IAIS

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS

# IAIS Capital-related Stakeholder Meeting

IAIS Capital Development Working Group and Field Testing Working Group

- New York, 6 May 2015
- Tokyo, 12 May 2015

# Agenda

1. Welcome
2. 2015 Field Testing
3. General discussion about ICS covering first 4 sections of ICS consultation document
4. Valuations
   A. Enhancements to Market-Adjusted Valuation Approach
   B. GAAP with Adjustments Valuation Approach
5. ICS capital requirement: an example of the standard method
6. Other methods of calculating ICS capital requirement
7. Capital resources
8. Next steps, wrap up, feedback and future capital-related stakeholder meetings

# 1 Welcome – 9:00-9:15

# ICS - Ultimate Goal

The ultimate goal of a single ICS will include a common methodology by which one ICS achieves comparable, i.e. substantially the same, outcomes across jurisdictions. Ongoing work is intended to lead to improved convergence over time on the key elements of the ICS towards the ultimate goal. Not prejudging the substance, the key elements include valuation, capital resources and capital requirements.

# Structure of stakeholder meeting

- IAIS representatives briefly introduce each topic
- Speakers who have requested to speak on a topic will be asked to speak
- Floor opened for further comments and discussion

# Introductory remarks

- Now about 3 months since comments received on ICS CD
- Non-confidential comments published on IAIS website
- In addition – significant number of confidential comments
- For this stakeholder meeting, the IAIS will provide:
  - The latest developments on ICS considerations and work timing
  - A non-final summary of issues raised for purposes of discussion, focusing on how they've been addressed in development of field testing. IAIS will publish resolutions to comments about late-June;
  - An understanding of the design of the 2015 field testing package
- ICS CD is a product of all jurisdictions represented on CDWG/FTWG to develop, review and challenge the material
- Parts produced by different teams – 17 teams set up (individual contributions of some parts as well)

# ICS Consultation document overview

- First step in a multi-year process to develop and finalise the ICS
- Very open consultation document – 169 questions
- ICS is a group-wide, consolidated insurance capital standard applicable to IAIGs
- The ICS is part of ComFrame, a comprehensive framework addressing qualitative as well as quantitative requirements for IAIGs
- Not intended as a legal entity requirement
- Once finalised and agreed, the ICS will be a measure of capital adequacy for IAIGs
- 10 ICS Principles – feedback on some of these summarised

# Speakers today

- IAIS Members speaking today have either led a team which has developed material on a particular subject or made a significant contribution to that team
- **IAIS Members are speaking on behalf of the IAIS not their own supervisory authority**
- Nature of the ICS is an agreement among supervisors
  - the way each subject is addressed would not be the way that the IAIS Member or their supervisory authority would necessarily have addressed that subject on their own
- When making notes please do not write Mr(s) X from ‘A country’ said ‘abc’ – much better that the ‘IAIS representative’ said ‘abc’
- If contributing to media articles after this meeting please do the same thing

# Analysis of comments

- Summary of responses on consultation only interim – focused on answers to questions rather than general comments on sections
- Please consider all quantitative analysis of the comments as purely indicative, as they result from a personal interpretation of each comment
- Quantitative analysis of comments is interesting but need to consider who the responses are from:
  - Trade associations represent many views
  - EIOPA and NAIC represent views of number of supervisors
- Further analysis and cross-checking is required
- Other analysis is similarly on the basis of interpretation

# 2. 2015 Field Testing 9:15 – 9:30

# Timing of 2015 field testing

- Launch date 30 April 2015 (additional Workshop on 5 May in NY and 11 May in Tokyo)
- Field testing will be divided into two components:
  - Part 1 – to be submitted by 30 June 2015
  - Part 2 – to be submitted by 14 August 2015
- Part 1 package to be considered final
- Part 2 package pilot testing – final revision to be provided by end of May

# Part 1 – By 30 June 2015

- By 30 June – components necessary for calculation of BCR and HLA -
  - Existing baseline jurisdictional capital requirements (for insurance and non-insurance segments of volunteers)
  - Market-adjusted valuation balance sheet
  - BCR specific data
  - Capital resources – all base data leading to completed BCR capital resources summary
  - Copy of G-SII designation data (to avoid confidentiality problems for HLA calculation if needed)
  - BCR summary worksheet – BCR qualifying capital resources/BCR capital requirement
  - Part 1 questionnaire

# Part 2 – By 14 August 2015

- GAAP with adjustments valuation and reconciliation of GAAP→GAAP with adjustments→MAV (using data from June submission)
- ICS risk charges
- ICS Capital resources – using base data for June submission + options for comparable MOCE
- ICS Summary worksheet – ICS qualifying capital resources/ICS capital requirement (based on example of standard method)
- Part 2 Questionnaire

# Publication of field testing package

- Volunteers will receive template, technical specifications and yield curves spreadsheet on 30 April
- The intention is to publish the 2015 field testing package to be available to all stakeholders not just volunteers
- To be published in June 2015

# Design of ICS

- A major aim of 2015 Quantitative Field Testing is to test design options for the ICS
- Design options have been reduced from the ICS CD either through consideration of feedback from the consultation, discussion with volunteers or for reasons of pragmatism to reduce the data collection
- An example of a reduction of design options due to feedback from consultation was that there was little support in the ICS CD comments for considering interest rate risk from a duration perspective so a simple stress approach has been chosen
- An example of a reduction of design options due to pragmatism is to not to quantitatively test the 90% Tail-VAR calibration
- **It is important to note that if a design option is not included in field testing for 2015 that does not definitively close it off from future consideration and vice versa**

# Calibrations of ICS capital charges for 2015

- Focus of exercise on design
- Calibration of ICS capital charges for 2015 is at notional 99.5% VAR
- Calibrations are **INITIAL AND TENTATIVE** and subject to change and refinement
- Providing calibration for stresses included in example standard method is vital – Volunteers cannot complete request without calibration
- Providing calibration for factors where factor-based calculations are used is also necessary to understand overall initial calibration
- Providing calibration enable the IAIS to obtain feedback on the appropriateness of this initial calibration
- All ICS capital charges need to be calibrated so that they may be aggregated using correlation matrix to understand impact of diversification
- Some calibrations are based on IAIS analysis – equity risk, currency risk, interest rate risk
- Remainder of calibrations – inference from existing jurisdictional capital requirements, analysis of jurisdictional data, professional/supervisory judgment
- Need to seek views of volunteers on calibration, need to continue working on calibration after the analysis of 2015 field testing data

# Testing different calibrations

- The quantitative field testing template will only include calibrations aiming to be 99.5% VAR calibrations
- The questionnaire that accompanies the quantitative field testing template will explore the differences if a 90% Tail-VAR calibration was used

# 3 General discussion about ICS covering first 4 sections of ICS consultation document – 9:30 – 12:00

# Question 1 - Principles

Principle 1

**ICS Principle 1 – The ICS is a consolidated group-wide standard with a globally comparable risk-based measure of capital adequacy for IAIGs and G-SIIs.**

The standard incorporates consistent valuation principles for assets and liabilities, a definition of qualifying capital resources and a risk-based capital requirement. The amount of capital required to be held and the definition of capital resources are based on the characteristics of risks held by the IAIG irrespective of the location of its headquarters.

# Question 1 - Principles

Principle 1

- Mainly support
- Number of comments about need to clarify meaning of comparability (even if support indicated) – subject of question 2 anyway
- Some US stakeholder views - it is not necessary to adopt a different accounting valuation approach in order to develop a global risk-based measure
- Regional bias to those who do not support – predominantly North American

# Question 1 - Principles

Principle 2

**ICS Principle 2 - The main objectives of the ICS are protection of policyholders and to contribute to financial stability.**

The ICS is being developed in the context of the IAIS Mission, which is to promote effective and globally consistent supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders and to contribute to global financial stability.

# Question 1 - Principles

Principle 2

- Main issue – need to have less focus on financial stability and more focus on policyholder protection
  - Some say there should be no mention of financial stability
  - Some say it should be a second order consideration
  - Point mainly made by North America respondents

# Question 1 - Principles

Principle 9

**ICS Principle 9 – The ICS is transparent, particularly with regard to the disclosure of final results.**

- Main issue seems to be the need for greater clarity as to nature of the disclosure

# Question 2 What does comparability mean for the ICS from your perspective? - some industry comments

2 main themes from responses from industry

- Comparability should be outcomes based
  - Sometimes outcome of policyholder protection
  - Sometimes outcome of supervisory assessment

- Local regimes that are consistent with the ICS framework on an outcomes-based analysis should be recognised as a suitable implementation of the ICS framework

# 3 Valuation 13:00 – 14:30

# Valuation

- Overall design of ICS - total balance sheet approach
- ICS Principles – complementary goals for valuation
  - Comparability – ICS Principles 1 and 5
  - Promote prudentially sound behaviour while minimising inappropriate procyclical behaviour – ICS Principle 7
- Segmentation noted as issue for further consideration across both valuation bases
- The absence of a consistent and comparable valuation basis across jurisdictions constitutes one of the main hurdles to be overcome to ensure the successful development of the ICS

# Valuation

- In October 2014, the IAIS decided that

> *"The market-adjusted valuation approach will be used as the initial basis to develop an example of a standard method in the ICS.*
>
> *The GAAP valuation approach data will be collected. Reconciliation between the market-adjusted valuation approach and GAAP valuation approach will be requested of the participating IAIGs. This will be used to explore and, if possible, develop a GAAP with adjustments valuation approach."*

- For 2015 Field Testing the IAIS is:
  - Testing refinements to the MA valuation basis
  - Collecting data on the GAAP with Adjustments valuation basis
  - Asking volunteers to provide both valuation bases

# 3A ENHANCEMENTS TO MARKET-ADJUSTED VALUATION APPROACH

# MOCE

- 2014 Field Testing
  - (GAAP-)MOCE calculated during the 2014 FT is a balancing item;
  - Difference between the jurisdictional GAAP insurance liabilities and the current estimate as specified for FT.

- 2015 Field Testing
  - Investigation of a consistent and comparable MOCE.
  - Consistent with ICP 14.9:

    *The MOCE reflects the inherent uncertainty related to all relevant future cash flows that arise in fulfilling insurance obligations over the full time horizon thereof.*

# Purpose of the MOCE

Two families of purpose for a consistent and comparable MOCE:

- Margin for prudence
  - To cover insurance obligations at a particular confidence level;
  - To prevent/limit the recognition of profit at inception of the contract.;
  - One approach is to use a percentage of insurance liabilities

- Margin to recognise a transfer value (including “own fulfilment” purpose)
  - To allow for the transfer of insurance obligations under distressed conditions; or
  - To allow for the transfer of insurance obligations under normal conditions.
  - One approach is a simplified version of cost of capital

# For field testing C-MOCE

- The cost of capital approach has been described in the field testing data request.

- The prudence margin approach will use existing field testing data

# IAIS yield curves

- 2014 field testing
  - Risk free interest rate curves developed based on market data.
  - Adjustment applicable to all insurance liabilities (based on 40% of the actual corporate bond spread at the 10 year maturity point).
  - The curves are flat after 30 years.

- Objectives for 2015 field testing
  - Reflect on the feedback received.
  - Refine the approach used during the 2014 field testing.

# Discounting feedback received

- Feedback from 2014 field testing
  - Mainly concerns with volatility and harm to the long term nature of insurance business

- Additional feedback received from industry
  - Long duration discount rates should not be extrapolated from extremely limited tenors
  - Use more stable long-term rate based on a macroeconomic or historical approach
  - Transition period between liquid maturities and long term rate

- Feedback from Stakeholder session presentations from:
  - Manulife in Los Angeles;
  - GDV in Rome.

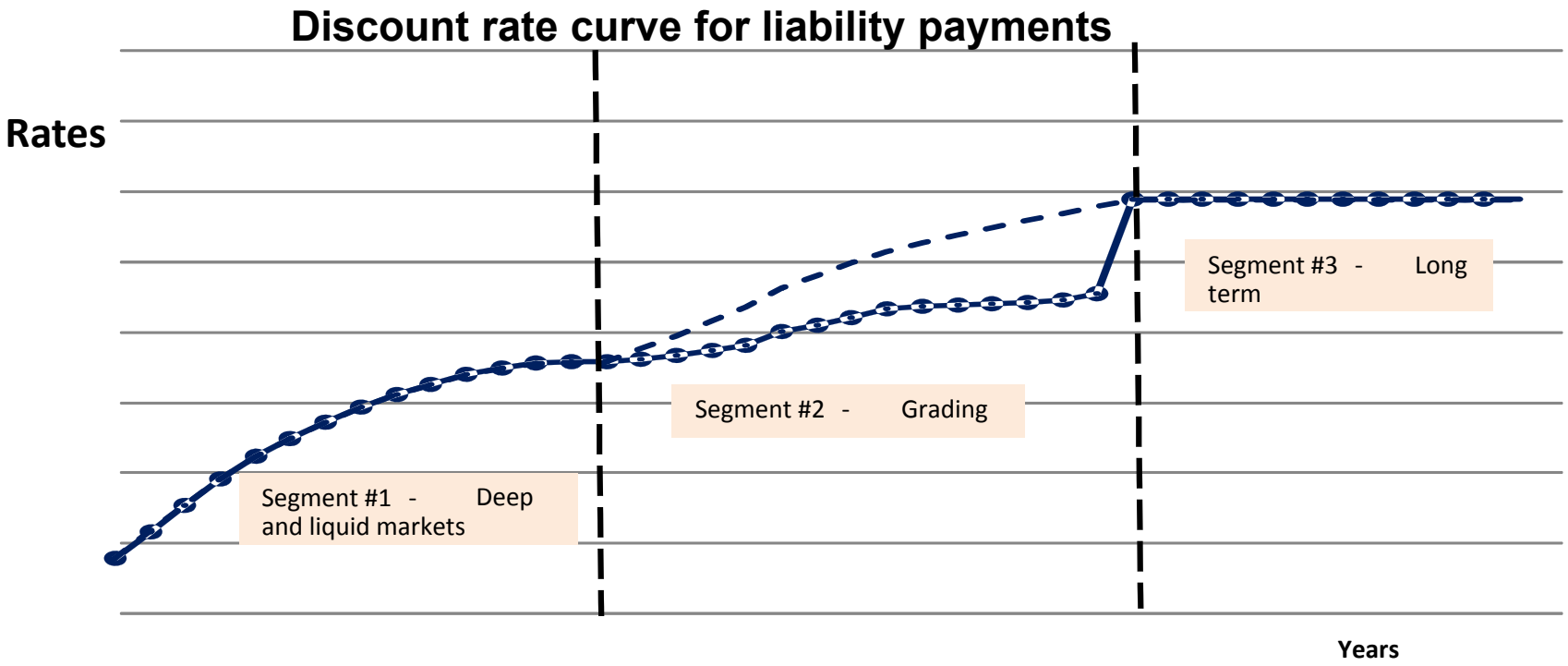
# For 2015 FT – IAIS specified discount curves

- Two changes from 2014 Field Testing specifications to address long-term guarantee products:
  - Adjustment to base rates for development of yield curves; and
  - A two-bucket approach to determining the spread from the base rates

- The two-bucket approach will be addressed in the questionnaire accompanying the template

- The base rates for the IAIS specified yield curves to be developed along the lines of the industry proposals presented in detail during the Los Angeles and Rome stakeholder meetings

# 3 part base discount curve per industry suggestion




**Segment # 1** - using market information adjusted for credit at most at 30 years (depending on market's liquidity)
**Segment # 2 –** using an extrapolation technique
**Segment # 3** - relying on a stable long term forward rate (starts at 60 years for all currencies)

# 2015 FT - Development of base yield curves

- IAIS will specify yield curves for 35 currencies – base rate plus spread – the top 35 traded currencies as per BIS research

- There will be 7 additional currencies added to the list of yield curves compared to 2014 and 3 provided in 2014 will not be included in 2015

- The long-term forward rate for the 3rd segment will be based on long-term growth forecasts plus the long-term target inflation for each currency as per OECD research

- The OECD research is not available for all currencies

# Adjustments to base yield curves: Two bucket approach to spread

- The approach for determining the spread to be included on top of base rates in a 'two-bucket' approach:
  - Bucket 1 applying to most insurance products incorporating a percentage of the spread to the credit risk adjusted earning rate of a reference portfolio
  - Bucket 2 for those products that would meet strict characteristics in terms of liquidity/predictability. In these cases, a more portfolio-specific approach could be envisaged, basing the adjustment on the spread of the assets effectively held by the IAIG to back the insurance liabilities, corrected to reflect default and downgrade risks
- However, the two-bucket approach will not be tested in a quantitative manner in 2015 as the criteria for bucket 2 needs more development. The two-bucket approach will be addressed in the questionnaire accompanying the field testing template
- For all insurance products we will use a spread from base yield curve calculated on the same basis as 2014 field testing – essentially 40% of the spread to a reference portfolio of high-quality corporate bonds.

# 3B GAAP WITH ADJUSTMENTS VALUATION APPROACH

# Why GAAP+

- Concerns of some members of the IAIS
  - Precedence in basing capital requirements on audited data, systems and processes
  - Deterministic v. stochastic reserving
  - Transparent and verifiable to supervisors
  - Address U.S. mutuals that file SAP which, for them, is GAAP
  - Roles of accounting and of auditing standard setters
    - Independent expertise; discipline; enforcement
    - IASB final standard no sooner than the end of 2015 and effective no sooner than three years after publication
    - If (more) convergence would result, could lead to lower maintenance costs/efforts in the long run for the ICS; continue to monitor

# Basic characteristics of GAAP Plus

- Focus only on the key items, i.e., invested assets and insurance liabilities, which should be adjusted from GAAP to a best estimate/consistent basis - Like MAV
- Other prudential adjustments in the ICS guidance on capital resources should be consistent between MAV and GAAP Plus unless there is a compelling reason related to the differentiated treatment of invested assets and/or insurance liabilities
- Adjustments based on amounts, disclosures, systems and processes that are subject to independent audit and thus practicable and reliable given each firm's existing audited GAAP basis of reporting

# GAAP Plus – Jurisdictional GAAP Examples

1. IFRS (Europe)
2. IFRS (Canada)
3. Japanese GAAP
4. U.S. GAAP
5. U.S. Statutory Accounting

- Volunteer IAIGs that report under another jurisdictional GAAP should follow the following procedures:
  - Review the GAAP Plus Guidelines – Section 10.1 of the Technical Specifications
  - Determine whether any of the GAAP Plus examples provided could be adapted
  - Consult with supervisor representing the jurisdiction on the IAIS on proposed adjustments

# Examples of Adjustments for GAAP Plus

- Insurance Liabilities – adjust to current estimate, using constructs from jurisdictional GAAP:
  - Life contracts – use of loss recognition testing (US), cash flow testing (Japan), Canadian asset valuation model (Canada), Solvency II valuation (Europe)
  - Options/Guarantees – existing stochastic approaches with adjustment to remove exit value components
  - Non-life contracts – no adjustment or simplified discounting approaches
- Investment Assets – adjust all assets to fair value (Japan, Europe)
- Other Adjustments – reverse DAC, VOBA capitalized expenses, reverse shadow accounting (US)

# For 2015 FT - Update on GAAP with adjustments

- 2015 Field Testing Technical Specifications includes jurisdiction-specific examples with guidance

- Templates for detailed balance sheet, and reconciliation of insurance liabilities from GAAP to GAAP with adjustments to MAV

- Decision to test ICS capital charges on: Mortality risk, NL Claim Reserve Risk, Interest Rate Risk and Equity Risk using same methodology and calibration as for MAV

# U.S. Example for GAAP+

- Insurance Liabilities – adjust to current estimate as in MAV, using constructs from U.S. GAAP:
  - Life contracts – use of gross premium valuation component of loss recognition testing (GPV)
  - Options/Guarantees – existing stochastic approaches under U.S. GAAP with adjustment to remove exit value components
  - Non-life contracts – simplified discounting approach
- Investment Assets – no adjustment of GAAP reported values (e.g., mostly at fair value)
- Will collect data to consider a potential adjustment for unrealized gains/losses on debt securities in AOCI to address the GAAP+ guidance as to consistency of valuation between assets and liabilities.

# The Reconciliation

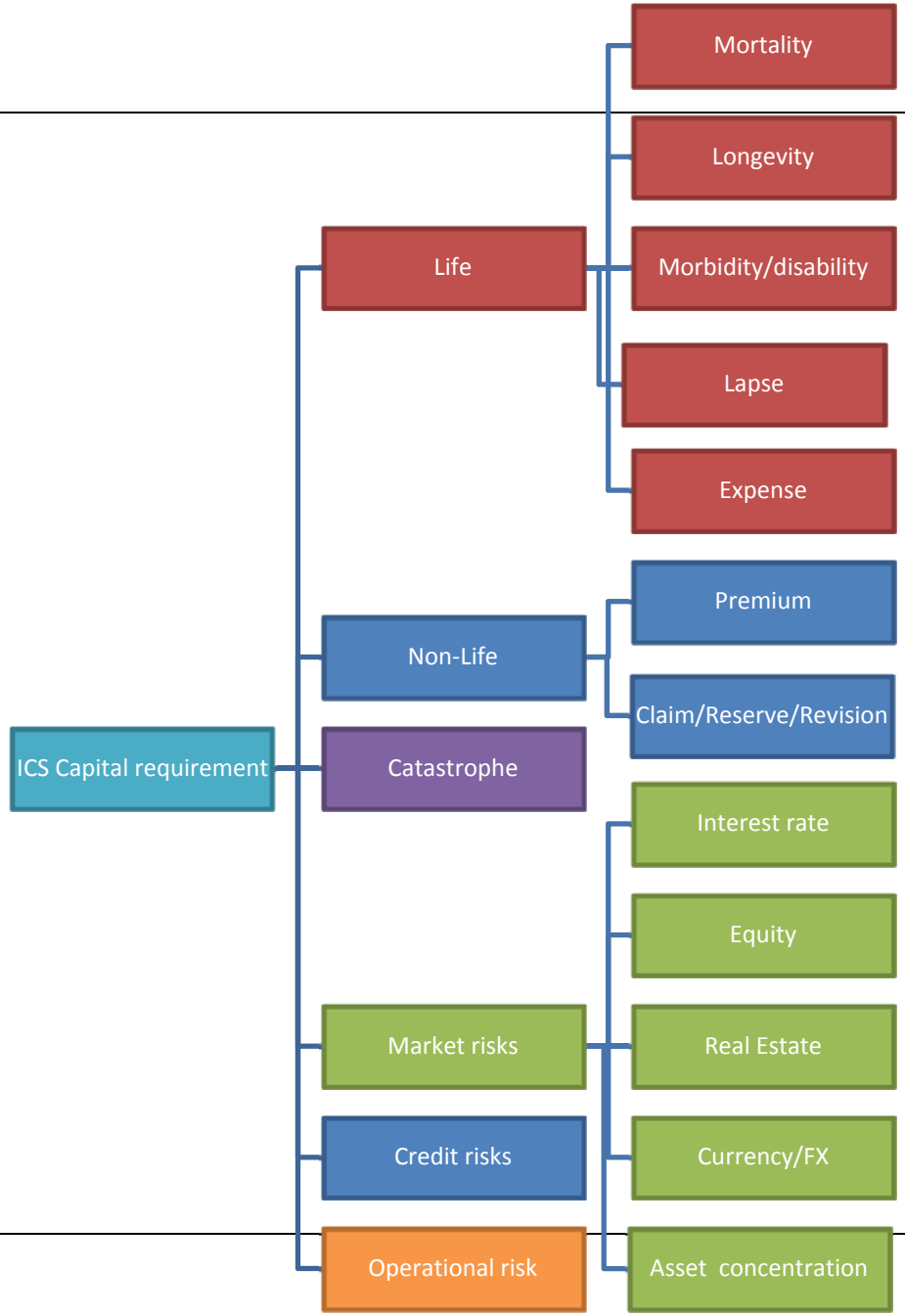
- Data Collection Template
  - General balance sheet comparison and reconciliation between GAAP, GAAP+ and MAV
  - More detailed reconciliation of the differences for insurance liabilities and collection of supplemental data
    - Updating assumptions, rates
    - Elimination of additional margins/PADs
    - Contract boundaries, other
    - Evaluating proposed reconciliation approach with volunteers regarding feasibility/available data
  - Supplemental data requests in support of GAAP+

- Qualitative questionnaire

- Intent is to understand the drivers of differences between GAAP+ and MAV to inform future changes and field test exercises

# 4 ICS CAPITAL REQUIREMENT: AN EXAMPLE OF THE STANDARD METHOD USING THE MARKET-ADJUSTED VALUATION BASIS – 14:30 TO 15:45

# ICS Chart


ICS Capital requirement
Life
Non-Life
Catastrophe
Market risks
Credit risks
Operational risk
Mortality
Longevity
Morbidity/disability
Lapse
Expense
Premium
Claim/Reserve/Revision
Interest rate
Equity
Real Estate
Currency/FX
Asset concentration

# General Approach

| Risk/Sub-risk<br><br>Potential Approach | Factor-based | Stress | Other |
|---|---|---|---|
| Insurance risks | | | |
| • Mortality | | ✓ | |
| • Longevity | | ✓ | |
| • Morbidity/disability | | ✓ | |
| • Lapse | | ✓ | |
| • Expense Risk | | ✓ | |
| • Premium | ✓ | | |
| • Claim reserve/revision | ✓ | | |
| • Catastrophe | | | ✓ |
| Market risks | | | |
| • Interest rate | | ✓ | |
| • Equity | | ✓ | |
| • Real estate | | ✓ | |
| • Currency/FX | | ✓ | |
| • Asset concentration | ✓ | | |
| Credit risk | ✓ | | |
| Operational Risk | ✓ | | |

- These risks will be combined through a correlation matrix in the ICS summary sheet to recognise risk diversification. This is automatically done in the template; volunteers do not have to enter any data for the aggregation

# Geographical Segmentation

- Default approach

| Region | Countries included |
|---|---|
| EEA and Switzerland | Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Iceland, Liechtenstein Norway and Switzerland |
| USA and Canada | USA and Canada |
| China | Mainland China, Macao SAR |
| Japan | Japan |
| Other developed | Australia, Israel, San Marino, Korea, Singapore, Chinese Taipei, Hong Kong SAR |
| Emerging markets | Refer to IMF World Economic Outlook April 2015 classification |

- NB – a different classification has been used for equity risk – re MSCI ACM Index

# Extract of example standard method

- Field testing calibration of selected risks shown on following slides
- Full calibration details to be released with field testing package in June

# INSURANCE RISKS

# Mortality risk - Overview

- Stress-based approach
- For the 2015 field testing, stress applied only to the level of mortality
  - Trend and volatility are not included
  - Catastrophe will be covered as part of the catastrophe component (pandemic scenario)
- The mortality risk charge calculation only applies to those policies that are subject to mortality risk.
- Only applicable to life business

# Mortality risk - Structure

- Defined stress: Increase of x% in mortality rates at all ages for all policies where an increase in mortality rates would lead to a decrease in the net asset value, i.e.
  $(1 + x\%) \times$
  $base\ mortality\ assumptions$

| *Mortality stress* | *x%* |
|---|---|
| EEA and Switzerland | 15% |
| US and Canada | 15% |
| China | 15% |
| Japan | 15% |
| Other developed markets | 15% |
| Emerging market | 15% |

- The $Mortality\ Risk\ Charge$ should be first calculated under the condition that the scenario does not change the value of future discretionary benefits in the technical provisions

- No geographical diversification is assumed when calculating the mortality risk charge.

# Morbidity/disability risk - Scope

- Morbidity/disability risk can be applied to both life and non-life business that is exposed to similar to life morbidity/disability risk. non-life Insurance obligations should be classified into life segments if and only if the calculations of the corresponding technical provisions are based on biometrical variables.

- Stress-based approach, designed as a combination of stresses of all the risk factors :

| | |
|---|---|
| Sickness | Disability |
| Long-term care | Loss of income |
| Critical illness | Health insurance |
| Accidental work/occupational disease | |

# Morbidity/disability risk - Structure

- The risk charge for morbidity/disability is the combination of three simultaneous shocks.
  - An increase of the inception rate of 30% for all regions;
  - A decrease of the recovery rate of 20% for all regions;
  - An increase of claim payments combined with an absolute increase in their inflation rate:

| | Increase in claim payments | Increase in inflation rate |
|---|---|---|
| EEA and Switzerland | 5% | 1% |
| US and Canada | | |
| Japan | | |
| China | | |
| Other developped countries | | |
| Emerging markets | 5% | 3% |

# Premium and claim/revision specificities

- Apply to the non-life risks not already covered by the life (mortality/longevity), morbidity/disability or cat risks
- On a segmentation informed by the field testing exercise
- Distinguishing between future insured events (premium risk) and already incurred events (claims/revision risk)
- Using mainly premiums and current estimates as exposure measures

# For 2015 FT - Premium risk calibration

- 8 buckets with jurisdictional segments mapped to the 8 buckets
- Factors applied to greater of net earned premium and premium to be earned

| Bucket | Factor % |
|---|---|
| 1 | 15 |
| 2 | 25 |
| 3 | 30 |
| 4 | 35 |
| 5 | 45 |
| 6 | 50 |
| 7 | 55 |
| 8 | 70 |

# For 2015 FT - Claim reserve/revision risk calibration

- 8 buckets with jurisdictional segments mapped to the 8 buckets
- Factors applied to net current estimate

| Bucket | Factor % |
|---|---|
| 1 | 10 |
| 2 | 20 |
| 3 | 25 |
| 4 | 30 |
| 5 | 35 |
| 6 | 40 |
| 7 | 45 |
| 8 | 50 |

# For 2015 FT - Aggregation of premium and reserve risk

- 3 steps – aggregate premium and reserve risk, aggregate across classes (property like, liability like and other), aggregate at regional level
- Premium and reserve risk to be correlated on the following basis - (property - 25%, other - 50%, liability - 75%)
- Correlation across classes per following table

| | Recommended correlation |
|---|---|
| Property & liability | 50% |
| Property & other | 50% |
| Liability & other | 50% |

- The non-traditional mortgage will be aggregated with real estate (in market risk)
- Non-traditional credit will be aggregated with credit risk
- Remaining non-traditional will be added to the non-life risk charge
- Regional correlations – 25%

# Catastrophe risk

- One worksheet to collect data
- Catastrophe risk scenario tested:
  - some covered non-life: e.g. natural catastrophe, marine, aviation, liability cat , credit and surety
  - Some covered life: e.g. pandemic
  - Some covered both: e.g. terrorism
- Explicit recognition of external protection e.g. reinsurance
  - Subject to recognition of the associated credit risk
- Aggregation of scenarios assuming mutual independence

$$ICS_{Cat} = \sqrt{ICS_{NatCat}^2 + ICS_{NaTerror}^2 + ICS_{Liab}^2 + ICS_{Pand}^2 + ICS_{Marine}^2 + ICS_{Aviation}^2 + ICS_{Credit}^2}$$

# Catastrophe risk – data collection

- Natural Catastrophe
  - Annual aggregate loss amounts (gross/net) split into for 4 main perils and 4 main regions
  - Use of catastrophe models allowed
  - Several confidence level points requested, e.g. 99% Var, 99.5% Var as well as few Tvar points

- Other than natural catastrophe
  - Loss amounts (gross/net) split into high level categories, e.g. 6 geographical areas or few relevant lobs

# INTEREST RATE RISK

# 2015 FT - Interest rate risk calibration

- Three interest scenarios will be tested:
  - risk free curve up
  - risk free curve down
  - flattening of the curve (short term rates move up while long term rates move down)

- Formulas provided to determine revised yield curve

- For 35 currencies where IAIS will provide a specified curve the three stressed curves will also be provided

# CREDIT RISK

# Overview of credit risk

- Factor based approach
- 7 rating levels mapped to major rating agencies ratings plus an unrated category and in default category
- Criteria for recognising regional rating agencies in the same rating level framework
- Recognise NAIC ratings in rating levels
- 11 maturity buckets (10 buckets from 0 - 1 years to 9 - 10 years, 10+ years)
- Factors are assigned to rating levels by maturity buckets

# Factors – Example Corporates and Reinsurance Exposures

| Rating Category | Maturity: 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10+ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 or 2 | 0.2% | 0.6% | 0.8% | 1.0% | 1.2% | 1.3% | 1.4% | 1.5% | 1.5% | 1.6% | 1.6% |
| 3 | 0.6% | 1.4% | 1.6% | 1.8% | 2.0% | 2.1% | 2.3% | 2.4% | 2.5% | 2.6% | 2.6% |
| 4 | 1.4% | 3.4% | 3.8% | 4.1% | 4.4% | 4.5% | 4.6% | 4.6% | 4.6% | 4.6% | 4.6% |
| 5 | 3.6% | 8.1% | 8.7% | 8.9% | 8.9% | 8.9% | 8.9% | 8.9% | 8.9% | 8.9% | 8.9% |
| 6 | 8.9% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% | 16.2% |
| 7 | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% | 38.0% |
| Unrated | 6.3% | 12.2% | 12.5% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% | 12.6% |
| In Default | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 38% | 38% |

# OPERATIONAL RISK

# For 2015 FT - Operational risk

- Operational risk charge  is the addition of:
  - The maximum of a non-life operational risk component by applying a factor to either gross written premium or gross current estimate with factors:
    - On GWP – 3% for direct, 2.5% for assumed
    - On gross current estimate – 3% for direct, 2.5% for assumed
  - Where applicable a factor for growth of non-life business over a threshold :
    - 20% growth in GWP with factors above applied to excess
  - The maximum of an operational risk charge component by applying a factor on life risk business measured by either gross written premium or current estimate with factors:
    - On GWP 4% for direct, 3.5% for assumed
    - On gross current estimate – 0.4% for direct, 0.35% for assumed
  - Where applicable a factor for growth of life business over a threshold
    - 20% growth in GWP with factors above applied to the excess
  - An operational risk charge on non-risk life business measured by applying a factor to current estimates with factors:
    - On gross current estimate – 0.45%

# AGGREGATION

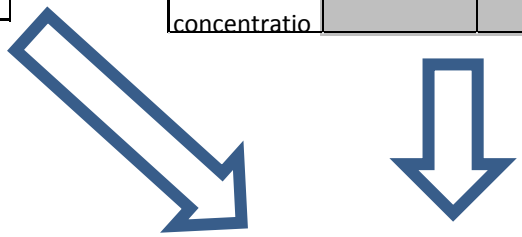
# Aggregation / diversification

- Aggregation using correlation matrices
- Calculation embedded within the template
  - No additional data input required
  - Preliminary calibration of the correlations included/displayed in the template
- Aggregation done in multi-steps
  - Within major ICS components: market risk, life insurance, non-life insurance
  - At the global ICS level: between market, life, non-life, catastrophe, credit

# Aggregation / diversification - illustration

| **Life risk** | Mortality | Longevity | Morbidity/ disability | Lapse | Expenses |
|---|---|---|---|---|---|
| Mortality | 1 | -25% | 25% | 0% | 25% |
| Longevity | | 1 | 0% | 25% | 25% |
| Morbidity/ disability | | | 1 | 0% | 50% |
| Lapse | | | | 1 | 50% |
| Expenses | | | | | 1 |

| **Market risks** | Interest rate1 | Equity | Real estate | currency | Asset concentration |
|---|---|---|---|---|---|
| Interest rate1 | 1 | 25% | 25% | 100% | 25% |
| Equity | | 1 | 0% | 0% | 0% |
| Real estate | | | 1 | 0% | 0% |
| Currency | | | | 1 | 0% |
| Asset concentratio | | | | | 1 |



| **ICS Global** | Non-life | Catastrophe | Life | Market | Credit |
|---|---|---|---|---|---|
| Non-life | 1 | 25% | 0% | 25% | 25% |
| Catastrophe | | 1 | 25% | 25% | 25% |
| Life | | | 1 | 25% | 25% |
| Market | | | | 1 | 25% |
| Credit | | | | | 1 |

# 6 OTHER METHODS OF CALCULATING THE ICS CAPITAL REQUIREMENT – 16:00 TO 16:30

# Section 10 – Other Methods

- ICS may provide a range of options for determining the ICS capital requirement for IAIGs. The example standard method (Section 9) is one option.

- All of such methods must meet the ICS Principles; ICP 17

- Open question on the variation to standard method that should be allowed while ensuring comparability

- Possible other methods:
  - Variation in factors or parameters (leading to more prudent outcomes / better risk sensitivity)
  - Use of internal (and/or external) models

# 7 Capital Resources 16:30 – 17:30

# Capital Resources

## Proposed Changes from BCR to ICS:

- Modified naming: Tier 1 and Tier 2 instead of Core and Additional
- Introduce a Tier 1 composition limit in order to manage the quality of instruments in Tier 1 capital resources
- Qualifying criteria will distinguish between two types of Tier 1 instruments
- Tier 1 for which there is not a limit (e.g. common/ordinary shares): highest quality as these instruments take the first loss
- Tier 1 for which there is a limit (e.g. preferred shares and hybrid instruments): not highest quality because they do not meet all of the criteria for no-limit Tier 1 (e.g. they have a preference as to distributions or characteristics of a debt security, etc.)
- Tier 2 capital resources distinguished into paid-up and not yet paid-up
- Note: Relationship between BCR ('fixed') and ICS re Capital resources (evolving)

# Capital Resources

## Feedback from ICS Consultation

- Half of respondents prefer two tiers of capital, while one-third prefer no tiering at all; 10% of respondents favoured a three-tier system.
- The majority of respondents favour one ratio to express ICS capital adequacy.
- There is strong support for the inclusion of non-paid-up capital items, up to a limit.
- Most respondents favour expressing limits on capital resources (Tier 1 for which there is a limit and Tier 2) as a percentage of the ICS capital requirement.

# Capital Resources

Feedback from ICS Consultation

- The majority of respondents support the inclusion of the residual amount of GAAP insurance liabilities in excess of current estimate plus consistent MOCE in Tier 1.

- There is strong support for transitional arrangements for non-qualifying instruments. The suggested length of transition varied from 5-10 years to full grandfathering.

- Several respondents expressed that senior debt issued by the holding company, where the proceeds were then downstreamed into the operating insurance companies as a capital contribution, should be included in capital resources.
  - They questioned the exclusion of senior debt, while allowing some non-paid-up items to qualify.

# FT 2015: Capital Instruments issued by Volunteer IAIGs

- Financial instruments may take a number of different forms including common or ordinary shares, preferred shares, hybrid capital instruments, subordinated bonds or debt, and surplus notes.
- Financial instruments qualifying as capital resources will be classified into either Tier 1 or Paid-Up Tier 2 capital (for ICS), or Core or Additional Capital (for BCR)
- Volunteer IAIGs should concentrate on the substance of the item rather than the legal form of the instrument (e.g. preferred shares or subordinated debt).
- The field testing criteria will be subject to analysis, further review, and possible change after the completion of field testing.

# 8 NEXT STEPS, WRAP UP, FEEDBACK AND FUTURE CAPITAL-RELATED STAKEHOLDER MEETINGS – 17:30 TO 18:00

# High-level ICS Milestones

| Date | Activity |
|---|---|
| End-June 2015 | Part I of the second quantitative field testing information submitted to IAIS |
| Mid-August 2015 | Part II of the second quantitative field testing information submitted to IAIS |
| December 2015 | Consultation on ComFrame, including ICS, revised after second quantitative field testing |
| End-April 2016 | Launch of third quantitative field testing |
| End-June 2016 | Third quantitative field testing information submitted to IAIS |
| December 2016 | Finalisation of the ICS |
| From 2017 | Start of ICS confidential reporting to supervisors |
| December 2017 | Consultation on ComFrame, including ICS, adopted in December 2016 and refined after first year of reporting to supervisors |
| Fourth quarter 2018 | ComFrame, including ICS, adopted by IAIS Members at General Meeting |

# End of capital related stakeholder meeting

- How did the format work?
- Was it helpful?
- Is the timing of the stakeholder meeting useful?
- Length of the meeting?
  - We thought it needs to provide enough time for stakeholders to justify the travel
- Other thoughts

# Other Stakeholder meetings

Capital related stakeholder meetings with CDWG/FTWG members

- Tuesday 12 May in Tokyo
- Tuesday 4 August in Basel
- Monday 5 October in Basel

General Stakeholder Hearing

- Friday 19 June, Macau

IAIS

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS

# Thank you