2 leading to variable starting point of Segment 3 (due to different lengths of Segment 1)
   iv. LTFR calculation – currently based on OECD projection of inflation and economic growth

2. Discounting – spread adjustment
   i. the approach to portfolio selection for the calculation of spreads;
   ii. the approach to liability bucketing;
   iii. the level of granularity allowed for in the calculation of the credit spread adjustment;
   iv. the approach to default allowance; and
   v. the segments of the base yield curve that should be affected by the application of the adjustment.

Discounting – spread adjustment

- Main issue to resolve – taking focus of IAIS work at the moment
- Critical issue to resolve – deals with volatility – equivalent issue to AOCI in GAAP+ valuation
- Significant focus in 2016 field testing – 6 options tested with valuation of the balance sheet on current market basis (as at end of 2015) and credit spread stress event basis to see how the different liability valuation methods addressed the issue of volatility
- Going forward - important to narrow down options for field testing (max three)

Background

- MAV discounting approach is **not** a market-consistent valuation (risk-free discounting) approach as is commonly understood
- Volatility is an integral part of the risk management of an insurance group– the adjustment to the base yield curve aims to remove artificial volatility (volatility that does not reflect the true nature of the activities of the insurer or its risk profile)
- This presentation refers to adjustments to the observable part of the base yield curve and we will not address the adjustment (if any) to the long-term forward rate
- Acknowledges that IAIGs can usually earn more that the risk-free rate on their asset portfolios
- Mitigating potentially excessive balance sheet volatility must be balanced against other prudential objectives

Key components of any adjustment to the base yield curve

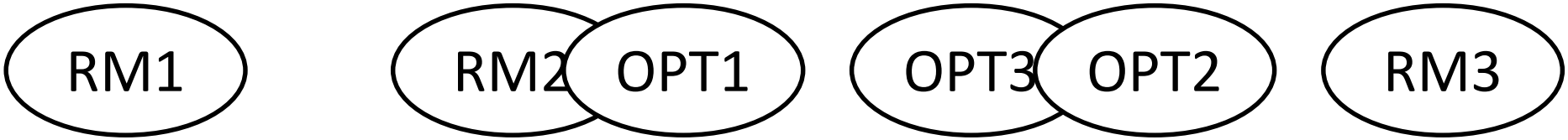
- Nature of the portfolio
  - What pool of assets should be the basis for determining the adjustment – a spectrum from a simple reference portfolio not connected to existing IAIG portfolios to the actual assets held by individual IAIGs
- Whether there is a need for liability bucketing and if so the nature of that liability bucketing
  - i.e. should there be a different approach to the adjustment depending on the nature of the liabilities
- What level of granularity should be allowed for
  - i.e. whether identification of specific pools of assets backing specific pools of liabilities should be recognised
  - Related to liability bucketing
- Methodology for the adjustment of spreads for default and other risks
  - Refers to deduction of a portion of the observed market credit spread that corresponds to the expected defaults and unexpected losses that may not be reflected in observed market spreads

Discounting - Spread Adjustment - Options tested

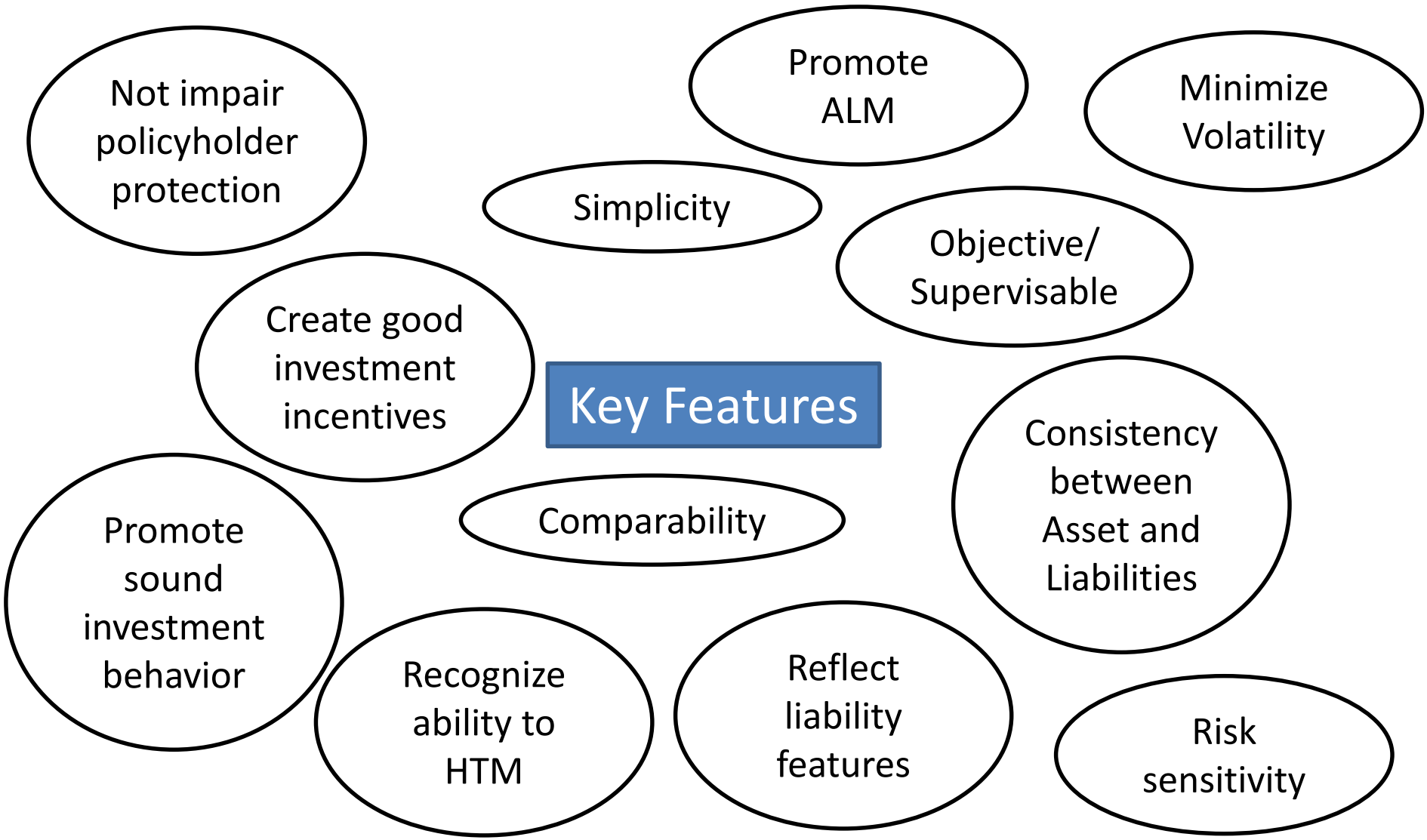
		Reference Methods			Options		
		Risk-free	2015 methodology	Asset earned rate	Option 1: currency-specific	Option 2: firm-specific	Option 3: Bucketing
Liability segmentation (buckets)		N/A	1	3	1	1	3
Portfolio Composition		N/A	Reference portfolio per jurisdiction	IAIG's own portfolio – own view of earning rate	Representative portfolio per currency	Weighted average based on firm's assets	Weighted average based on firm's assets
Default Deduction		N/A	Included in 60% deduction of spread	Risk Correction	Risk Correction	Risk Correction	Risk Correction
Liquidity buckets	1	0%	100%	80%	100%	100%	80%
	2			60%			60%
	3			40%			40%
		RM1	RM2	RM3	Opt1	Opt2	Opt3

Two extremes can be identified

Range of RM/OPT tested are constructions which reflect different points along the space in between the two extremes



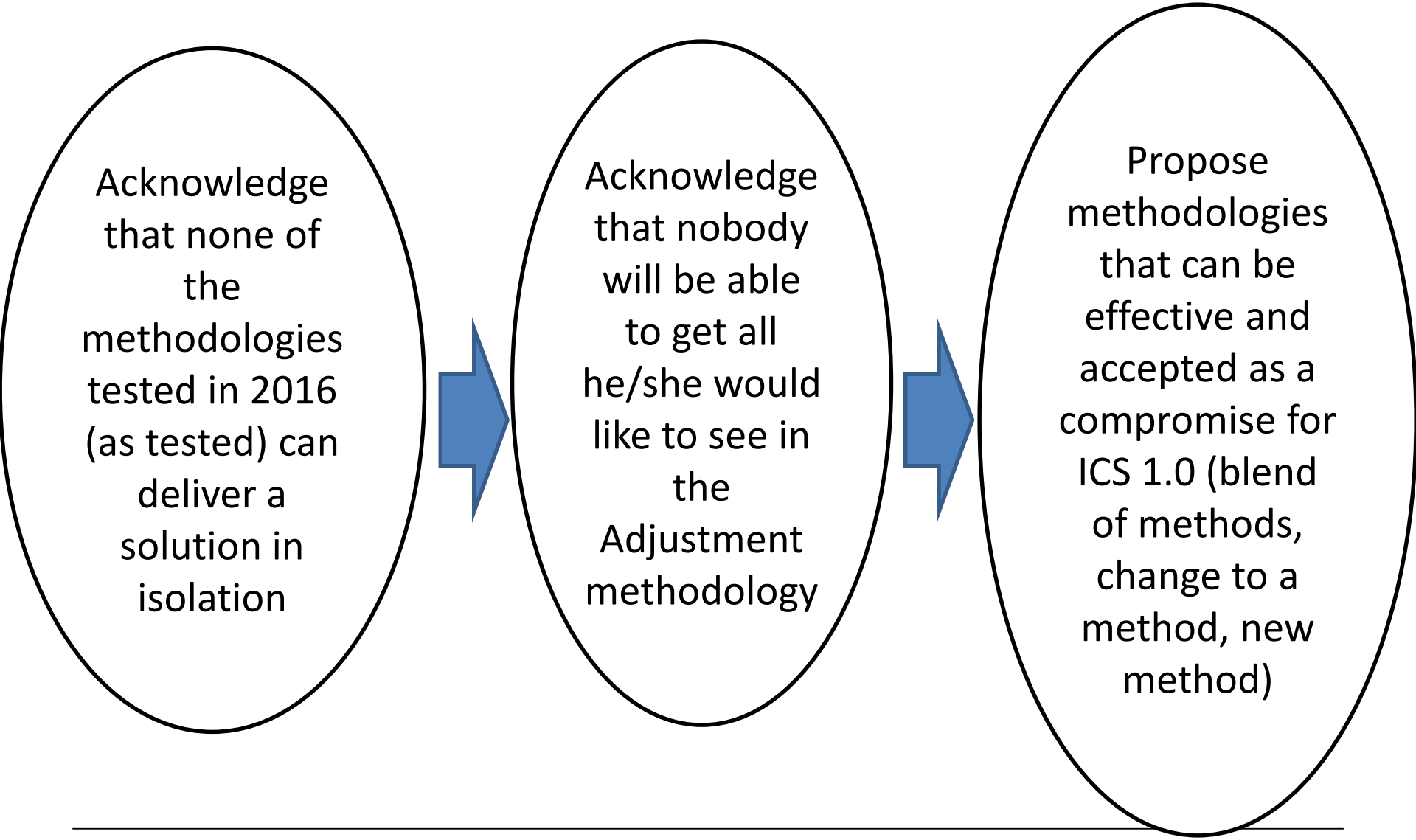
Possible list of Key Features



What have we learned so far?

- Data and field testing are important, but data alone does not provide all elements to resolve this issue
  - It reflects a point-in-time assessment
  - Overall, the methodologies behave as they were designed to perform
  - The features of most methodologies tested can be tweaked to provide results that address issues (e.g. the application ratio)
- The key features alone do not allow for a decision to be made
  - Extreme methods deliver well on the preferences of those at the extremes, but fail completely on the preferences of those at the opposite extreme
  - Intermediate methods are criticized for not delivering well enough on the preferences of those at each of the extremes

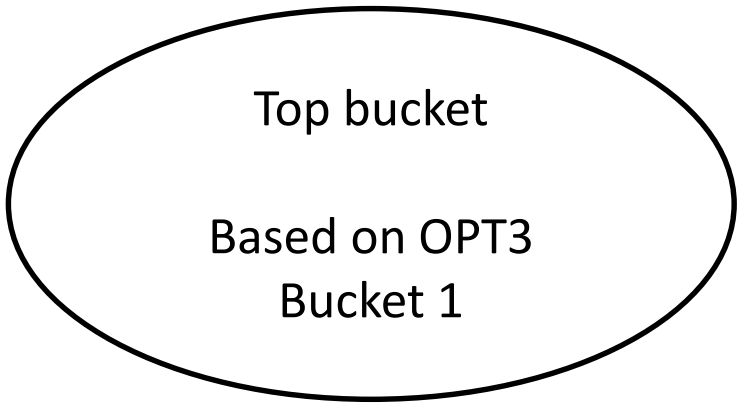
How can we move forward?



OPTIONS TO BE CONSIDERED BY FSTC AFTER STAKEHOLDER MEETING

Blend of Options

How could such proposal look?



- "Optional" bucket for Bucket 1 less liquid liabilities
- 80% application ratio
- Based on assets specifically backing bucket 1 liabilities
- Criteria for the management of assets backing top bucket liabilities

General bucket

Based on OPT1

- "Catch all" bucket
- Reduced application ratio e.g. 65%
- Asymmetric market (credit spread) shocks among jurisdictions sharing the same currency

Overarching issues applying to both buckets

- Risk corrections – some risks not related to defaults may not be taken into account
- Liabilities backed by assets denominated in a different currency

OPTIONS TO BE CONSIDERED BY FSTC AFTER STAKEHOLDER MEETING

Own Assets with Guard Rails

How could such proposal look?

- Methodology proposed by the industry to replace both GAAP+ and MAV
- Suggested that it brings together the best elements of both frameworks
- Key feature of which is that the liability discount rate is derived from the firm's own assets with some prudential guard rails:
  - Capping spread on lower quality assets to BBB spread
  - IAIS prescribed adjustments for default risk
  - IAIS reinvestment yield assumptions for assets whose duration is shorter than liabilities
  - Spread earned by equities and alternative investments is included
  - No liability bucketing and 100% application ratio
  - Granularity of the spread calculation is based on asset hypothecation at a granularity to be chosen by the IAIG

How does it compare to Reference Method 3?

RM3

New elements added

- Spread earned by equities and alternative investments is included (eligibility of assets is modified)
- IAIS reinvestment assumptions, including a spread

Elements maintained

- Spreads based on own assets of firm
- Cap of spreads at BBB level (Guard Rails)
- IAIS prescribed risk corrections

Elements removed/replaced

- Bucketing is replaced by 100% application ratio (differentiation of application ratios is referred as a possible tool to mitigate supervisory concerns regarding ability to earn the spreads)
- Calculation of spread by group of assets (L/NL) is replaced by asset hypothecation at a granularity to be chosen by the IAIG

OPTIONS TO BE CONSIDERED BY FSTC AFTER STAKEHOLDER MEETING

AA plus

How could such proposal look?

- Weighted average of the Sovereign, default-adjusted AAA and default-adjusted AA spreads for IAIGs in each currency

- Essentially a representative portfolio for each currency with earnings on assets rated lower than AA capped at the AA rate including non-fixed income assets, such as equities

How could such proposal look?

- Main advantages indicated are:
  - convergence between the MAV and GAAP+ valuation methodologies (provided the FASB proposal goes forward)
  - promoting consistent valuation principles for assets and liabilities, and
  - comparability of outcomes across jurisdictions

Summary comparison of options considered

	Blended Option Top Bucket	**Blended Option General Bucket**	**AA Plus**	**OAG**
Liability Segmentation	2		1	1 (but possibly more)
Weighting in asset portfolio	IAIG determined allocation in Sovereign, AAA, AA, A, BBB and below	IAIS determined Representative Portfolio per currency	IAIS determined Representative portfolio of Sovereign, AAA and AA	IAIG determined portfolio with unlimited granularity
Spread determined by	IAIS with cap at BBB spread	IAIS with cap at BBB spread	IAIS with cap at AA spread	IAIG with no cap
Asset Eligibility	Debt instruments	Debt instruments	Debt instruments	All Assets
Default Deduction	IAIS Risk Correction	IAIS Risk Correction	IAIS Risk Correction	IAIS Risk Correction
Application Ratio	80%	65%	100%	100%