

IAIS Consultations

Print view of your comments on "Risk-based Global Insurance Capital Standard (ICS) version 1.0 Public Consultation Document" - Date: 31.10.2016, Time: 16:30

Organisation	International Actuarial Association
Jurisdiction	International
Role	Other
Name	Amali Seneviratne
Email	amali.seneviratne@actuaries.org
Phone	+1-613-236-0886 (Ext:116)
Treat my comments as confidential	No

Question	
	Q1 Section 3 Should the IAIS further define the concept of an insurance-led financial conglomerate to give greater certainty to supervisors and IAIGs as to how the head of an IAIG will be identified in a complex conglomerate structure? If "yes", is the proposed definition a helpful start and if so what further specification is suggested?
Answer	Yes
Answer Comment	<p>The IAA believes that a single clear definition of the head of an insurance group (HoIG) which serves the ICP's, Comframe and ICS together is very important for group-wide risk, capital management and supervision. The IAA believes this to be in the best interests of policyholders, shareholders and supervisors. But, the ICS is only one aspect of the supervisory tools used in group-wide supervision. Lack of a common approach across the integrated IAIS standards will result in ambiguity, varying practices among groups and supervisors and hence lead to supervisory inefficiency, regulatory arbitrage and an undermining of the ICS goals. The outstanding concepts needed here are: 1. The ICS CD appears to focus only on insurance-led financial conglomerates and does not appear to deal with all IAIG structures such as those which have non-insurance entities as the HoIG. Avoiding this real-life situation may incent large insurance businesses to re-structure themselves (through the addition of non-insurance entities as holdcos) to avoid IAIG or GSII status. The IAA notes that neither the current ICP nor Comframe language defines the HoIG 2. Identification of the HoIG is important to insurance groups as it is the highest entity in the conglomerate/group structure to exercise control over the insurance entities throughout the group. As such, the HoIG would be expected to carry out risk and capital management as well as control functions (such as the actuarial function) across the group. It would be expected that the HoIG would exercise good governance across the group by (in part) ensuring that adequate risk management, capital and controls are in place in each entity of the group as well as across the group. Specifically, as one example of good governance practices, it would be expected that the HoIG would manage the quantum of capital maintained across the group as well as its placement throughout the group entities. The IAA recognizes that groups should be able to structure their operations and business functions as they see fit. For example, an HoIG need not have an AF of its own but should be able to access such expertise as needed in operating the insurance group. Identification of the HoIG is also important to supervisors as it greatly facilitates effective and efficient group-wide supervision by all involved supervisors. Once identified, involved supervisors can select from their midst the group-wide supervisor who will be the main contact with the group and the HoIG specifically.</p> <p>3. The IAA recognizes that arriving at a clear definition of an HoIG (for all insurance groups including IAG's) has been difficult for the IAIS to achieve. IAA also believes that, even in attempting to define an HoIG, we prefer/recommend a principles-based approach that avoids artificial limits on organizational design and organizes its requirements around the common business activities across those designs. Proper determination of the scope of the group is also vital to ensure that all key risks to which the insurance entities are subject are considered by the insurance group and involved supervisors. The concepts included in ICP</p>

23 are helpful in this regard in their reference (for example) to the legal entities that are part of the insurance group (ie ICP 23.1) as well as the need for the group-wide supervisor, in cooperation and coordination with other involved supervisors, to determine the scope of group-wide supervision.

4. One concept which the IAA believes is absent from ICP 23 (and perhaps elsewhere in the ICP's as well) is that group-wide supervision (and hence the ICS as a key component) considers all key risks to the group and the insurance entities within the group. ICP 23.2.2 (guidance only) hints at this need but is not as specific. Important risks to insurance entities arise not only from within their own operations but also from other entities within the group (including the HoIG) with which they have various forms of linkages.

In the public interest of providing a constructive alternative for the definition of an HoIG, the IAA suggests that an HoIG be defined as, The entity (insurance or otherwise) which owns/controls the insurance entities of the group. If that controlling entity is itself owned or controlled by an upstream entity which exercises significant control or influence over the business of the insurance entities (other than third party investment) then it may be considered to be the HoIG. Further, if that upstream entity owns/controls other insurance entities (directly or indirectly) for which there are linkages through to the insurance entities elsewhere in the group, then that upstream entity should be considered to be the HoIG.

For these reasons the IAA believes that the concept of HoIG requires better definition as it is important not only for purposes of the ICS but also for broader group governance and group supervision. The ICS proposal for a definition applicable for ICS purposes only is too narrowly focused. The IAA supports the on-going work of the IGWG to find core fixes in the ICP's and Comframe with respect to group-wide supervision. With this introduction to Q1, the IAA suggests to the IAIS that no further effort is necessary or helpful in the definition of an insurance-led financial conglomerate. Instead, effort should be focused on the broader issue of HoIG definition.

Q2 Section 3 Are there any instances of groups likely to be identified as IAIGs where it is likely supervisory judgement will need to be exercised in determining the level at which the group consolidated balance sheet should be prepared for ICS purposes? If "yes", what is the nature of the uncertainty in identifying the Head of the IAIG?

Answer Yes

Answer Comment The IAA notes that there may currently be relatively few instances of IAIG's in which it may have been difficult to determine the level of the HoIG in the organizational structure of the group (i.e. due to several layers of holdcos). However, as these IAIG's may also represent some of the biggest groups globally, for purposes of demonstrating coordinated control over insurance entity risks it would be prudent practice for IAIG's to self-identify their HoIG. This choice would of course need to be reviewed by involved supervisors. The IAA suggests that our response to Q1 also provides further useful background.

Q2.1 Section 3 If "yes" to Q2, is this uncertainty related to the insurance group or financial conglomerate forming part of a wider group? If "yes", please describe concerns with identifying the correct Head of the IAIG.

Answer Yes

Answer Comment As noted earlier, the IAA advocates for the comparable assessment and provisioning for the risks (e.g. via risk management, valuation of assets and liabilities, capital requirements etc) of insurance entities no matter where they are positioned within an IAIG. From a risk management perspective (and also for receiving appropriate actuarial function advice), the entity which controls all the insurance group(s) within the conglomerate should be the HoIG. The IAA recommends that the HoIG satisfy itself that it has sufficient access to actuarial function advice.

Q3 Section 3 Given the description of entities to be included in the consolidation for ICS purposes, are there uncertainties as to material entities that should be included within the perimeter of the ICS calculation? If "yes", for which types of entities are supervisors and IAIGs most likely to benefit from greater specification of the scope of the group?

Answer Yes

Answer Comment	The IAA does not advocate for addition of further entities into the perimeter of the ICS calculation. However, the IAA does advocate for the consideration of the risks arising from linkages between entities in the group, with the HoIG and outside of the group.
	Q4 Section 3 Are there any further comments on this section on the scope of group that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	No
	Q5 Section 4.1.1 Do the adjustments to GAAP specified in the 2016 Field Testing Technical Specifications for the construction of the MAV balance sheet succeed in providing a largely comparable picture of the financial situation of IAIGs and a consistent basis for the calculation of the ICS? Please explain.
Answer	No
Answer Comment	<p>If one assumes the future cash flows are fixed, then the adjustments make general sense. Section 74(c) of the specifications states that financial liabilities should be adjusted to fair value; e.g., both US GAAP and IFRS state that credit spread adjustments should be made to financial liabilities. However, note that disallowing credit spreads in IAIG liabilities is consistent with disallowing credit spreads in insurance liabilities.</p> <p>But, since cash flows are not fixed (due to dividends and discretionary credits for many long term products), there are several problems with all of the alternate methods proposed for the discount rate for liabilities. The IFRS approach is preferable even though we recognize some are concerned it has too few rules in it. The problems with the proposed discount rate methods include:</p> <p>a. The discount rate does not reflect the risk-sharing aspects of the company's business (e.g. participation). As a result, the discount rate must be company-specific if it wishes to reflect those aspects of risk that are mitigated via participatory risk sharing with the policyholder.</p> <p>b. The ultimate forward rate needs to include a credit spread. The current IAIS approach does allow a credit spread on ultimate forward rate: 10 basis point spread adjustment for segment 2 (transition period) and 3 (ultimate). (see technical specification paragraph 141). Several members have expressed that there are more reasonable calibrations to use, but they have not been able to provide them within the comment period requested..</p> <p>c. There are two approaches to ensure the proper stability in MAV net worth over time: i. One is a top-down approach to get the discount rate. Here, the expected total return is reduced by a spread based on the investment risks inherent in the liabilities and the spread reduction is a stable long term estimate, not a number that fluctuates with every market movement in credit spreads. If the spread reduction moves with market spreads (as all currently proposed methods do) the result is volatility in the long term estimate of the same sort that would arise if material changes in estimates of other long term assumptions were made on every valuation date. When these liabilities are not "cashable" (liquid) in the market, and are not applied consistently across assets and liabilities, the result will be "wrong" every time the market changes until the redemption date(s). ii. The second way would be to adjust assumed bonus rates consistently with assumed investment returns. That way has the advantage that it tests bonus supportability at the same time. This is a "bottom-up" approach which is built off of a risk-free rate ("market consistent") approach.</p> <p>The method chosen depends on the underlying valuation framework objective. Since option i. looks at real world returns and participation, it more easily conforms to an actual to expected model/assumption validation process where the benefits (and hence risk margins) are larger than they would be under option ii.</p>
	Q6 Section 4.1.1 Are there any other material areas of divergence across existing GAAPs (or statutory accounts) that should be subject to adjustments when constructing the MAV balance sheet? If "yes", please explain.
Answer	No
	Q7 Section 4.1.3 Should MAV include a more economic approach to contract boundaries (eg renewal rate and stability of premiums) rather than focusing on contractual or legal aspects? If "yes", why would this provide a better assessment of the solvency position of IAIGs?
Answer	Yes

Answer Comment	We prefer an economic approach to these items. Over the last several years, this became a large issue of discussion that IASB had with various stakeholders in developing its insurance accounting standards, which are now in exposure draft form. The IASB settled on a definition that is generally more economic in nature. We feel the IAIS should settle on the same definition, because (1) it is more practical to have one approach instead of two, and (2) the definition is generally more consistent with current company pricing and reserving methods.
	Q8 Section 4.1.3 If an economic approach were adopted, would that make the determination of the contract boundaries more complicated? Please explain.
Answer	No
Answer Comment	This should not be complicated, as long as the approach is identical to that chosen by IASB for IFRS. Insurance companies are already establishing probabilistic assumptions for renewals for some of these contracts.
	Q9 Section 4.1.3 If an economic approach were adopted, the calibration of some ICS risk charges would need to be revised to capture the different exposure to risks (eg Lapse risk). What areas of the ICS capital requirement would be affected and how? Please explain in terms of the defined risks in the ICS capital requirement.
Answer	Lapses are the principal exposure. See our answers to Question 131.
	Q10 Section 4.1.3 To ensure the overall consistency of the framework, the definition of MOCE would need to be reviewed following the adoption of an economic approach to contract boundaries. Would a change to an economic approach to contract boundaries impact the specification of MOCE? Please explain.
Answer	Yes
Answer Comment	A different definition of contract boundaries would impact both the current estimate portion of the liabilities and the MOCE.
	Q11 Section 4.1.3 If material amounts of future business were included in the valuation of insurance liabilities through the consideration of future expected renewals, would the resulting capital resources (future profits) continue to meet the criteria for inclusion in Tier 1 (eg regarding the criterion on availability)? Please explain.
Answer	Yes
Answer Comment	The IASB rules will not allow material amounts of future new business. E.g., it will not allow premiums on most group insurance coverages to be included. In addition, there is no front ending of profit allowed in this framework. Thus, it would be preferable to align with the IASB.
	Q12 Section 4.1.3 Would other components of the ICS, be affected by such change? If "yes", please specify those components and provide an explanation.
Answer	
	Q13 Section 4.1.4.3 Is the current 3-segment approach to the definition of IAIS base yield curves a sound basis to determine the base yield curve? Please explain.
Answer	No
Answer Comment	The three-segmented approach to the definition of the IAIS base yield curve has been thoughtfully developed, but it is the spreads that are added to get to an adjusted discounting yield curve that need to change. We also feel there is a better option. As the IASB has comprehensively debated and now defined their prescription for a discount rate for IFRS Phase II, we would rather the IAIS follow the IASB approach for practical reasons. The IFRS definition allows insurers to use either a top down or bottom up approach. Since IAIS is more concerned with solvency than the IASB is, the IAIS could require an

adjustment so that no company can discount at a rate higher than a BBB bond, which is consistent with one of the proposed IAIS adjustments.

Q14 Section 4.1.4.3 The base yield curves are based on either swaps or government bonds, depending on the liquidity of the underlying markets. Are any of the IAIS' choices of either swaps or government bonds as a basis for determining individual currency yield curves as set out in Table 4 inappropriate? If "yes", for which currencies is the choice inappropriate? Please explain your answer.

Answer

Q15 Section 4.1.4.3 For each currency, the extrapolation period begins at the point where the market for the instruments used no longer fulfils the criteria for being considered deep, liquid and transparent. Is the starting point of Segment 2 inappropriate for any currency? If "yes", for which currencies is the starting point inappropriate? Please explain.

Answer

Q16 Section 4.1.4.3 Currently, the IAIS has adopted the simplification that Segment 3 should start at maturity 60 for all currencies. Should the IAIS continue with this simplification? If "yes", are there any necessary amendments to that approach? If "no", should the IAIS seek to adopt a different approach to determining the start of Segment 3 based on one of the following options?

Answer

Q16.1 Section 4.1.4.3 Should the IAIS harmonise the length of Segment 2 at a set number of years? If "yes", what should be the length of Segment 2?

Answer

Yes

Answer Comment

It should be proportional to the length of liquid market segment (example, 20 years for Canada).

Q16.2 Section 4.1.4.3 Should the IAIS consider determining a minimum convergence point as well as a consistent convergence time and take a maximum of the last point of Segment 1 plus the consistent convergence time and the minimum convergence point? If "yes", what should be the consistent convergence time and minimum convergence point?

Answer

Q17 Section 4.1.4.3 The proposed LTFR is based on a macroeconomic approach using OECD information. Is this methodology appropriate? Please explain.

Answer

No

Answer Comment

We are concerned that this approach is too general and prefer that it should be jurisdiction specific. The grouping just between OECD and non-OECD is too broad. It is not predictable or projectable.

Q17.1 Section 4.1.4.3 If "no" to Q17, should the IAIS develop an alternative methodology to derive the LTFR? Please provide an outline of such an alternative methodology.

Answer

Q18 Section 4.1.4.3 The discounting approach is based on a stable macro-economic long-term anchor while the methodology to derive it may show drifts or even steps over time. Should the IAIS also address the issue of frequency of assessment and ways to update the LTFR? If "yes", please provide details of how the IAIS should address the issue of frequency of assessment and ways to update the LTFR.

Answer

Yes

Answer Comment	Abrupt changes are a concern. While we would prefer a smoother methodology, we do not have a detailed one to recommend other than recommending methods which would smooth the changes in the LFTR over time. The use of moving averages of medium and/or long term tenors over a period such as 10 or 15 years might be the answer.
	Q19 Section 4.1.4.3 Do you have any other proposals for refinement of the methodology to derive the base yield curves? If “yes”, please provide a detailed rationale for your suggestions.
Answer	Yes
Answer Comment	LTFR needs to include a spread assumption, appropriately determined. See, our comments in Question 5
	Q20 Section 4.1.4.4 Which approach to portfolio selection, as a basis for the calculation of the credit spread adjustment, is more appropriate for the MAV approach, taking into account the need to ensure a balance between complexity, comparability and basis risk? Please explain.
Answer	We suggest the use of company own assets, aligned with IFRS 17 methodology. See again, our response to Question 5.
	Q21 Section 4.1.4.4 Is it appropriate to have entity-specific elements in the valuation of insurance liabilities?
Answer	Yes
	Q21.1 Section 4.1.4.4 If “yes” to Q21, to what extent is this appropriate?
Answer	All non-economic assumptions should be entity-specific in order to be consistent with company pricing and current valuation techniques. This is consistent with the IASB’s requirements for current estimates in IFRS Phase II.
	Q21.2 Section 4.1.4.4 If “yes” to Q21, how can that be aligned with the market-based nature of the framework (evident in the approach used to value assets) and the need to protect all policyholders in an equal manner, independently of the individual choices made by each IAIG, as discussed above?
Answer	Entity specific non-economic assumptions are consistent with a fulfilment value approach to liabilities, similar to the approach IFRS Phase II has taken. This approach is still consistent with assets marked to market. Company-specific adjustments can still treat policyholders across companies equally if the adjustments are based on the characteristics of the contract, not characteristics of the company or the policyholder. For example, contract-specific provisions regarding participation or risk-sharing need to be reflected.
	Q22 Section 4.1.4.4 Is it important for the valuation framework, together with the capital requirement framework, to not provide incentives for low quality investments undermining policyholder protection? Please explain.
Answer	Yes
Answer Comment	Our proposed method will put a ceiling on the discount rate, if investments are of very low quality.
	Q22.1 Section 4.1.4.4 If “yes” to Q22, is the capping of the contribution to the Adjustment to that of a comparable BBB asset an effective way of achieving that objective? Please explain.
Answer	Yes

	Q22.2 Section 4.1.4.4	If "no" to Q22.1, what other approaches could the IAIS explore to achieve that objective?
Answer		
	Q23 Section 4.1.4.4	Should insurance liabilities be segregated into buckets for the purpose of applying the credit spread adjustment?
Answer	Yes	
	Q23.1 Section 4.1.4.4	If "yes" to Q23, which criteria are appropriate to allocate liabilities to the different buckets?
Answer	<p>We find this approach acceptable only if management actions can impact the liability value. If not, we do not see the use of buckets. We suggest thinking in terms of three type of liability buckets – Those that have liquidity risk, those that are fixed cashflows (and hence have a more certain illiquidity premium) and those for where the cashflows can be subject to management actions.</p> <p>The buckets should be related to products with the same degree of predictability of cash flows.</p>	
	Q23.2 Section 4.1.4.4	If "yes" to Q23, what is an appropriate number of buckets?
Answer	<p>Three - Products with little or no ability for the policyholder to vary the contract; Products that can be varied but with financial penalties; and those where significant variations can be made with no penalty or charge.</p> <p>The first bucket could include non-life long-tail claims reserves. The most subjective element is probably what products which have optionality qualify for the middle bucket and one relatively simple approach would be to require a maximum (average) level of projected lapse/option take ups</p>	
	Q23.3 Section 4.1.4.4	If "yes" to Q23, what should be the application ratios associated with each bucket?
Answer	This should be related to the degree of certainty / predictability of cash flows.	
	Q23.4 Section 4.1.4.4	If "no" to Q23, as an alternative to a criterion for predictability of insurance liabilities, could partial risk transfer to policyholders (eg market value adjusted products) be a criterion for determining the credit spread adjustment?
Answer		
	Q24 Section 4.1.4.4	Does the ability of IAIGs to earn credit spreads above the risk-free interest rates in a risk-free manner depend on the IAIGs' ability to match liability cash-flows with asset cash-flows? Please explain.
Answer	Yes	
Answer Comment	<p>Yes, the ability of IAIGs to hold assets to maturity is linked to the long term predictable cash flows associated with certain liabilities - as mentioned above there are products where there is some policyholder optionality but these may be at such a level that the overall impact on the portfolio cash flows isn't significant.</p>	
	Q25 Section 4.1.4.4	What level of granularity is more appropriate for the calculation of the credit spread adjustment? Please justify your answer.
Answer		

Q26 Section 4.1.4.4 In the absence of requirements concerning asset-liability matching and ring-fencing, should supervisors require the proposed allocation be demonstrated and maintained throughout the lifetime of the corresponding insurance liabilities? Please explain and if “yes”, how could this be achieved?

Answer Yes

Answer Comment It is reasonable to assume that ALM should be maintained. There are assumptions (such as mortality) that will need to be reassessed. These, together with re-assessment of the quality of assets over time will mean that the portfolio will need to be re-balanced from time to time. This can be seen and assessed through either the review of the ORSA or other reports on ALM that might be provided to the regulators.

Q27 Section 4.1.4.4 Is the proposed approach for calculating the adjustments for default reasonable? If “no”, please explain how it could be improved.

Answer No

Answer Comment The key point here is that some estimates put the change in actual default risk to be about 10-20% of the total change in credit spreads. The rest is market sentiment reflecting the risk of being forced to try and sell in the current market. For insurance liabilities with long term obligations which do not need to meet liquidity calls during the time prior to their payoff, this market sentiment factor is not relevant to the valuation. Thus, setting the long term assumptions for default spreads should be done using a similar methodology used for setting other long term assumptions such as mortality. The market sentiment needs to be treated equally on both the asset and liability side of the balance sheet.

Q28 Section 4.1.4.4 Should the IAIS consider introducing an adjustment to the LTFR? If “yes”, what would be the technical rationale for an adjustment to the LTFR and which methodologies should the IAIS explore?

Answer Yes

Answer Comment As stated earlier, the LTFR should include a credit spread. It should be comparable to the credit spreads in the observable portion of the yield curve. A reasonable approach might be to simply extend the credit spread from the long end of the observed curve indefinitely into the future.

Q29 Section 4.1.4.4 Is there a way to avoid or mitigate the issue of “inverted risk profile” (as described in Section 4.1.4.4)? If “yes”, please explain.

Answer Yes

Answer Comment Insurer ALM positions are of vital importance here. For such risks an insurer at any given moment may well own assets with a duration shorter than that of the liabilities. This exposes the insurer to reinvestment risk. Such risk should be provided for in the balance sheet on a MAV basis, whether in the liabilities, capital or some combination. Once this risk is provided for there is no reason why the liability cash flows should not be discounted for their entire term using the concepts outlined for discounting – including a prudent trend to the LFTR and even a credit spread.

Q30 Section 4.1.4.4 Is the move to an adjustment defined as an absolute change (in bps) to the base yield curve appropriate, rather than a proportional movement? Please explain.

Answer Yes

Answer Comment This is an important consideration for long term contracts. We recommend the adjusted yield curve use a top-down approach where the discount rate is the expected total return less a fixed or stable (rather than proportional) spread reduction. So the spread should be fixed, but it should also be top-down rather than bottom-up. This allows the spread reduction (as it is a long term estimate) to be stable like other long term estimates and not change on every valuation date based on current market spreads. Changes in the spread between projected earnings and the discount rate, like those resulting from a proportional approach, add volatility to the MAV measurement of net worth for companies with long

term contracts. which volatility is very hard to interpret in a meaningful manner. Making the spread stable will go a long way to reduce volatility of net worth in the MAV approach.

Q31 Section 4.1.4.5 Which of the proposed options strikes a better balance between the different policy issues under consideration by the IAIS? Please explain.

Answer

We view that it is important the ICS liability discount rate approach align with that in IFRS 17.
We view that Ref #3 is closest to IFRS 17 as it determines an adjusted spread using the insurer's own representative portfolio. However, the spread adjustment by liquidity bucket seems arbitrary and punitive.
However, implementing Ref #3 is operationally challenging as it requires many data points and calculations to determine the discount curve. Though the theoretical concept of RM3 is sound, it's recommended to simplify the approach. For example, perhaps we can leverage the methodology in Option #2, where we use insurer observed corporate bond spread coupled with insurer specific weighting of assets to determine the adjusted spread.

Q31.1 Section 4.1.4.5 Could the chosen option be modified to make it even more appropriate? If "yes", please provide details of the suggested modifications to the chosen option.

Answer

Q32 Section 4.1.5 Are there any further comments on MAV that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Answer

Yes

Answer Comment

The final language for IFRS 17 is expected early in 2017. As this represents a decades long effort to coordinate many interdependent insurance accounting issues, it will be difficult to take apart IFRS 17 and choose specific pieces only for ICS purposes. For example, contract boundary includes the concept of onerous contracts, which depends on the definition of risk margin, discount rate, best estimate and a portfolio. Also, it will be difficult for the IAIS to implement ICS 1.0 using IFRS 17 in advance of the companies implementing IFRS 17 for their day-to-day accounting.
That being said, there is a clear sense that IAA members prefer the best estimate equals current value paradigm, and that this is clearly facilitated if the discount rate used by the IAIS is the same as IFRS 17 (We also note that many Europeans believe that the SII discount rate will be acceptable under IFRS 17).
We recognize two challenges though. Par is a challenge because the statutory and legal frame works have small but important differences around the world. And the IFRS 17 line in the sand is not supported by all jurisdictions.
Having ICS 1.0 move towards IFRS 17 (in the sense that, for example, IFRS 4 permitted changes towards using current assumptions, but not away from) may be a reasonable goal. In addition, a more simplified approach than that proposed may be appropriate for non-life, in recognition of the proportionality principle.

Q33 Section 4.2.5 The AOCI adjustment is proposed to only apply to unrealised gains and losses related to debt securities backing long-term liabilities where it is more likely than not that the unrealised gains and losses would not be realised. Is this an appropriate way to segregate non-economic volatility from the fair value measurement of investments in debt securities? If "no", what alternative would you propose, and why?

Answer

No

Answer Comment

As we understand it, for GAAP+, the goal is to put both assets and liabilities on a comparable basis, easily built from audited statements. This method would allow for both locked in amortized cost bases and/or realistic investment earnings and assumptions to be used. The use of an AOCI adjustment means that market changes in credit spreads do not directly affect the results. Under GAAP+ asset values are adjusted from GAAP by removing the AOCI mark-to-market adjustment from the balance sheet. That is a move towards amortized cost valuation. Under GAAP+ the liabilities are then discounted at the rate used in GAAP loss recognition. For assets currently on the books this is the book yield

on the assets (less basis points for expected expenses and defaults), not the current market rate of interest. The result is a liability valuation that is not an estimate of market value – it is connected with the book yield on assets and can therefore be characterized as an amortized cost valuation.

The GAAP+ approach based on loss recognition provides a liability value that is smaller than US GAAP because there is no margin in GAAP+ while US GAAP often includes provisions for adverse deviations. There is no top-down spread in the discount rate because in GAAP loss recognition there are no margins (as you are using your actual asset yields on a best estimate basis). Therefore it is important to add a MOCE for market, credit and insurance risk to the liability in a GAAP+ approach. This contrasts with the IAIS MAV approaches where the market and credit risk MOCE may already be implicitly provided by disallowing some of the spread in the discount rate.

If GAAP+ includes a reasonable MOCE, then the resulting measurement of company net worth or surplus should be about the same magnitude as the measurement under the MAV approach. But both the asset and liability numbers will differ because one is on a current market value basis and the other is on amortized cost. Within each approach the assets and liabilities are valued consistently. However, the following caveats may need to be addressed outside of the ICS valuation basis. They include: 1. The assumption that the assets and liabilities are duration matched. The degree of duration (and/or convexity) mismatch should be able to be found/addressed in the ORSA documents to see if this is a material issue: if a mismatch is identified its impact on the appropriateness of the ICS requirement may need to be assessed. 2. Duration matching may have three competing objectives. The ORSA or some other reporting mechanism should be able to identify and document the relative priority given to weighting statutory vs. economic vs. reported earnings surplus. 3. The ability to assess the risk/exposure to options and guarantees embedded in the insurance contracts.

Q34 Section 4.2.5 Are there any refinements that should be made to identify assets backing long-term liabilities for purposes of the AOCI adjustment? For example, would a bucketing approach similar to that proposed for assets under MAV discounting option 3 (based on liquidity characteristics of the liabilities) be an appropriate way to identify assets backing long-term liabilities? Please explain.

Answer

Q35 Section 4.2.5 Is the “more likely than not” criterion to exclude certain unrealised gain/losses an appropriate element of the AOCI adjustment calculation? Please explain.

Answer

No

Answer Comment

The question of whether the gains will or will not be realized seems not to be a good indicator for the application of the adjustment. The basic economic issue is more whether the assets concerned would change in value if brought back to an amortized basis consistent with the liabilities, and if so, what amounts of the assets need to be adjusted. It may be necessary to solve for an amount of assets which, if brought back to the consistent basis, would cover the relevant liabilities.

Q35.1 Section 4.2.5 Is this an appropriate way to segregate assets where unrealised gain/loss is more likely than not to be realised? If “no” what alternative would you propose and why?

Answer

Q36 Section 4.2.5 Are there specific asset classes that should be included in the “more likely than not” category? If “yes”, please explain.

Answer

Q37 Section 4.2.5 Is a default risk adjustment appropriate? Please explain.

Answer

Yes

Answer Comment The answer may vary by jurisdiction and by what decisions are reached on the MOCE. For example, per the 2016 Field Testing technical specifications, "...for the C-GAAP Plus, the CALM base scenario liability (without margins) plus the margin for asset default (C1) should be used as the basis to adjust life insurance liabilities under GAAP Plus. The C1 margin should be added to the CALM base scenario liability (without margins) to reflect the fact that when higher yielding assets are used to support liabilities, at least part of the extra yield is to compensate for losses in asset values including defaults, and will not ultimately be realised..." The CALM base scenario liability includes expected asset default assumptions; hence the extra yields from riskier assets have been adjusted. If the CC MOCE is added on top of GAAP Plus liability, default adjustment is not required for C-GAAP Plus.

Q38 Section 4.2.5 A possible method for calculating the default risk adjustment is to reference the credit rating at purchase (or previous write down) as compared to the current rating. The change in rating can be used to determine the portion of the credit spread related to default risk. Is this an appropriate method to estimate the unrealised loss related to default risk? Please explain. If "no", please suggest an alternative method that could be used to calculate the default risk spread.

Answer Yes

Answer Comment This seems workable at a basic level, but the definition could be improved. Some unreliability might stem from how various credit spreads widen between ratings. The definition should preferably address which spread should be used to estimate the impact - current spreads or an average or conservative average of historical spreads between ratings? Another alternative is to use an historical average of expected defaults and then, depending on how and if the MOCE relates to reserves and capital, some degree of conservatism could be included (as in one or two standard deviations above the historical average) in the default risk adjustment.

Q39 Section 4.2.5 It has been suggested by some Volunteer IAIGs that the default risk spread could be highly volatile in certain periods of stress. Are there methods to evaluate this volatility over historically relevant periods, and is appropriate data available to do so? Please explain.

Answer Yes

Answer Comment One can evaluate volatility over historical periods to "lock down" the volatility to a longer term mean. There is no "right" answer as to the appropriate period, but, as suggested in our response to Q38, there is data to support this for the vast majority of insurer held fixed income instruments.

Q40 Section 4.2.5 Do the GAAP Plus principles and guidelines constitute a sufficient basis for the specification of an ICS Valuation Approach that fulfils the ICS Principles as defined by the IAIS? Please explain.

Answer Yes

Answer Comment What is needed is guidance for which ICS principles carry more weight than the other principles. When practical simplifications and options are being considered at the next level down within the GAAP Plus framework, there will likely be some compromise needed with one or more of the stated principle For example, while Principle 5 says to achieve "comparability across jurisdictions", Principle 6 wants an "explicit recognition of appropriate and effective risk mitigation techniques". Requiring the same calculation in order to meet Principle 5 may mean that country or product specific differences that require different risk mitigation techniques are not appropriately calculated.

Q41 Section 4.2.5 Are there any internal inconsistencies in the GAAP Plus jurisdictional examples as outlined in the 2016 Field Testing Technical Specifications, or any area which is not aligned with the stated GAAP Plus principles and guidelines? If "yes", please explain what you would propose to amend in the examples.

Answer

Q42 Section 4.2.5 Under GAAP Plus there are differences between jurisdictions in the approach to valuing assets. Should all assets be valued under the same approach (whether that be fair value or a mix of cost and fair value) for all jurisdictions? Please explain.

Answer Yes

Answer Comment As we discussed in Q33, under GAAP+ the liabilities are discounted at the rate used in GAAP loss recognition. Therefore, if there are some differences in asset valuation between jurisdictions, there would be a similar difference for the GAAP+ liabilities in each country. Therefore the preference would be to allow assets to be valued in a manner consistent with their reporting basis.

Q43 Section 4.2.5 Under GAAP Plus there are differences between jurisdictions in the approach to valuing liabilities. Should all liabilities be valued under the same approach whether that be closer to book value or market value for all jurisdictions? Please explain.

Answer Yes

Answer Comment The field testing may be the best place to uncover this. If, as is currently stated, the ICS is meant to be a directional, approximate indicator then the divergences in valuation may not be material to the end users of the ICS. If the ICS ends up being a regulatory trigger for actions taken by regulators to direct the company, then this issue will need further scrutiny. In general, as we stated in the answer to C33 and Q42, if the consistent relationship between asset earnings and discount rates are maintained then either approach will give comparable results. However, the one important exception here may be before the discounting (or non-discounting) of non-life claim reserves. We do recommend that the same approach be used here for all jurisdictions. In addition, the choice to discount or not discount impacts the MOCE and capital determinations.

Q44 Section 4.2.5 Are there any refinements that could be made to lead to a more comparable valuation outcome for insurance liabilities between jurisdictions? Please explain.

Answer No

Q45 Section 4.2.5 A method for aggregating financial data for U.S. Statutory only filers has been developed for GAAP Plus (see section 7.3.2 of the 2016 Field Testing Technical Specifications). Does this method capture all material elements such that the resulting aggregated financial statements would be materially equivalent to U.S. GAAP consolidated statements? If "no", please provide details of other elements or adjustments that could address any material differences.

Answer

Q46 Section 4.2.5 Is there a way to evaluate the impacts of these proposed accounting standards on the ICS, and more specifically on GAAP Plus, in the absence of current data and prior to the implementation of the rules? Please explain.

Answer

Q47 Section 4.2.6 Are there any further comments on GAAP Plus that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Answer No

Q48 Section 4.3.5 With respect to the CC MOCE calculations (both prudence and cost of capital approaches), are there any particular issues with the way that GAAP Plus liabilities are calculated that would necessitate a difference in the calculation of a CC MOCE under GAAP Plus from the CC MOCE under MAV? If "yes", please explain.

Answer Yes

Answer Comment The important question here is how the CC MOCE is to be coordinated with the other elements of the ICS. Based on those considerations there may be a need for a different calculation and/or integration of the calculation with other elements such as taxes (and the accompanying classification as a reserve or a capital add on), discount rates, diversification decisions and the priority/focus on cash needs for a runoff situation vs. the need to recapitalize to stay a going concern. We elaborate more on this in Question 66.

Q49 Section 4.3.5.1 *Margin observed in actual market transactions* - Based on your experience or any data analysis, are you able to observe or estimate the value of market transactions of insurance liabilities in comparison with the current estimate as defined in the MAV? If "yes", what value do you observe or estimate related to the current estimates (to be differentiated by type of liabilities, if appropriate). Please provide evidence or references to support the response.

Answer No

Q50 Section 4.3.5.1 *Cost of capital parameter* - Should the hurdle cost of capital parameter be:

Answer Fixed? If "yes", how should it be determined?

Answer Comment Feedback from our members familiar with CoC assumptions used in the sale of blocks of life/annuity business in Canada, Australia and Hong Kong indicates that the CoC assumption used in recent transactions is consistent with the ICS suggested use of 5%. The IAA notes that different CoC assumptions are also being used in various areas. Examples include (1) the valuation of P&C claim liabilities for purchase accounting, (2) goodwill impairment testing required under some versions of GAAP, (3) some sale/purchase evaluations performed in the U.S. While some of our members support the proposed 5%, indicative of the approximative aspect of this concept, the choice of a different cost of capital rate is certainly justifiable and reflected in actual practice. The linked approach could potentially be used. It could be equal to the investment return expected by a shareholder minus the after tax long term bond rate. The problem with this approach is that it could lead to lack of consistency and comparability, and would bring volatility to the results (liability amount and hence the capital resources). Once the rate is chosen, while there is not a need to mirror/track market risks through a cycle (i.e. pegged to economic indices) it would be appropriate to reflect regime changes (such as post 2008) in resetting the CoC rate as the cost for insurance risk is more stable over time than is the cost of market risk.

Q51 Section 4.3.5.1 *Projection of capital requirement* - Are the risks to be included in the projected capital requirement appropriate? If "no", please explain which risks should be excluded/added and why.

Answer Yes

Q52 Section 4.3.5.1 *Projection of capital requirement* - Is the calculation of the global projected capital requirement appropriate? If "no", please suggest amendment(s) with supporting rationale.

Answer Yes

Q53 Section 4.3.5.1 *Projection of capital requirement* - Is the approach to project the future capital requirements as part of the standard method appropriate considering the trade-off between accuracy/risk sensitivity and simplicity (eg outgoing cash flows excluding maturity benefit for Mortality risk or sums a risk)? If "no", please suggest and justify any proposed amendment.

Answer Yes

Q54 Section 4.3.5.1 *Projection of capital requirement* - Is an IAIG's ICS capital requirement (99.5% one-year VaR) the appropriate amount of capital on which to base the CoC MOCE? If "no", please provide an alternative suggestion with rationale.

Answer No

Answer Comment	Considered in isolation for the other elements of the ICS framework, the answer is no. Yes would be the answer if well integrated with the other provisions of ICS.
	Q55 Section 4.3.5.1 <i>Projection of capital requirement</i> - Should the projected future capital requirements reflect minimal, average, or optimal diversification benefits (considering a willing buyer which is likely to achieve a conceivable synergy from the transaction)? If "yes", how can the diversification benefit be reflected in the CoC MOCE calculation?
Answer	Yes
Answer Comment	<p>The projected future capital requirements should reflect optimal diversification benefits (considering a willing buyer is very likely to achieve a conceivable synergy from the transaction). In most cases, the best overall price resulting from the sale of a large insurer or an insurance group is achieved through the separate sale of its various businesses to buyers who can offer the best price for one or more businesses. It is rare that the best sale price can be secured through a single buyer. The MOCE should provide for the optimal (sometime will be marginal amount) amount of capital needed for this block of business to be purchased by a third party. (i.e. assume additional capital requirements will be at a marginal level).</p> <p>In addition, because of the typically longer term nature of the liabilities, the MOCE may not need to reflect fire sale risk premiums. Another way to think of this is that in addition to the diversification benefit across multiple risks at a single point in time, there is also a diversification benefit as each of those risks occur over time at multiple points in the future due to the often illiquid nature of the liabilities</p>
	Q56 Section 4.3.5.1 <i>Discount factor</i> - If Market risks and most of the Credit risk are excluded from the projection of the future capital requirements as per the 2016 Field Testing Technical Specifications, does this imply that such MOCE only allows a recapitalisation where no Market risk and only limited Credit risk could be supported (ie with not enough resources to take on market risks)? If "no", please explain.
Answer	No
Answer Comment	<p>It depends on what is used for discounting. If one allows more spread for discounting then more capital for C-1 and C-3 might be needed. One must take into consideration the relationship between the MOCE and the discounting used in the calculation of the current estimate.</p> <p>The CoC MOCE makes the (perhaps) optimistic, assumption that market and credit risks are largely hedgeable and therefore there is no need for a CoC MOCE for these risks, especially if risk free rates are used for discounting the insurance liabilities. If this approach to MOCE is maintained the capital requirement (and discounting approach as noted above) for market and credit risks must be carefully designed and calibrated to capture the ALM risks arising from mismatched portfolios, the risks (and margins) arising from participating (with profits) business and the non-diversifiable market risks associated with variable annuities with guarantees.</p>
	Q57 Section 4.3.5.1 <i>Discount factor</i> - If no Market risk and only limited Credit risk could be supported by the level of recapitalisation allowed by the level of MOCE, then should the future return from invested assets free of Market risk and Credit risk be the risk free rate? If "no", please explain.
Answer	No
Answer Comment	The total spread includes an illiquidity premium. If the intent is to deduct credit and market spreads, it still leaves some illiquidity spreads. The cost of credit implied in observed credit spreads reflects the cost of holding credit in a liquid market. Since many bonds can be and are held to maturity, the more relevant measure of credit exposure may be some level of standard deviations of losses above an average expected cost of default since those are the cash needs that need to be considered.
	Q58 Section 4.3.5.1 <i>Discount factor</i> - Assuming that the answers to the two questions above are "yes" then is it consistent to discount the projected future capital requirement by the risk free rate? If "no", please provide an alternative suggestion with rationale.

Answer	No
Answer Comment	The total spread includes an illiquidity premium. If the intent is to deduct credit and market spreads, it still leaves some illiquidity spreads. Also, see answer to Q57.
<p>Q59 Section 4.3.5.1 <i>Discount factor</i> - Should the discount factor be linked in some way to the hurdle rate (cost of capital parameter)? If "yes", please provide an alternative suggestion to discounting at risk free rate and the rationale.</p>	
Answer	No
<p>Q60 Section 4.3.5.1 <i>Interaction with capital resources and capital requirement</i> - Should the CoC MOCE be part of the valuation of insurance liabilities and not included in capital resources? If "no", please explain.</p>	
Answer	No
Answer Comment	See answer to Q66.
<p>Q61 Section 4.3.5.1 <i>Interaction with capital resources and capital requirement</i> - Is holding the CoC MOCE, in addition to a 99.5% VaR calibrated capital requirement, a condition to ensure that the IAIG remains prudentially viable with a 99.5% probability (by providing the cost to serve a level of capital meeting the supervisory capital requirement)? If "no", please explain.</p>	
Answer	No
Answer Comment	But also consider our response in Q66. And also remember that the above statement is true by definition if one assumes that viability at 99.5% is correctly measured by a 99.5% VaR. At best it is a close approximation, but ignores the impact of fat tails and that some failure may occur for risks for which capital does not apply (moral hazard) or for which it may inherently not be sufficient as for a major operational risk issue.
<p>Q62 Section 4.3.5.1 <i>Interaction with capital resources and capital requirement</i> - If CoC MOCE is targeted to a level of prudential viability, is the current definition of capital resources appropriate? If "no", please explain, including details of what level of prudential viability should be maintained, and whether other forms of capital resources should be considered for that purpose.</p>	
Answer	No
Answer Comment	See answers in Q66 for a way to discern if other resources could/should be considered.
<p>Q63 Section 4.3.5.1 <i>Interaction with capital resources and capital requirement</i> - Is there any double counting between the CoC MOCE and the capital requirement? Please explain.</p>	
Answer	No
<p>Q64 Section 4.3.5.2 Should the P-MOCE be loss absorbing? Please explain and if "yes", elaborate on the circumstance(s) in which this loss absorption may occur.</p>	
Answer	No
Answer Comment	We understand P-MOCE is meant to allow for the runoff and fulfillment of an existing block of business. Like capital and reserves, it then functions as a loss absorbing resource. In addition one needs to consider the tax implications for a run off purposed MOCE (as part of a reserve) versus a going concern basis as part of capital. See our comments to Question 66. We also expect that those regimes which currently use a P-MOCE will provide more in-depth comments on this topic.
<p>Q65 Section 4.3.5.2 Should the P-MOCE be stressed along with other balance sheet items in the calculation of the ICS capital requirement? Please explain.</p>	

Answer	No
Answer Comment	While in principle this could be considered consistent with the terminal provision concept, we feel that the exercise is not worthwhile as it only adds spurious accuracy.
<p>Q66 Section 4.3.6 Are there any further comments on MOCE that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.</p>	
Answer	Yes
Answer Comment	<p>Some of the points raised here will not be resolved in ICS 1.0, but will certainly need to be resolved in 2.0 with the advantage of further field testing.</p> <p>The IAA has long supported the concept that an insurer should maintain sufficient capital in addition to its current estimate obligations to provide for a one-year shock at a high confidence level as well as additional funds post shock to allow the business of a failing insurer to be passed along to a succeeding insurer (i.e., see “Global Framework for Insurer Solvency Assessment”, IAA 2004, paragraphs 2.16-2.18). Translating that concept into a workable valuation framework, however, has to be done in a manner consistent with the underlying assumptions and purpose of the valuation framework. The CD has been very helpful in identifying and working through these issues. We share our progress on this in these next two thematic sections:</p> <p>CoC MOCE vs. P MOCE 1. The CoC MOCE requires that after a (1 in 200 say) event there will be sufficient assets to cover on a going concern Current Estimates plus a Margin in order to enable the company to recapitalize and pass the liabilities to a third party. The Prudence MOCE suggests that after an event there will still be sufficient assets to run off the current estimate liabilities and so there will be enough assets to cover the CE but not necessarily the regulatory/transfer margin. The CoC MOCE thus has two loss absorbing layers, whereas the P MOCE has one layer which can be thought of as a margin which (together with capital) is targeting, say, a 99.5 one year VaR. The more margin there is, the lesser the capital requirement and vice versa. 2. Thus, an alternative framework could be built for a P MOCE since all risk margins run off. They may seem stable over time, but only because any amortization of the beginning margin is replaced by the establishment of a new margin on new business. The runoff does create profit and that profit embedded in a beginning balance sheet is not connected to an initial conservatism or margin established for new business that may or may not exist. Under this approach, it is invalid to tie the two of them together. Thus, one would not have to set up a Deferred tax item for a risk margin, but could/should treat it as expected profit in a cash flow projection. There is no cash flow resulting from risk margin runoff other than the income tax liability. Here, if the runoff of margin is not used to cover adverse insurance liability development then it is readily available to cover other bad news. 3. While the P-MOCE is intended to be a simple calculation-based alternative, there are many details based on different lines and practices by company and region (e.g., differing timing recognition of expenses for lines of business such as Boiler and Machinery versus Personal Auto) that could cause unintended variation by company, and thus potentially render this method less reliable in practice for some general insurance products.</p> <p>CoC MOCE Discussion The IAA also recognizes the need for the valuation of insurance obligations for supervisory purposes to include a MOCE in addition to the current estimate. While the IAIS has formed a view on its needs for a MOCE as part of a solvency framework, we also note that the IASB is developing through IFRS 17 its own views on a “MOCE” for public reporting purposes. The focus of IAA comments on the CD is primarily on the soundness of the composite of the ICS MOCE and capital requirements, taken together (i.e., total balance sheet focus), rather than on the “correctness” of the MOCE by itself.</p> <p>We have focused our assessment of the MOCE based on a “pre-tax” ICS framework. There are many difficult complications that impact the MOCE if the ICS desires an after tax framework that will need careful attention (There is also an interaction between this discussion and the approaches to calibrating the capital charge itself. Ignoring a tax adjustment for capital is consistent with, for example, a calibration using VAR measure versus current estimate, then subtracting an estimate of average MOCE. If, however, the capital calculation is an amount on top of MOCE, then it seems to make more sense to give the IAIG the benefit of a tax offset to the MOCE. The issue with taxes is that a release of a risk margin is a profit item and hence taxable – in principle. However, tax rules differ all over the world and even with an ICS, jurisdictions will differ on what they allow or do not allow in their insurance provision requirements for tax purposes.).</p> <p>Several of the CD questions seem to seek concurrence that the MOCE not include provision for market and credit risks along with a presumption that discounting at risk free rates helps to achieve a “correct” answer.</p>

With respect to market risk, the IAA notes that some insurance markets (e.g. for some North American life insurance products) can be exposed to obligations much longer than the assets held and/or are available. This exposure to future reinvestment risk (absent its presence in the MOCE) could be provided for in a capital requirement for interest rate risk at a specified confidence level. If some level of mismatch or ALM risk is to be provided for via a MOCE derived (in part) from the use of conservatism in the valuation discount rate, then the composite provision, including the ICS capital requirement would need appropriate calibration.

As noted elsewhere in this IAA response, the CD does not adequately deal with the distinctive issues surrounding par products with material dividends. The ICS needs to clarify how the valuation (and MOCE) of par products is to be handled given that these products are adjustable. The IAA commends the work done in Canada by OSFI in conjunction with its industry on this topic as part of its new life insurance capital requirements (LICAT).

Another source of material market risk are products which contain substantive market options available to the policyholder. Examples of these options are settlement option guarantees and those present in variable annuities with equity guarantees. The "in the money" position of such guarantees can become solvency threatening if not properly priced, designed and hedged. The fact that most hedging instruments are short term contracts and the underlying risks can be long term and non-diversifiable adds additional complexity to the issue. If no provision for this risk is provided in the MOCE then the capital requirement must be calibrated appropriately.

Under IFRS the "risk margin" or MOCE is a provision for insurance risks only, not investment risks. Obviously a MOCE for investment risks needs to be provided somewhere, and it is important to understand where it arises in any valuation framework. In both IFRS and ICS, the MOCE for investment risks arises implicitly because the discount rate is less than the total expected return on the invested assets. This difference between the expected return and the discount rate is equivalent to an implicit cost-of-capital MOCE for investment risks where the cost-of-capital is the spread between the total expected return and the discount rate.

This is important in the GAAP+ framework for ICS because the discount rate there is that used in loss-recognition testing, which is the total expected return on assets. In that framework, the implicit MOCE for investment risks is missing and needs to be added explicitly.

IFRS allows the company to determine the spread between the discount rate and the total expected return on assets based on the characteristics of its insurance contracts. ICS specifies the same rate for everyone. We recognize that for fixed payment streams using the same set of discount rates for all cash flows is a universally accepted principle; however, there are several issues with this when applied to insurance: a) The same spread is not appropriate for everyone because the risk-sharing or participating provisions in contracts differ between insurers. b) We understand the IFRS determined spread to be a long term assumption that will not fluctuate based on current market spreads if those spreads are expected to be mean-reverting over time and experience is managed through participation over time. c) As a minor issue, even for non-participating contracts, the appropriate size of the spread is debatable and will thus have some inherent bias. d) The market consistent discount rates are most appropriate for valuing "today's" desired transactions. In the event of a mandated insurance transfer of business, the regulator has a longer time horizon and the buyer recognizes that it is not buying a liquid investment, but one that will be managed over a long time horizon. Also, the assets currently being used to manage the business will be transferred along with the liabilities. Lastly, whether the policyholder should expect only a guarantee or a reasonable continuation of dividends/bonuses after the transfer is key to setting the desired ultimate regulatory calibration here.

IFRS allows a top-down method to arrive at the discount rate. The top-down spread is to be based on the characteristics of the contracts. Contracts that are participating and pass some investment risk to the policyholder through participation can use a smaller deduction because the company retains less risk, and this means a higher discount rate. On the other hand, one might argue that all contracts should use a discount rate consistent with no participation. In this case, valuation can still be appropriate if the projected dividends or other participation credits are reduced from the actually anticipated level to a level consistent with the level of the discount rate.

The top-down discount rate spread has the same effect on liability valuation as an additional cash flow equal to the cost of capital for investment risks. The cost of capital is a long-term assumption for the remaining life of the contracts, and should not change any more often than other long-term assumptions. In particular, changing the assumption on each valuation date based on current market spreads is similar to changing a mortality assumption on every valuation date to be equal to mortality experience for the most recent single period. This is simply not appropriate, and no one is arguing for doing so in the case

of mortality. The argument for stability in the top-down discount rate spread is the same. The ICS approach of basing the spread on the current market on the valuation date adds inappropriate volatility to the valuation of net worth (assets less liabilities) because it amounts to changing a long term assumption on every valuation date based on current observations that no one expects to remain constant or stable over the long term.

Since the top-down discount rate spread is mathematically equivalent to a cost-of-capital MOCE for investment risks, it is reasonable to calibrate it based on the cost-of-capital for such risks in the context of insurance companies. This is the scientific approach – base the assumption on observation rather than on a theory that is not supported by observation. Those that argue for a “risk-free” rate as the basis of the discount rate are arguing for a top-down spread much larger than would be supported by observation of the cost of capital. The top-down spread represents the cost of the risk to the insurer. That is less than the cost of the risk to an individual; otherwise there would be no financial logic for insurers, mutual funds, and other financial institutions to exist. Financial institutions exist because the value of risk to an individual is greater than the value of the risk to an institution that can combine risks and manage them in a way that reduces the total risk below the sum of the parts. This simple idea seems lost on those that have argued for a “risk-free” rate as the basis of the discount rate for valuation of financial institution liabilities. That is why Solvency II and other frameworks are being revised to allow for some recognition of this effect, under various terms such as a “matching adjustment” or a “liquidity adjustment”. The ICS framework needs to recognize this as well, and the IFRS framework already does so.

Q67 Section 4.4 Should all reinsurance contracts be identified using a consistent definition across all jurisdictions? If “yes”, please propose a definition.

Answer

Yes

Answer Comment

Whether a reinsurance contract counts as risk transfer or no risk transfer under the rules of US GAAP, IFRS or any other accounting basis is irrelevant when it comes to deciding necessary capital. In general, if reinsurance is providing “effective risk mitigation” in times of crisis then it should be allowed for even if it does not meet the strict rules for insurance accounting.

Q68 Section 4.4 Considering proportionality and the desire for pragmatism, would it be appropriate to limit a consistent approach across jurisdictions to only certain types of reinsurance contracts? If “yes”, what kind of contracts? Please explain.

Answer

No

Q69 Section 4.4.1 Are there any further comments on reinsurance recognition that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

No

Q70 Section 5.3.1 Should Tier 1 Limited financial instruments be required to have a principal loss absorbency mechanism?

Answer

Yes

Q70.1 Section 5.3.1 If “no” to Q70, should the principal be considered to provide loss absorbency on a going concern basis? Please explain how the instrument demonstrates loss absorbency on a going concern basis.

Answer

Q71 Section 5.3.2 Is there an objective methodology that the IAIS could use to determine the amount of financial instruments issued by consolidated subsidiaries of the IAIG and held by third parties that is not available to the group for the protection of policyholders of the IAIG? Please explain.

Answer

Yes

Answer Comment	Consider reducing the diversification credit (potentially to zero) in the calculation of required capital instead of reducing the amount of available capital.
	Q72 Section 5.3.3 Is there an objective methodology that the IAIS could use to determine the amount that should be added back to Tier 2 for those items deducted from Tier 1? Please explain.
Answer	Yes
Answer Comment	Any objective methodology will have subjective decisions built into the method. with the subjectivity greatest under stressed conditions. A separate limit by bucket sounds reasonable. For example, DTA could be discounted (i.e. adjusted for the time value of money) and could then be limited to 50% of that value. Software could be limited to a very low percentage (10%?). Pension assets could consider 100% of the excess over wind up valuation value.
	Q73 Section 5.3.4 Is structural subordination sufficient to guarantee that policyholders will be paid first in a winding up? Please explain.
Answer	No
Answer Comment	To the extent that the parent is an insurance company as well, it would protect the policyholders of the sub, but not those of the parent.
	Q74 Section 5.3.4 Does structural subordination produce the same outcomes as legal or contractual subordination? Please explain.
Answer	
	Q75 Section 5.3.5 Is a requirement for supervisory approval prior to the redemption of a financial instrument at contractual maturity sufficient for that instrument to be considered perpetual? Please explain.
Answer	
	Q76 Section 5.3.5 Is a requirement for supervisory approval of distributions prior to contractual maturity (eg interest payments, dividends) sufficient for the distributions to be considered non-cumulative? Please explain.
Answer	
	Q77 Section 5.3.5 Do existing financial instruments issued by mutual IAIGs (for example, but not limited to surplus notes, Kikin and other forms of subordinated financial instruments) absorb losses on a going concern basis? Please identify which instrument and explain.
Answer	
	Q78 Section 5.3.5 Should the Tier 1 criteria (unlimited or limited) be changed in some way to better classify the financial instruments of mutual IAIGs? Please explain.
Answer	
	Q79 Section 5.3.5 What would prevent mutual IAIGs from issuing other financial instruments that meet the qualifying criteria for Tier 1 capital resources as set out in the 2016 Field Testing Technical Specifications? Please explain.
Answer	
	Q80 Section 5.3.6 Should non-paid-up items be included in ICS qualifying capital resources? Please explain.
Answer	Yes

Answer Comment	We believe that only Tier 2 instruments which have strong contractual safeguards should qualify as qualifying capital resources. We agree with the need for a high level of confidence that the money will be there when needed.
	Q80.1 Section 5.3.6 If "yes" to Q80, do the qualifying criteria set out in the 2016 Technical Specifications capture all the requirements that should be applied to the assessment of non-paid up items? Please explain.
Answer	
	Q81 Section 5.3.6 If non-paid-up capital items are permitted, is the capital composition limit proposed in 2016 Technical Specifications appropriate? If "no", how should the limit be set?
Answer	No
Answer Comment	Please refer to answer to Q72.
	Q82 Section 5.3.7 What theoretical basis could the IAIS use to determine appropriate capital composition limits?
Answer	No comments.
	Q83 Section 5.3.8 When should prior supervisory approval of the redemption of a financial instrument issued by an IAIG be required?
Answer	Otherwise. Please explain
Answer Comment	Current lock in and 5 year grade-in factors are reasonable.
	Q83.1 Section 5.3.8 Should any other factors (eg lock-in and amortisation) be taken into consideration? Please explain.
Answer	
	Q84 Section 5.3.8 Does a lock-in feature provide the same safeguard as supervisory approval prior to redemption of a financial instrument? Please explain.
Answer	
	Q84.1 Section 5.3.8 If "yes" to Q84, should the ICS qualifying criteria be amended to remove the requirement for prior supervisory approval where a financial instrument possesses a lock-in feature? Please explain.
Answer	
	Q85 Section 5.3.9 Do any of the above AOCI elements provide loss absorbing capacity on a going concern basis? Please provide an explanation as to how the element(s) absorbs losses.
Answer	Yes
Answer Comment	With respect to unrealized gains and losses on fixed income instruments (AFS) in surplus, we believe that they should not be counted as part of Capital Resources. With respect to unrealized gains and losses on non-fixed income instruments (AFS) in surplus, we believe that they should be counted as part of Capital Resources. We believe that the criteria used for net defined benefit pension fund assets seem appropriate and the treatment of the related AOCI amount should be consistent with the treatment of the related asset. With respect to gains and losses resulting from translating the financial statements of foreign subsidiaries, we believe that they should not be counted as part of Capital Resources unless the surplus of the subsidiary is fully fungible. With respect to gains and losses in AOCI related to hedges, in most cases these gains and

losses represent timing differences between the fair value of the liabilities and the accounting value of the liabilities. But, since there are varying ways in which those liabilities are structured and reported, they may or may not be available as Capital Resources.

Q86 Section 5.3.9 Are there any additional elements that are included in AOCI under specific jurisdictional GAAPs that could be considered to be loss absorbing on a going concern basis, and therefore should be included in capital resources? Please explain.

Answer

Q87 Section 5.3.10 Is the definition of insurance liability/reinsurance adjustment offset as described appropriate? Please explain.

Answer

Yes

Answer Comment

The "insurance liability/reinsurance adjustment offset" is one of several adjustments. The others are "Investments Adjustment Offset", "Other Asset Adjustment Offset", "Deferred Tax Adjustment Offset", and "Other Liabilities Adjustment Offset (non-insurance)". These adjustments, in aggregate, represent the difference between assets and liabilities when carrying out the valuation in the GAAP+/MAV valuation approach, while leaving the GAAP equity valuation unchanged. These offsets, in their sum, are therefore a direct consequence of the GAAP+/MAV approach and cannot and should not be avoided. The naturally are a component of equity, since equity is the difference between assets and liabilities. However, as we can tell, the individual adjustments/offsets, including the "insurance liability/reinsurance adjustment offset", are never used for any other purpose, so we do not understand the need to define individual components. The sum (i.e. Investments Adjustment Offset + Other Asset Adjustment Offset + Deferred Tax Adjustment Offset + Other Liabilities Adjustment Offset non-insurance + insurance liability/reinsurance adjustment offset) would suffice.

Q88 Section 5.3.10 Are there any valuation adjustment amounts that should be included or excluded? Please explain.

Answer

No

Answer Comment

See response to Q 87 above.

Q89 Section 5.3.10 Would the inclusion of insurance liability/reinsurance adjustment offset generate significant volatility in capital resources? If "yes", how should the volatility be addressed?

Answer

Yes

Answer Comment

See response to Q 87 above.

Q90 Section 5.4 Are there any further comments on capital resources that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Answer

No

Q91 Section 6.3.4.1 Is the principle of allowing for the effect of risk mitigation techniques in the ICS capital requirement only on the basis of assets and liabilities existing at the reference date of the ICS calculation appropriate? Please explain.

Answer

No

Answer Comment

This needs to be considered in the context of how the liability, MOCE & capital charges are being determined and the time horizon for which they are wanted to be relevant. Decisions made there will impact the appropriateness of the stated principle. 1. For example, if a market value balance sheet is being used with capital determined by some stated shock amount then the principle will give an accurate picture of the level of loss given a change in the current market, but it will not be able to assess how future capital levels will be impacted by changes beyond the current state. This is sometimes referred to as the issue

of pro-cyclicality for market value based capital charges. The capital assessed in periods of low risk will not capture the need to raise/fund additional capital based on the charges for capital that would occur for stresses assessed against a future state. Nor does capital assessed in periods of high risk reflect that capital held for long time horizons will be quickly released when market risks decline. While this is fully appropriate for assessing liquidity, it will not assess the risk of sustainability of market value requirements for longer time horizons. 2. On the other hand, if capital is assessed based on scenario projections consistent with the time horizon of the risks then not allowing the effect of future hedges to be included will yield inaccurate results. This then puts the focus on the nature of the hedges and whether they are exotic or exist within deep and liquid markets. For example, this is also true for traditional ALM strategies focused on the purchase (type and purchase) of future bonds though here the trading horizon often extends over many years as opposed to a daily trading horizon

Q92 Section 6.3.4.1 Should dynamic hedging arrangements be included in the scope of recognised risk mitigation techniques for ICS Version 2.0? Please explain.

Answer Yes

Q92.1 Section 6.3.4.1 If "yes" to Q92, please comment on dynamic hedging programs that should be recognised in the ICS.

Answer ALM bond reinvestment strategies as already recognized in traditional ALM cash flow testing as well as equity hedges using deep and liquid instruments.

Q92.2 Section 6.3.4.1 If "yes" to Q92, please comment on how the principle of allowing for the effect of risk mitigation techniques in the ICS capital requirement only on the basis of assets and liabilities existing at the reference date of the ICS calculation could be amended in a manner appropriate to the ICS and the way it is currently constructed (ie the use of instantaneous shocks for market risk).

Answer As stated above, adding to the principal that the use/recognition of hedges beyond those currently held is needed for a framework not based on market values.

Q92.3 Section 6.3.4.1 If "yes" to Q92, please comment on what criteria should be met to allow the effect of dynamic hedging arrangements to be recognised in the ICS capital requirement.

Answer 1. One could require a documented Clearly Defined Hedging Strategy that is included in the audit procedures as is required in the United States. 2. The need to have deep and liquid market for the future hedge positions 3. Could also stress test the impact if market is closed or not available for x days/weeks

Q93 Section 6.3.4.2 Is the general treatment given for risk-mitigation techniques that are in force for less than the next 12 months appropriate for the ICS standard method? Please explain. If "no", please provide details of a practical alternative that would be appropriate for the ICS standard method.

Answer No

Answer Comment We recommend to add to the end of Paragraph 311 "... relative to the term of the obligation".

Q94 Section 6.3.4.3 Are the criteria for recognising the renewal of Non-life risk mitigation arrangements appropriate for the ICS standard method? Please explain. If "no", please detail which criteria should be amended, including rationale and suggested amended wording.

Answer Yes

Q95 Section 6.3.4.4 With regard to risks arising from the balance sheet as at the reference date, should renewal of risk mitigation arrangements other than those relating to non-life insurance risks also be recognised? Please explain.

Answer	Yes
	Q95.1 Section 6.3.4.4 If "yes" to Q95, please provide specific suggestions for criteria that can be applied to the recognition of such renewals.
Answer	Similar to those already stated for Clearly Defined Hedging Strategies
	Q95.2 Section 6.3.4.4 If "yes" to Q95, please provide specific examples of risk mitigation arrangements that would qualify as such, including details of the risks addressed and the materiality of these arrangements.
Answer	
	Q95.3 Section 6.3.4.4 If "yes" to Q95, please provide suggestions on how the issues such as future availability, future cost and uncertainty of the decision should be addressed.
Answer	Addressed via requirements for a clearly defined hedging strategy
	Q96 Section 6.3.4.5 Should a materiality threshold for basis risk arising from any risk mitigation techniques be defined? If "yes", please provide a detailed suggestion of a definition that would be appropriate for the ICS and your rationale.
Answer	
	Q97 Section 6.3.4.5 Are you aware of organisations that account for basis risk arising from risk mitigation techniques? If "yes", please provide details on how this is done in practice.
Answer	Yes
Answer Comment	The gap in the basis risk of the actual to modeled results is tracked over time (daily and monthly) with active management oversight (including prior determined limits and agreed to actions to rectify). This oversight reviews the strength of the mapping process and how to enhance that strength. For example analyzing the magnitude of the peak to trough of the basis risk gaps is one indicator.
	Q98 Section 6.3.5 Are there any further comments on risk mitigation that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	
	Q99 Section 6.4.1 Are there any comments on look-through that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	
	Q100 Section 6.5.2 Is this extension of the definition of management actions to include limited premium increases for health business appropriate? Please explain.
Answer	Yes
Answer Comment	One health insurance product which is subject to regular review of experience and hence re-pricing is Long Term Care insurance sold in the US. As the underlying contract is subject to considerable health care cost and utilization trends, it is not-realistic for the valuation to not recognize management actions to reflect emerging experience through premium increases. Of course such management action may be subject to various constraints such as competitive pressures and the need for regulatory approvals.
	Q101 Section 6.5.3.1 Are there examples of other instances for which an extension of management actions to allow for the recognition of premium adjustments may be appropriate? Please explain.

Answer	Yes
Answer Comment	There may well be several types of non-participating life insurance products (e.g. Universal Life) for which certain aspects of the premiums or charges levied under the contract are adjustable by management to reflect emerging experience.
<p>Q102 Section 6.5.3.2 Is the method to determine the effect of management actions in a stress scenario inconsistent with the recognition of future premium increases in stress scenarios? If “yes”, please suggest a solution.</p>	
Answer	Yes
Answer Comment	The IAA believes that the current estimate should provide for expected experience of all types (e.g. mortality, morbidity, lapse, inflation, expense etc.) as well as expected management action. A LTC product with health care cost inflation should be valued with that assumption along with expected premium increases. Note that any expected friction costs (e.g. competitive pressures, delays, regulatory approval costs etc.) in taking management action should be considered in the current estimate as well. However, upon application of a sudden shock, the normal abilities of management to react (e.g. premiums, dividends etc.) may be constrained significantly due to competitive or regulatory pressures.
<p>Q103 Section 6.5.4 Are there any further comments on management actions that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.</p>	
Answer	Yes
Answer Comment	<p>The IAA notes that the credit to be given to participating contracts with dividends (bonuses) appears (in the CD) to equal 100% of the present value of currently projected dividends, For many North American life insurers this present value can be a large amount and provide a very significant capital credit versus a comparable non-participating contract. Given reasonable policyholder expectations for dividends as well as competitive pressures, some regulatory jurisdictions favour a run off of guarantees as an acceptable resolution and others would like to target a going concern of continuing “reasonable “ dividends/bonuses after a resolution. Thus the jurisdiction’s regulatory “risk appetite” preference and its legal requirements will indicate whether 100% of dividends is too large of a credit under a shock scenario or is an appropriate credit. This topic (treatment of par) was extensively field tested by Canada as OSFI prepared its LICAT requirements for life insurers during the last year.</p> <p>Further the IAA recommends that the next version of the ICS include a comprehensive clear description of the treatment of participating (with profits) business, its valuation, provision for future dividends, capital requirements versus similar non-participating policies and the manner in which the ICS affords credit in the ICS for the adjustability of par.</p>
<p>Q104 Section 6.6.2 Should the trend component be explicitly considered within Mortality risk? Please explain.</p>	
Answer	No
Answer Comment	<p>Could be a “nice to have”, but it is not really a “must have” for the purpose of the ICS. Having a similar model next to the longevity risk model means it is possible to calculate a real offset between positive and negative risk. But if included, then the model should be more detailed, including age dependency.</p> <p>ICS Model for life risk, mortality and longevity Trend Level shock shock Longevity 1% -15% Mortality 0% 10% Proposal: Trend Level shock shock Longevity 0.75% -10% Mortality 0% 10%</p>
<p>Q105 Section 6.6.2 Are the stress levels for Mortality risk appropriate? Please explain. If “no”, please provide supporting evidence and rationale for a different stress level.</p>	
Answer	Yes

Answer Comment	The level shock is based more on the expected number of deaths within the portfolio. The number of deaths depends on the size of the portfolio and age distribution of each IAIG. For setting both the BE assumption and the volatility the outcome is better described using a (compound) Poisson model. The compound Poisson model is preferred because the variance of the sum insured is also important in modelling the risks. In Solvency II the level shock for mortality is set at +15%. This is higher than the 10% shock proposed in the ICS. This difference is valid since the IAIG's portfolios are on average larger than in Solvency II.
	Q106 Section 6.6.2 Should the trend component be explicitly considered within Longevity risk? Please explain.
Answer	Yes
Answer Comment	The proposed model with a trend factor is preferred above the SII longevity model. The Solvency II model for longevity is only based on a simple -20% shock. Longevity is not based on a linear shock but will develop over the future and hence there should be a trend component in the ICS model.
	Q107 Section 6.6.2 Are the stress levels for Longevity risk appropriate? Please explain. If "no", please provide supporting evidence and rationale for a different stress level.
Answer	No
Answer Comment	Similar to the response to Q 105, the longevity shock can be a bit lower (10%) and also the trend shock should use 0.75% (instead of 1%) as this is more in line with observed practice. In Appendix 2 (submitted via a separate document/letter to the IAIS) this is shown and compared with the Solvency II model that works for average portfolios.
	Q108 Section 6.6.3 Is there evidence to support the use of stresses for Mortality and Longevity risk that vary by geographical region? Please explain and provide supporting evidence.
Answer	No
Answer Comment	Not needed for the level shocks as long as the insurer uses the data from its own country (industry). The proposed shocks are applied to the portfolio and the number of expected deaths. For the trend shock the ICS model can be used for developed countries. Comparable countries will grow to similar trends and shocks. See also the response to Q109 and the graphs in appendix 3 (submitted via a separate document/letter to the IAIS).
	Q109 Section 6.6.3 Is there a specific methodology and reference data that the IAIS should use to determine appropriate mortality and longevity stress levels by geographic region? Please explain.
Answer	Yes
Answer Comment	The human mortality database (www.mortality.org) shows detailed data for many countries over long periods. For countries not in this database, or who don't have their own detailed information, data from comparable countries (economic development, region, climate) can be used. Expert Judgement will be needed. In general, the model for developed countries can be based on a rather linear trend such as Lee Carter or a drift model . Some general remarks: Following the IAA Blue Book: a global framework for insurer solvency (2004) each risk should be analysed split into its Volatility, Uncertainty and Extreme events components Under Life risk we are missing a discussion on the level of life calamity (extreme events) in the ICS questionnaires. Life calamity is mentioned in the technical specifications on Pandemics in Catastrophe Risk which is applied to life business too. In general a shock is needed to cover a serious pandemic, for example the shock of adding 0.1% (or 0.15% like in SII). The 0.15% is based on a pandemic like the Spanish Flu, but translated to the medical situation in the present time. This level of 0.15% is more in line with the risk related to a pandemic under a 1 in 200 situation. In addition, the life and morbidity risk both have a strong dependency with calamity (pandemic) risk and we believe they should be taken care of in the aggregation method. See the response to Q214.

Q110 Section 6.6.4 Are there any further comments on Mortality and Longevity risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Q111 Section 6.7.2.1 Is the proposed segmentation for health business appropriate? Please explain.

Answer

Yes

Q112 Section 6.7.2.1 Are the stress levels for the health segments appropriate? Please explain. If “no”, please provide supporting evidence and rationale for a different stress level.

Answer

No

Answer Comment

The defined stress levels (Field Test 2016) seem to be too high. There is one fundamental difference between health indemnity insurance products (medical expense insurance), and other Life and non-Life products, which affects the risks and therefore should affect the stress test calibration. This is the fact that, faced with a claims shock, an insurer can respond within a contract boundary (typically during a year) in additional ways, over and above changes to premium increases for all policies renewing from a particular month onwards. These additional ways involve the application of a range of managed care techniques.

The fact that health indemnity premiums are dynamic, and that, in many markets, they can be adjusted fairly freely from one month to the next for all renewing policies, means that the margins on this type of business are tightly managed, and that the loss ratios typically do not move dramatically from year to year. The room for dynamic pricing means that both claims and lapse risks are more manageable within tight ranges, and for this reason typically these types of insurers should not have to require large amounts of capital. It all depends on a health insurer’s size, and the variability of its claims, and also whether policies are sold individually or to groups. A 5% increase in medical claim payments without any adjustment in renewal and new business premiums during the year appears extreme.

On the claims side, many insurers have a whole range of managed care tools at their disposal, including health provider profiling (which involves outlier doctor management within provider networks), hospital network selection, disease treatment protocol changes, drug and consumable formulary changes, co-ordinated disease management, and so on. The intensity of these measures can be dialed up during a year, within contract terms, and health insurers will therefore avail themselves of these techniques, rather than simply passively accepting adverse claims experience without taking some management action.

Both of these factors mean that stresses and claims and lapse risks should be evaluated in the context of what can be done about them in a health insurer, and not just relative to other lines of business where insurers may not have the same ability to respond to the environment. Premium flexibility also helps to manage lapse risk, and insurers often have a range of retention strategies at their disposal to influence lapses within a year.

Given the above, it appears that the 5% increase in claim payments mentioned in paragraph 366 is high, unless this 5% is measured against a previous year, and unless it includes an element of provider tariff inflation. If it is meant as a 5% variance adjusted for provider tariff inflation, it appears to be too high for all but the smallest health insurers.

In addition, it is not clear why an increase in inflation rates would be defined separately for developed and emerging markets. Is there any objective justification for this, or data that would support why there is an expectation that medical inflation volatility would necessarily be higher for emerging markets? There are certainly some countries in developed markets that experience high and even fairly volatile rates of medical inflation.

In addition, the proposed calculation is not appropriate for German long term health insurance. Calculations on the suggested basis exceed Solvency II capital requirements by significant margins, especially given German insurers’ ability to adjust premiums annually and issues relating to policyholder participation.

It is recommended that the ICS use stress levels similar to Solvency II, and, where applicable, allow policyholder participation outcomes to absorb the negative impact on available funds. The absorption should not be maximized by some balance sheet item, because the absorption effect represents the present value of future impacts, which doesn’t correlate to the existing 1-year time horizon of the balance sheet.

	Q113	Section 6.7.2.1	Is the shock for Health lapse risk appropriate? Please explain.
Answer	No		
Answer Comment	<p>The defined stress levels (Field Test 2016) seem to be too high for the reasons outlined above.</p> <p>In addition, the proposed calculation is not appropriate for German long term health insurance: A one year stress as proposed is not appropriate, because in a long term contract this stress does not reflect the nature of the business.</p> <p>There are several instruments like special policyholder reserves and surplus participating mechanisms where it is totally unclear how to handle these instruments in case of the proposed stress levels. In addition, the right to adjust the premiums in case of higher claims as assumed in the calculation is a long term mechanism which is highly correlated with the policyholder option to change tariffs. That is, policyholder behavior aspects are not well addressed under the Option 1 proposal.</p> <p>It is recommended that the ICS use stress levels similar to Solvency II, and, where applicable, allow policyholder participation outcomes to absorb the negative impact on available funds. The absorption should not be maximized by some balance sheet item, because the absorption effect represents the present value of future impacts, which doesn't correlate to the existing 1-year time horizon of the balance sheet.</p>		
	Q114	Section 6.7.2.2	Are the two product segments as defined appropriate? Please explain.
Answer	Yes		
	Q115	Section 6.7.2.2	Are the stress levels appropriate? Please explain. If "no", please provide supporting evidence and rationale for a different stress level.
Answer	No		
Answer Comment	The stress levels are similar to the Solvency II approach. However, the distinction between developed and emerging markets' medical inflation rates appear arbitrary and unjustifiable.		
	Q116	Section 6.7.3.1	Is there evidence that the volatility of health claims (Option 1) varies by geographical region, thereby justifying a more refined granularity? Please explain.
Answer	Yes		
Answer Comment	The extent of variation depends on a wide variety of factors. It is best to collect data on this, and then evaluate how geographic differentiation should be calibrated. However, it is unlikely that blunt rules such as "1% medical inflation for developed markets and 3% for emerging markets" would be supported by the evidence.		
	Q117	Section 6.7.3.1	Is there a specific methodology and reference data that the IAIS should use to determine appropriate Health stress levels by geographic region? Please explain.
Answer	Yes		
Answer Comment	Yes, specific data should be collected to determine the appropriate stress levels for different geographic regions, if at all possible. This is a big exercise, and will require extensive work to define the right approach and collect the correct data across different markets. It is therefore hard to recommend a specific methodology or reference specific data. However, if such an extensive exercise is not possible, a single view should be adopted, rather than imposing arbitrary differentiation on emerging markets without supporting evidence.		
	Q118	Section 6.7.3.1	Is there evidence to support the use of stresses for Morbidity/Disability risk (Option 2) that vary by geographical region? Please explain and provide supporting evidence.
Answer	No		

Answer Comment	The proposed stress levels are similar to Solvency II. We think they are an appropriate starting point for other regions. We recommend that any differentiation should only be implemented on the basis of actual data and evidence
	Q119 Section 6.7.3.1 Is there a specific methodology and reference data that the IAIS should use to determine appropriate Morbidity/Disability stress levels by geographic region? Please explain.
Answer	Yes
Answer Comment	Same comments as for Q117 above.
	Q120 Section 6.7.3.2 Is Option 1 (Health risk) or Option 2 (Morbidity/Disability risk) the most appropriate to adopt within ICS Version 1.0? Please explain.
Answer	A mix of Option 1 and Option 2 seems to be appropriate. ? - Take the definition of a separate Health Module from Option 1 and apply to short term business, subject to the comments made above ? - Use the segmentation and stress levels for long term business from Option 2 – subject to the comments made above ? - Add the short term business with a simple premium & reserve risk approach ? - Add a lapse risk sub module ? - Add a catastrophic sub module (Terror & Pandemic Risk) cf. Solvency II approach
	Q121 Section 6.7.3.2 Should any revisions or modifications be made to the approach selected in Q120 to make it more appropriate for ICS Version 1.0? Please explain.
Answer	Yes
Answer Comment	Explanations are given under Q120
	Q122 Section 6.7.4 Are there any further comments on Health or Morbidity/Disability risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.
Answer	No
	Q123 Section 6.8.2 Is the stress level for the level and trend component appropriate? Please explain. If “no”, please provide supporting evidence and rationale for a different stress level.
Answer	No
Answer Comment	The 40% (one-directional) shock under ICS may be appropriate for a stress test given the level of aggregation at which the shock is applied. The level and trend shock is +/- 30% under the proposed Canadian framework (LICAT), applied at the policy level for every duration, therefore ensuring that the shocked assumptions are always adverse compared to the best estimate assumptions. Such a refinement could be considered.
	Q124 Section 6.8.2 Is the stress level for Mass Lapse risk appropriate? Please explain. If “no”, please provide supporting evidence and rationale for a different stress level.
Answer	Yes
Answer Comment	ICS shocks are 30% for retail and 50% for non-retail. These shocks seem appropriate for a stress test.
	Q125 Section 6.8.2 Is the treatment of dynamic lapses appropriate? Please explain. If “no”, please suggest an alternative treatment.
Answer	Yes

Answer Comment	The approach seems appropriate. It is practical and fairly easy to implement.
	Q126 Section 6.8.2 Is the approach of taking the maximum of the level and trend components and the mass lapse component appropriate? Please explain.
Answer	No
Answer Comment	We believe that the results of the separate shocks (level/trend and mass) should be summed as they are independent risks. Capital should be held for both risks. One could consider the square root of the sum of the squares as an approach to reflect that these risks are not totally additive.
	Q127 Section 6.8.3.1 Is there evidence to support the use of stresses for Lapse risk that vary by geographical region? Please explain and provide supporting evidence.
Answer	No
Answer Comment	We are not aware of evidence to support the use of stresses for lapse risk that vary by geographical region. The company's ORSA could be helpful in identifying any company-specific geographic variances.
	Q128 Section 6.8.3.1 Is there a specific methodology and reference data that the IAIS should use to determine appropriate lapse stress levels by geographic region? Please explain.
Answer	No
Answer Comment	We are not aware of evidence to support the use of stresses for lapse risk that vary by geographical region.
	Q129 Section 6.8.3.2 Should the mass lapse stress be applied to all surrenderable policies, regardless of surrender strain? Please explain.
Answer	Yes
Answer Comment	Policyholders would be unaware of whether their policies would create surrender strain or not. Further, any act that causes loss of confidence (a sale, reputation risk, criminal conduct) would likely cause policyholders to flee regardless of their economic circumstances.
	Q130 Section 6.8.3.2 Should the mass lapse stress be applied only to surrenderable policies with positive surrender strain? Please explain.
Answer	No
Answer Comment	If there is a loss of confidence, policyholders will flee regardless of their surrender strain position.
	Q131 Section 6.8.4 Are there any further comments on Lapse risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	Yes
Answer Comment	The increased lapse rates stress test will understate the liabilities needed as there is no provision for increased mortality on the persisting policyholders.
	Q132 Section 6.9.2 Is the stress level for Expense risk appropriate? Please explain. If "no", please provide supporting evidence and rationale for a different stress level.
Answer	No

Answer Comment Although we do not have a current opinion regarding the appropriate level (which a field test could provide a basis for), we have several observations regarding the relativities used in the Expense risk test. In assessing whether a given stress level for expense risk is appropriate, several factors need to be considered.

- o It is difficult to assign a single stress level to expenses that are subject to a wide variety of future sensitivities. For example, some expenses are a direct multiple of a benchmark value, e.g., premiums for agent commission or premium tax/duty, claim amounts for claim expenses and investment management for investment expenses, and thus not subject to inflation/productivity effects. Since companies have different mixes of sensitive/un-sensitive expenses, it is inappropriate to apply a single inflation factor to all company expenses. Therefore, we suggest any such test separate these two types of expenses.
- o Other expenses are often partially fixed and partially variable, thus complicating the sensitivity to both current levels of expenses and sensitivity to inflation. "Inflation" in this case is a combination of general inflation, changes in productivity, changes in units for which expenses are spread, and other factors. The variable expenses should in most cases correspond to changes in corresponding units (e.g., premium or other measure of the volume of business, claims or assets), management productivity and general inflation.
- o The fixed and semi-fixed components of expenses are generally subject to economies of scale – thus, the larger the company, the smaller the unit-expense level tends to be. Faster growing companies can experience reductions in unit expense levels, while those companies with plateauing or declining volumes of business can experience unit expense increases.
- o Nature of the expense guarantee. For some classes of insurance, expense charges are built directly into the premiums charged and are not subject to change over the term of the contract. If this term is for many years, the expense risk can be large and a combination of both a level risk charge and inflation factor is needed. For other classes of longer-term insurance, expense charges may be subject to management action and adjustment. In these situations, credit should be allowed for management action although it is prudent to still retain some provision for expense risk due to inherent friction in passing along the cost increases to policyholders (e.g., time delays in assessing experience, regulatory approvals, and competitive pressures)
- o Inflation factor. This factor is, among other factors (indicated above), sensitive to the general inflation of the country. The first step is to ensure that the insurance company reflects the effect of general inflation in the first place. It is logical that an inflationary stress differs by region/country based upon variability of inflation in that region/country. Therefore, an expected shock might vary by geographic area, which might differ by strength of the monetary authority and the strength of the industry in that country, as well as the possibility of a significant decrease in number of units. An insurer that manages its expenses efficiently relative to its competitors may be able to achieve year over year expense improvements which help to offset some of the effects of inflation. However, insurers whose expense growth (year over year) is less well managed may experience higher levels of inflation than the general rate of inflation for their country.

Based on the above points, the IAA supports the structure of the stresses for expense risk (i.e., both level and rate of inflation). However, expenses to be stressed should not include truly variable expenses (e.g., commissions and taxes/fees). In addition, the IAA believes the shocks proposed are not unreasonable as a starting point (i.e., subject to further field testing and more study of insurer expense practices) for the ICS.

Q133 Section 6.9.3.1 Is there evidence to support the use of stresses for Expense risk that vary by geographical region? Please explain and provide supporting evidence.

Answer Yes

Answer Comment As partly noted in our response to question 132, the areas in which a stress for Expense risk might vary by geographical region include: (1) strength of the monetary authority in the appropriate country(ies) with respect to general inflation, that is, for general/wage inflation; and (2) the expected growth/volatility of the volumes of new business generally within a geographical region. Regarding the latter point, rapid business growth in some markets can place significant stress and uncertainty on insurers' ability to manage expenses and to price them appropriately. The IAA notes that even in mature markets with slow insurance product growth, careful expense management is important. Nevertheless, as indicated in our response to question 132, stresses should not be applied to those expenses truly of a variable nature (e.g., commissions and taxes/fees based on premium)

Q134 Section 6.9.3.1 Is there a specific methodology and reference data that the IAIS should use to determine appropriate expense stress levels by geographic region? Please explain.

Answer	Yes
Answer Comment	A study as part of a field test could be conducted for certain types of geographic region regarding trends in unit expenses (e.g., maintenance expenses divided by number of inforce policies). However, it is useful to separately study these expenses by lines of business, e.g., don't combine individual life insurance and group pensions, as the mix of business can more than offset any inflationary trend. In addition, expenses should be categorized by whether they are exposed to inflation or are strictly variable in nature (e.g., agent commissions, premium taxes and much of claim expenses).
Q135 Section 6.9.3.1 Is there evidence that the volatility of expense inflation experience for insurance companies varies from that of general inflation? Please explain.	
Answer	Yes
Answer Comment	<p>As indicated in our response to earlier questions, for those expenses not directly tied to specific business-related metrics (such as premiums, claims or invested assets) the volatility of expense inflation is subject to (1) changes in the number of corresponding business units (e.g., number of new policies written or inforce); and (2) productivity changes, as well as general inflation.</p> <p>In addition, in many companies and countries, the use of technology and economies of scale have reduced unit expenses, at least over short periods of time.</p> <p>In contrast, increases in regulatory and related expenses, as well as large projects, especially those to enhance technology such as increased use of social media, can introduce greater volatility. Thus, overall, the multiple factors involved, we would expect volatility of insurers' expense inflation to be greater than that of general inflation.</p> <p>Therefore the overall volatility of that part of total expenses not directly related to a business-related metric should be expected to experience greater volatility than that of general inflation.</p> <p>In contrast, the volatility of expenses directly related to a business-related metric should be less than that of general inflation as they are variable in nature and should form a relatively stable relationship to the corresponding metrics.</p>
Q136 Section 6.9.3.2 Should the IAIS assume 100% correlation between unit expense and expense inflation? Please explain. If "no", how could correlation be built into the assumptions?	
Answer	No
Answer Comment	It is not unreasonable to assume for stress purposes that for those expenses not directly tied to specific business-related metrics, the volatility of unit expenses should be expected to vary in a manner similar to that of general inflation.
Q137 Section 6.9.3.2 Are there data sources available that could be used to calibrate the correlation between unit expense and expense inflation? If "yes", please provide information on the source.	
Answer	No
Q138 Section 6.9.3.3 Should the IAIS consider introducing a cap to moderate the compounding effect of expense inflation? If "yes", what would be a reasonable level for the cap? Please provide rationale for the proposed level of the cap.	
Answer	Yes
Answer Comment	Although conceptually there should be no cap on expense inflation, we recognize that policy features (such as policyholder dividends/bonuses) can provide a buffer to offset a part of expense inflation.
Q139 Section 6.9.4 Are there any further comments on Expense risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.	

Answer	Yes
Answer Comment	<p>The following are general observations relating to expense risk, some of which are also included in our responses to questions 132-138.</p> <ul style="list-style-type: none"> • The expense risk of long-term health products, such as individual disability income and long-term care, is more similar to life insurance products. In contrast, the expense risk for short-term health products, such as most medical reimbursement policies or those offered through group insurance, is more similar to property & casualty insurance products, so should be treated accordingly. • It has to be remembered that not all expenses are subject to inflation risk. For example, commissions and taxes on premiums are strictly variable in nature. As such, inflation and inflation risk should only be applied to inflation-exposed expenses. • Unit expense inflation is comprised of: (1) general inflation, (2) changes in volume and mix of units, especially in relation to fixed or semi-fixed expenses, (3) changes in productivity and (4) mix of fixed versus variable expenses. [Note: An example of a semi-fixed expense is property costs that, while fixed in nature, at some point the company may run out of office space or staff numbers may reduce sufficiently to enable the company to move into a smaller building.] As such, the relation between unit expense inflation and general inflation is far from perfect. • Stress levels related to expenses that form part of required capital should be consistent with the stresses in other variables. For example, if there is business whose return to policyholders also includes policyholder dividends/bonuses, it is possible that these policy features can consider significant changes in expense levels and inflation. As a result, at least theoretically, such stresses should consider the type of business to which capital relates. Nevertheless, there can be practical limits to the use of these policy features (e.g., due to competitive pressure and lapse risk or curbs required by regulators). • Inflation-related stress is expressed as “expense inflation”. It would be more appropriate to express it as “unit expense inflation”. Without recognition of unit expenses, inflation would not be applied to the appropriate measure and should reflect the effect of stresses on corresponding units as well. • Although it is unlikely that a large insurer will prove to be financially unsound due to expense risk, if the insurer is not well managed or if its amount of new or inforce business decreases, its expense ratios are likely to increase, thus causing additional capital strain. In a stress situation (e.g., requiring close in, say, 12 months), although a firm typically can reduce fixed expenses, it can take considerable time to do so (e.g., due to redundancy costs or time it takes to sell a large property). Thus, there may be a short-term period during which unit expenses will increase. Any stress scenario should recognize the effect of such a delay. • One of the most common reasons for expense stresses arises when new business volumes fall or the company goes into run-off. In either case, fixed expenses that were apportioned to acquisition become part of maintenance expenses, which increases unit maintenance expenses. • Special situations may require special consideration. For example, if a firm has an especially large outsourcing service agreement, the conditions under which service costs may be revised/reviewed can be important.

Q140 Section 6.10.4.1 Non-life exposures should be reported based on the location of risks to ensure consistency across IAIGs. Regarding the reporting segment, which of the following should be used:

Answer	
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Q141 Section 6.10.4.1 Should projected net earned premiums be used as the exposure base for Premium risk? If “no”, please specify what other measure should be used and why.

Answer	
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Q142 Section 6.10.4.1 Should net current claims estimates be used as the exposure base for Claims Reserve risk? If “no”, please specify what other measure should be used and why.

Answer	
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Q143 Section 6.10.4.2 For the purposes of the ICS standard method, is the approach taken in 2015 and 2016 Field Testing adequate to account for diversification effects in Premium and Claims Reserve risks? If “no”, please provide a more appropriate alternative suggestion including rationale, keeping in mind the need to apply a consistent methodology across all jurisdictions, and to balance practicality and materiality with risk sensitivity in a standard method.

Answer

Q144 Section 6.10.4.2 Are the correlation factors appropriate for the ICS standard method? If “no”, please provide rationale and alternative suggestions supported by evidence.

Answer

Q145 Section 6.10.4.2 Is the 50% correlation factor between categories appropriate for the ICS standard method? If “no”, please provide rationale and alternative suggestions supported by evidence.

Answer

Q146 Section 6.10.4.2 Is the 25% correlation factor between regions appropriate for the ICS standard method? If “no”, please provide rationale and alternative suggestions supported by evidence.

Answer

Q147 Section 6.10.4.3 Is there a methodology that the IAIS could use for the calibration of Premium and Claims Reserve risk factors that can be easily and consistently applied across jurisdictional lines of business using the supplementary data requested in 2016 Field Testing? If “yes”, please provide specific details, technical references and rationale. Please indicate if some methods are more appropriate for particular segments or particular types of data.

Answer

Q148 Section 6.10.4.3 In the absence of adequate data, is there a way that the IAIS could determine appropriate Premium and Claims Reserve risk factors for lines of business. If “yes”, please explain.

Answer

Q149 Section 6.10.4.3 Is there a methodology that the IAIS could use to determine the appropriate number of buckets and factors, taking into consideration the context of the ICS standard method and the aim to achieve comparable results across comparable risks? Please explain.

Answer

Q150 Section 6.10.4.4 Are there practical methods for determining these adjustments in the context of the ICS standard method (considering, in particular, the trade-off between materiality of the impact and complexity of the method)? If “yes”, please provide details. If necessary please differentiate by risk and reporting segments.

Answer

Q151 Section 6.10.5 Are there any further comments on Premium and Claims Reserve risks that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Q152 Section 6.11.2.2 Is the new specification of “latent liability risk” appropriate? Please explain.

Answer

No

Answer Comment

We agree that having a provision for latent liability/mass tort is worth consideration and also are pleased that, as mentioned in item 451, "Further methods – along with refinements to this approach – are under consideration." Thus we would like to address important weaknesses in the current definition, the approach and the resulting risk charges.

1. Treatment of Workers Compensation We find that the application of the concept to US workers compensation claims is not valid. Workers compensation in the US is a social insurance program providing specified benefits through public and private insurers. The program operates on a state-by-state basis, controlled by state law and state administration. An impact as described in the latent liability definition, operating simultaneously across all states in the US, has never happened in the 100+ years of the existence of the program, and may be a legal impossibility under the US separation of powers between federal and state governments. In particular states, from time to time, significant changes in the legal administration of the workers compensation do occur. Hence, a 'latent exposure' risk charge might more appropriately be based on premium in the largest state within the insurer's US business, rather than the nationwide premium. However, variability (risk), in state administration, and other areas, is included in workers compensation experience that is available for calibration. Hence, it is not clear that for US workers compensation there is any "...portion of liability risk that is not adequately captured by historical claims experience," to any greater degree than in any other line of business. Therefore, we believe the latent liability charge for workers compensation should be zero. With respect to correlations, if there were to be a workers compensation latent liability charge, the 2016 Field Testing Template implies that the workers compensation latent liability is 100% correlated to general liability latent liability. As those lines of business operate through different legal systems, there is no reason to assume that workers compensation latent liability events, if any, are closely correlated to general liability.

2. Treatment of General Liability and Products Liability It is not clear that the proposed calibration of the latent liability risk gives enough weight to the following:

- Asbestos liability exposure is typically seen as the prime example of mass tort/latent liability exposure Yet, there has been only one such event in the past 100 years, and it is not clear that asbestos should be considered a 1/200 year event for the future.
- A variety of mass torts are already included in US general liability and products liability experience available for calibration purposes. It is not clear that the total charge would be improved by an effort to remove the existing effect of mass torts and replace it by a specific mass tort provision.
- The risk charges for general liability insurance appear to reflect concerns regarding products liability latent liability exposure. The two are often conflated, not always correctly, in part at least, because the US experience with asbestos arose when products liability and general liability were treated as a single line of business.
- A calibration of these latent liability charges should include an assessment of the extent to which the mass tort/latent liability risk is already included in the calibration data.
- The calibration does not appear to give much weight to the improved policy contract language, use of claims made policy forms, and improved underwriting criteria arising from the experience with asbestos.
- Based on the information in the consultation document, the proposed charges appear to be over-stated.

As one reasonableness check, we note that the 2015 Field test results (table 14, page 127 of 175), showed that 31% of "catastrophe": risk is from liability catastrophes compared to 40% for property. That proportion, 3:4, is surprisingly high. In our view, industry practices regarding pricing and underwriting property risks with natural catastrophe exposures suggest that the proportion of latent liability/mass tort risk to natural catastrophe risk is much less than this..

3. One Year Time Horizon The latent liability/mass tort scenario assumes 50% of the ultimate cost is recognized in one year. Recognition that quickly is inconsistent with any significant mass tort of which we are aware. Mass torts, by their nature, emerge slowly. We note that it might be reasonable to deviate from the one-year time horizon for mass torts and the long times required before costs become estimable. However, that is a separate issue.

4. Alternatives to Consider The latent liability risk approach is purely judgmental, and many alternatives are plausible/arguable.. The factor selection in the Field Testing involves several judgments regarding the effects as a percentage of premium, the number of years to consider, dependency relationships, reinsurance treatment, and other features. It might be simpler, more transparent and just as suitable, to determine the latent liability risk charge as a percentage of the otherwise determined final risk charge. We suggest that the IAIS test that approach. Alternatively, this risk might be handled via the ORSA (similar to operational risk.)

Q153 Section 6.11.2.2 Should the mass tort scenario be used to represent latent liability risk in the ICS? Please explain.

Answer

Yes

Answer Comment	The two appear to be essentially the same risk.
	Q154 Section 6.11.2.2 Are any other scenarios/refinements needed for the latent liability scenario? If “yes”, please specify and provide rationale.
Answer	Yes
Answer Comment	We agree that a provision for liability risk not reflected in calibration experience is appropriate. We recommend that IAIS test a more transparent “percentage loading on otherwise applicable risk charges.” See our response to question 152.
	Q155 Section 6.11.3.1 In addition to the perils covered in 2016 Field Testing (listed above), are there other material Catastrophe perils to which IAIGs may be materially exposed for which a scenario should be defined in the ICS standard method ? If “yes”, please provide a list, including a definition of the peril and any other specific details to support the suggestion(s).
Answer	Yes
Answer Comment	With respect to Health Insurance, - Mass accident risk (cf. Solvency II) - Accident concentration risk (cf. Solvency II) - The pandemic risk sub-module (SCRp); should be split up into income protection and medical expense. A few comments on pandemic risk for medical expense insurance. This risk has been evaluated in some detail before, and the IAA Health Committee actually drafted a briefing note on the risk of Ebola in 2015, which is available for distribution if necessary. The consensus is that a true pandemic, involving the rapid spread of infectious disease with high mortality rates, is likely to have a limited impact on a private health indemnity insurer, for two reasons: i. The treatment of infectious diseases involve isolation, and medical equipment such as ventilators. Quite often, the capacity in private hospitals is limited, and quite often, when a pandemic starts, the facilities are provided by governments or the WHO or NGOs, as happened in West Africa. This means that the insurer would typically not face significantly increased claims as a result of infectious disease. Where an epidemic develops over a long period, it does have an effect, but this can be explicitly priced for during annual premium renewals, and also managed with supply side interventions. ii. A further factor that has been noted is that, if there is a pandemic, people typically avoid hospitals, especially for elective surgery and other non-urgent treatments. Which means that it is possible for health insurance claims to actually decrease in an epidemic, depending on the types of cover provided by health insurers in a particular market. The situation is of course different for a life insurer specialising in protection products, or for a non-indemnity health insurer. For other lines of business, if an IAIG deems another peril to be significant, the IAIG should so disclose. A potential example could be volcanic eruption, a peril that usually causes very localized destruction.
	Q156 Section 6.11.3.1 Are there scenarios used in 2015 and 2016 Field Testing (listed above) which, for materiality or other reasons, should not be included in the Catastrophe risk component? If “yes”, please provide a list, including the rationale.
Answer	Yes
Answer Comment	We note that saying a scenario should not be included does not mean that capital should not be held against it. It just means that the premium risk factor covers the entire risk. Catastrophe risk charges are most appropriate where a single factor does not adequately reflect the risk. (Natural catastrophes like earthquake and hurricane fit the bill here.) For example, Marine and Aviation are likely not worth the trouble of modelling separately. They happen frequently enough that industry experience can be used to generate appropriate factors.
	Q157 Section 6.11.3.2 Should the IAIS allow the use of catastrophe models for ICS Version 1.0? Please explain.
Answer	Yes

Answer Comment There is no better alternative to the use of such models and all or nearly all IAIGs would use a model or a combination of models for various internal management purposes. In application, there will be issues, including those raised in the Consultation Document. However, the results of using the models will be much better risk assessment than the other alternatives involving ratios applied equally to each company's premium, insured values, etc.

Q158 Section 6.11.3.2 If the IAIS allows the use of catastrophe models in ICS Version 1.0, should there be requirements to ensure that the use of catastrophe models results in a fair and comparable assessment of the natural catastrophe risk? If "yes", please comment on requirements that should be included.

Answer Yes

Answer Comment As we note in response to question 157, we believe the use of models is a step forward. However, the use of elements is new and therefore there may be unintended results (good or bad). We believe that after ICS is implemented, there should be some monitoring of model use to address questions such as: 1. Are the models being sufficiently well validated and comparable? 2. Is the level and granularity of exposure serving as model inputs adequate and comparable across companies? 3. Are there issues arising from bespoke models vs. widely used models? 4. Are issues arising sufficient to require some regulatory "approval" of models or "professional opinion" supporting the model results. That would be an actuarial opinion that the model is fit for purpose and has been used appropriately for the purposes of the capital calculation (NOT an opinion on accuracy) Please refer to the IAA's work on ISAP 1A, "Governance of Models." Potentially if further guidance is desired by the IAIS, an extension of the current scope of ISAP 7 could be entertained (at present the focus of ISAP 7 is the "current estimate" for ICS purposes). In addition -, we suggest the following: The NAIC is well along in using catastrophe models in a standard formula. The NAIC formulation addresses issues such as what model is good enough, whether the catastrophe model is used for other purposes such as internal catastrophe management , when is the exposure sufficiently small, what information should be available to the regulator. We recommend that IAIS refer to NAIC for a perspective on the consultation questions.

Q159 Section 6.11.3.2 Is there information about catastrophe models and their use by the IAIG that should be reported to the group-wide supervisor? If "yes", please provide specific examples.

Answer Yes

Answer Comment Section 5.8 of the Phase 2 Field Testing Questionnaire requests substantial information from the IAIG in questions 99-101. It is likely though that in fact most IAIGs use a combination of external and internal models with adjustments. Besides validation, it would be beneficial to know how the IAIG uses the model in addition to calculating CAT ICS. In addition, reinsurance companies have catastrophe models which they are using for internal steering and also for economic risk capital calculation. If they also use it for the ICS, they should report about it. See also our response to question 158.

Q160 Section 6.11.3.2 Are there additional conditions or restrictions about catastrophe models or their use by IAIGs that should form part of ICS Version 1.0? Please explain.

Answer No

Answer Comment None other than as answered in question 158.

Q161 Section 6.11.3.2 If an IAIG were unable to meet the requirements that were set out in the specifications of the ICS, are there measures that the group supervisor should take in order to correct the weaknesses? If "yes", please provide details of suggested measures and the rationale.

Answer Yes

Answer Comment If this were the case, then the IAIG likely has an approach to addressing the exposure. The regulator would need to assess whether the IAIG approach was adequate. We assume that ICS will not require all IAIGs to use models for all perils/geographies, regardless of the materiality of the peril/geography to the IAIG.

The regulator ought to have the authority to have the IAIG demonstrate that it has a model appropriate to its circumstances.

Alternatively, the group supervisor could construct a proxy based on other results or results of other IAIGs, to fill the reporting gaps. Or, an extrapolation could be used, but the uncertainty of this approach would more than likely be greater than the other options.

Q162 Section 6.11.3.3 Is the man-made catastrophe scenario (as defined in the 2016 Technical Specifications) appropriate for the ICS standard method? If "no", please provide specific suggestions supported by reference or evidence to amend the scenario(s).

Answer No

Answer Comment For Terror Scenario: No details are provided on proposals related to medical Health insurance; only for fatality and disability.
For Pandemic Scenario: There are no details about Health exposures. For calibration details cf. Solvency II – Health Pandemic Risk

Q163 Section 6.11.3.4 Is the approach to calculate the contingent Credit risk associated with reinsurance recovery appropriate for the purposes of ICS Version 1.0? Please explain. If "no", please provide details of an alternative approach that would be more appropriate for the ICS standard method.

Answer No

Answer Comment The VAR 99.5 % gross scenario mitigated may not be the same as the VAR 99.5 % net scenario. The impact of mitigation may not preserve the order of large annual aggregate losses.

For low probability (e.g., 1-in-200) scenarios, net cat loss can have materially different levels of cessions, with the mix of applicable reinsurers varying across the scenarios. The proposal assumes that the ceded amount can be assigned to specific reinsurers with specific credit ratings, which does not seem feasible. We believe that a simpler approach is called for.

This is one of the issues addressed in the NAIC RBC implementation of catastrophe model use. Their proposed solution was to use an average credit rating for the cessions such that a pre-determined flat charge applied to those cessions. Given the charges involved, more precision does not materially change the answer regarding the capital charge for cat risk.

Also, the consultation draft approach includes the charge with other credit risk items, which implicitly assumes that the contingent credit risk charge is highly correlated with those credit risk charges (including bond default risk) and less correlated with premium and cat risk. We believe that the contingent credit risk charge is more likely to be correlated with the cat risk charge than the bond investment credit risk charge.

Q164 Section 6.11.4 Are there any further comments on Catastrophe risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Answer Yes

Answer Comment It would be better to split the catastrophic risk module into Life, Health and Non-Life and calculate them as a sub-module in the corresponding module.

Q165 Section 6.12.1.4 Are there any calibration methodologies for stressed yield curves that work in both the current negative and low interest rate environment in developed countries and where base yield curves are as they have been in the past with higher rates observed at all maturities? If "yes", please provide details.

Answer Yes

Answer Comment

Arguably yes. The use of stressed yield curves is presumably seeking to identify the potential variation that might arise in Net Assets over the relevant time horizon. If we decompose Net Assets into cash flows at different times (i.e. different durations) then we can argue that use of stressed yield curves is simply a means to constructing coherent stresses to apply to zero coupon bond prices rather than an end in itself. Potential variability in zero coupon bond prices should be partly driven by its current duration (which for a zero coupon bond of a specified time to maturity does not change in different interest rate environments) and by economic uncertainties present over the period of time to maturity, which will always be present and a priori may not differ hugely through time for longer durations. So we would suggest calibrating primarily to observed zero coupon bond variability and then backing out corresponding stressed yield curves rather than vice versa. We suggest placing a floor on the size of the assumed downward movement in the zero coupon bond price to avoid the risk that the resulting yield curve stress is too modest. We would also suggest placing a floor on the size of the assumed upward movement, since economic theories some previously proposed (before interest rates went negative) to justify a practical floor of zero on interest rates now seem doubtful. To test whether this logic is sound you could perhaps refer to interest rate implied volatilities derived from swaps with embedded caps or floors. If these volatilities are not too different now to what they have been in the past (for a given duration) then this would support the above calibration approach.

Q166 Section 6.12.1.4 Is the IAIS approach to calibrate Interest Rate risk stresses using six years of historical data appropriate? If “no”, please comment on the appropriate length of data to calibrate Interest Rate risk stresses to a target level of VaR 99.5% over a one-year time horizon. If a shorter time series is preferred, please comment on how to deal with changing market conditions and the frequency of recalibrating the ICS Interest Rate risk stresses.

Answer

No

Answer Comment

6 years doesn't seem a long enough period for this calibration (especially since longer term data should be available).
The trend in regulatory approaches elsewhere in the financial services industry seems to us to involve setting stresses by reference to data that includes a minimum proportion of periods deemed to coincide with stressed circumstances. For example, if a 10-year window were adopted and all of the last 10 years corresponded to non-stressed times then the data in the earliest part of that time window, say the first 10% of the period, would be replaced by earlier data that is deemed to correspond to non-stressed times.
The 6-year time window proposed by IAIS seems to have been deliberately chosen to miss stressed circumstances (at least those associated with the financial crisis) and so does not seem consistent with this trend.

Q167 Section 6.12.1.4 Should the ICS only assess the principal observed driver in yield curve evolutions (upward and downward movements), or should twists (flattening or steepening) be included in the risk assessment? Specifically, which of the following should be used? Please explain your answer.

Answer

Only upward and downward movements

Answer Comment

Upward and downward stresses should be included, since some insurers may have net long and others net short duration positions. Including twists adds complexity to the computation.
The table in 6.1.1 suggests that the largest single contributor to risk may be interest rate risk, suggesting that seeking to capture effects linked to the second principal component as well as the first principal component is probably justified. However, if twists are to be included then it would be helpful to see more explicit justification for why this extra complexity is desirable, e.g. showing that based on earlier field tests there were some insurers where the exposure to twists rather than to merely up / down movements was a substantial fraction of total interest rate exposure.

Q168 Section 6.12.1.4 Is the methodology used by the IAIS to determine Interest Rate risk post-diversification appropriate? If “no”, please suggest an alternative methodology.

Answer

No

Answer Comment	If a twist component is to be included then it would be desirable for it to involve the greater of a steeping and a flattening scenario rather than just one of the two, since it is not a priori clear whether insurers will typically all be exposed in the same direction.
	Q169 Section 6.12.1.4 Should the IAIS recognise diversification of Interest Rate risk between currencies? Please explain and provide details of how this could be done.
Answer	Yes
Answer Comment	In principle, diversification applies to all risks, so should apply to interest rate risk. In practice, interest rates in most developed economies seem to have moved reasonably in tandem over longer time periods, so the actual diversification that can be justified may be too small to justify the extra complexity involved.
	Q170 Section 6.12.1.4 Which of the alternative methods for GAAP Plus (1 or 2) is a better measure of Interest Rate risk? Please explain. If neither are considered suitable, please suggest an alternative method or refinements to the current method.
Answer	Method 1 is arguably a better measure of interest rate risk if there is a material risk that assets cannot be held to maturity as intended, e.g. due to regulatory distress in the meantime. Conversely, Method 1 may not incentivise insurers as much as Method 2 to invest in less liquid fixed income assets, e.g. some types of infrastructure, which may be considered socially desirable. We suggest that the political dynamics thus raised by this question be explicitly addressed when answering it.
	Q171 Section 6.12.1.4 Method 2 is based on the assumption that certain assets backing liabilities are intended to be held to maturity, and consequently are only exposed to reinvestment risk. Should the IAIS consider developing criteria to identify such assets? If "yes" please explain and provide suggestions for such criteria.
Answer	Yes
Answer Comment	If Method 2 is to be adopted then the IAIS would need to develop criteria to identify such assets (perhaps adopting criteria from accounting frameworks such as IFRS or regulatory frameworks such as Solvency II that already include such approaches).
	Q171.1 Alternatively, should method 2 make allowance for the fact that some of these assets may in fact not be held to maturity? If "yes", please explain and suggest how this may be done.
Answer	Yes
Answer Comment	See answer to main part of Q171.
	Q172 Section 6.12.1.5 Are there any further comments on Interest Rate risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	Yes
Answer Comment	<p>Some consideration should be given to interest rate risk on inflation-linked instruments (or at least some justification given as to why they can be treated in the same manner as fixed interest securities). Nominal yields have different economic drivers to real yields so a priori may not exhibit similar levels of volatility.</p> <p>The following IAA comments relating to market risk/ but also involving AOCI, /GAAP+ and MAV have been placed here in Q 172 as a more suitable home within the CD could not be found.</p> <p>1. It is not clear to the IAA that the GAAP+ and MAV versions of market risk provisioning are similar. For cases where liabilities are carried at fair (market consistent) value and an AOCI is appropriately applied to translate the assets to fair value then one would expect them to align. However, this assumes that the AOCI is appropriately calculated and the IAA review suggests that this will not necessarily be trivial to arrange. Further, for cases where liabilities are at non-market consistent value and an AOCI adjustment is applied to align</p>

assets and liabilities better, it is less clear whether the two will be similar, as the IAA struggled to understand how the AOCI adjustment would in practice be identified and applied.

2. It is also not clear to the IAA that the GAAP+ and MAV versions of market risk usefully capture ALM risk resulting from different cash flow patterns in the assets and liabilities. Given just the material in the ICS consultative document, it is not clear that the market and credit risk sections capture all aspects of own credit risk (see detailed response). Further, they may also not handle credit spread risk in as complete a fashion as might be desirable (again see detailed response for specifics).

3. Finally, the IAA found the explanation of the AOCI adjustment given in the ICS consultative document confusing and so we are unsure whether GAAP+ versions that include an AOCI adjustment will handle interest rate ALM risks effectively. In particular, we suggest exploring whether it seems to work in situations where insurers have leeway to select how assets and/or liabilities are to be treated under the relevant GAAP. Recent related BCBS material suggests that in a Pillar 1 context, robust handling of ALM risks if assets and liabilities are not in effect fair valued, may be tricky.

Q173 6.12.2.1 Is the four-bucket approach to the segmentation of equities appropriate? Please explain. If “no”, please provide an alternative suggestion and rationale.

Answer Yes

Answer Comment It seems reasonable to us, although we would note that the extent of ‘equity-ness’ of a hybrid debt / preference instrument may vary considerably.

Q174 Section 6.12.2.3 Should an equity volatility stress be included in the ICS standard method? Please explain.

Answer Yes

Answer Comment Some insurers have business models that use equities (and a variety of other non-fixed income – NFI – assets, such as derivatives, real estate, timber, oil and gas, etc.) to support their life and annuity obligations. The challenge in designing a stress is that for the risk exposure to be material it has to be a sustained high equity volatility which, in the long run would raise the cost of the hedges and thus becomes a question about long run mean reversion of equity volatility. Under a market value framework, this leads to pro-cyclical capital charges as today’s volatility (and the applied shock) is maintained throughout the future valuations and will often be either too high or too low from an actual realized point of view. If only a one time shock is applied, then the risk would not be material. This same issue applies to the more commonly understood challenge of what to do with long term interest rates and if there is a mean reversion for long term rates. So conceptually, a similar discussion of whether to assume long run means reversions and if so, how to adjust them needs to be part of the discussion before choosing how to set the stress(es). We agree that the risk exposure is as is being proposed (where the stress looks at both a fall in value and a rise in volatility). However, the challenge is in setting stresses that would realistically reflect the actual longer term risks.

Q175 Section 6.12.2.3 Is the design of the equity volatility stress in 2016 Field Testing appropriate? If “no”, please provide specific suggestions, as well as supporting rationale and evidence.

Answer Yes

Q176 Section 6.12.2.3 Is the multiplicative approach suitable for the ICS standard method? Please explain. If “no”, please highlight the key design and data considerations for developing an alternative approach (eg additive volatility stress).

Answer Yes

Answer Comment Volatility tends to exhibit noticeable autocorrelation and tends to change more in times of stress (which are typically associated with high volatility) than in times of calm. Therefore, a multiplicative approach seems sensible, perhaps with a floor to avoid being too optimistic when volatility is particularly calm.

	<p>Q177 Section 6.12.2.3 Is the treatment of long-term equity investments appropriate? Please explain. If “no”, how should they be treated differently and what criteria should be used to define long-term equity investments? Please highlight key design features and provide supporting evidence (including data).</p>
Answer	Yes
Answer Comment	As per our answer to Q170, the most suitable answer to this question depends on the extent to which it is considered socially desirable to promote insurer investment in such assets and we do not express an opinion on this matter.
	<p>Q178 Section 6.12.2.3 Is there evidence that supports the application of a correlation matrix for determining the Equity risk charge? If “yes”, please provide evidence supporting suggested correlations.</p>
Answer	Yes
Answer Comment	As per our answer to Q169 we believe that diversification is generally applicable and therefore some correlation matrix style approach may be justifiable. However, in times of stress correlations may become high, so the justified amount of diversification offset may not be particularly high.
	<p>Q179 Section 6.12.2.3 Should the Equity risk charge include a countercyclical measure to reduce pro-cyclical behaviour? Please explain. If “yes”, how should such a measure be designed and calibrated? Please highlight key data considerations where relevant.</p>
Answer	Yes
Answer Comment	As per our answer to Q170 and Q177, the most suitable answer to this question depends on the extent to which it is considered socially desirable to promote insurer investment in such assets or in this case to avoid fire-sales in times of equity market stress. We recommend that IAIS take soundings from bodies specifically charged with responsibility for financial stability before reaching a firm conclusion on the merits of such adjustments and (if they are present) how they might best be structured.
	<p>Q180 Section 6.12.2.3 Are the current approaches in the ICS appropriate for products with path dependent valuations? Please explain.</p>
Answer	Yes
Answer Comment	We agree with the theory set out in paragraph 523 but would caution that trying to capture all such effects may lead to an excessively complicated ICS. It may be that the only practical way of addressing such risks in a fairly robust fashion is via an internal model type of approach.
	<p>Q181 Section 6.12.2.3 Does the ICS capture all of the material risks for these types of contracts? Please explain.</p>
Answer	Yes
Answer Comment	See answer to Q180.
	<p>Q182 Section 6.12.2.3 Are there alternative approaches that would capture path dependent Equity and Interest Rate risk? Please explain.</p>
Answer	Yes
Answer Comment	See answer to Q180.

Q183 Section 6.12.2.4 Are there any further comments on Equity risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Q184 Section 6.12.3.2 Is the approach adopted for Real Estate risk in 2016 Field Testing appropriate for the ICS standard method under MAV? Please explain. If “no”, please provide specific proposals to amend the approach as well as supporting rationale and evidence.

Answer

Q185 Section 6.12.3.2 Is the approach adopted for Real Estate risk in 2016 Field Testing appropriate for the ICS standard method under GAAP Plus? Please explain. If “no”, please provide specific proposals to amend the approach as well as supporting rationale and evidence.

Answer

Q186 Section 6.12.3.3 Are there any further comments on Real Estate risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Q187 Section 6.12.4.2 Is the methodology used to determine the level of the Currency risks stresses appropriate? Please explain.

Answer

Yes

Answer Comment

The more granular approach seems theoretically more justifiable. However, the methodology being proposed seems potentially materially more complicated than is being proposed for other parts of the ICS, when the results quoted in 6.1.1 suggest that this is a relatively less important risk category for the cohort likely to be within the scope of the ICS.

Q188 Section 6.12.4.2 Is the assumption of a single correlation factor of 50% for all currencies appropriate in a time of stress? Please explain. If “no”, what methodology could the IAIS use to determine an appropriate correlation matrix for Currency risk?

Answer

No

Answer Comment

If a US insurer had net exposure to Euro and separately to a currency currently pegged to the Euro prior to planned entry by that member state into the Eurozone then assuming significant diversification between how the dollar might move versus the Euro and how the dollar might move against the Euro-pegged currency seems potentially rash.

Q189 Section 6.12.4.2 Is the treatment of currency pegs appropriate? Please explain.

Answer

No

Answer Comment

See answer to Q188.

Q190 Section 6.12.4.2 Should the IAIS allow for a partial exemption for investments in foreign subsidiaries? Please explain.

Answer

Yes

Answer Comment

The proposed approach seems a little convoluted versus, say, more traditional accounting consolidation approaches, albeit the latter can become complicated for partly owned subsidiaries. Is there any reason not to use the same consolidation approach as might apply to the derivation of group own funds or the currency risk calculation could allow for what is termed a “partial exemption for investments in foreign subsidiaries”, with that exemption based on local capital requirements. Such an approach would be more accurate than the current 10% of liabilities approach.

	<p>Q191 Section 6.12.4.2 Is the exemption for investments in foreign subsidiaries appropriate? Please explain.</p> <p>Answer Yes</p> <p>Answer Comment See answer to Q190</p>
	<p>Q192 Section 6.12.4.2 Is there a better proxy of the subsidiary's contribution to the ICS? Please explain.</p> <p>Answer Yes</p> <p>Answer Comment See answer to Q190</p>
	<p>Q193 Section 6.12.4.2 Are there any further comments on the approach described for 2016 Field Testing? Please explain.</p> <p>Answer Yes</p> <p>Answer Comment See answer to Q190</p>
	<p>Q194 Section 6.12.4.2 Is the treatment of currency exposures with a maturity of less than one year appropriate? Please explain.</p> <p>Answer No</p> <p>Answer Comment We do not understand the logic for an approach that gives only partial credit for hedges lasting less than 1 year (particularly if there is some scope to roll the hedge at maturity). To take an extreme example, suppose a firm has its base currency as Dollar and has Net Assets of \$100 wholly invested in Euro-denominated assets. Suppose it now takes out a 1-week currency hedge for \$2100 from Euro into Dollar. According to the proposed formula this would reduce the currency mismatch from 100 to $100 - 2100/52 = c. 60$, i.e. reducing the capital charge by 40%. However, the net Euro exposure during that week would change from 100 to -2000 (i.e. a 20-fold rise and in the opposite direction) and if the Euro were to appreciate by 5% during that week the firm's Net Assets would be wiped out.</p>
	<p>Q195 Section 6.12.4.3 Are there any further comments on Currency risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.</p> <p>Answer</p>
	<p>Q196 Section 6.12.5.2 Is the approach adopted for Asset Concentration risk in 2016 Field Testing appropriate for the ICS standard method? Please explain. If "no", please provide specific proposals to amend the approach as well as supporting rationale and evidence.</p> <p>Answer Yes</p> <p>Answer Comment If the ICS is seen as partly a response to systemic risk concerns then capture of linkages between G-SIIs and other G-SIFI's is likely to be desirable and is likely to be facilitated by collection of data along the lines of paragraph 545(c). From a systemic risk perspective, disincentivising very large exposures via such an approach is likely to be desirable. However, we would note that within the macroprudential community scepticism is growing over whether exposures to sovereigns should be excluded from such analyses. This seems to be implicit in paragraph 545(b) and we would recommend reconsidering using a 0% risk charge for such exposures (in line with IAIS proposals in paragraph 564).</p>
	<p>Q197 Section 6.12.5.3 Are there any further comments on Asset Concentration risk that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.</p> <p>Answer Yes</p>

Answer Comment	See answer to Q196.
	Q198 Section 6.13.3.1 Do you support the approach used for 2016 Field Testing with respect to allowing the use of external credit ratings for ICS Credit risk purposes? Why or why not?
Answer	Yes
Answer Comment	See answer to Q200 since the use of external credit ratings implicitly requires some mapping of ratings from different agencies onto a common 'score' (although in practice the IAIS could adopt mappings agreed by others, e.g. those used in Solvency II which we believe are based primarily on work done by the European Banking Authority).
	Q199 Section 6.13.3.1 Does any alternative to the use of ratings issued by credit rating agencies exist in the regulatory framework of your jurisdiction (eg supervisory-owned processes)? Please provide details.
Answer	
	Q200 Section 6.13.3.1 Should the IAIS allow the use of ratings and/or designations that are not issued by credit rating agencies, for example, ratings and/or designations that are issued by a supervisory-owned process (eg, the NAIC Securities Valuation Office)? Please explain.
Answer	Yes
Answer Comment	As per our answer to Q198, some process will be needed to identify how to map the rating from any given external credit rating agency onto a standardised 'score' (although this process might be borrowed from work other regulators have already done in this area). In principle it should be possible to extend this to supervisory-owned processes. How such a process would work for processes owned by supervisors in one jurisdiction when applied to IAIGs and SIIs located in a different jurisdiction is likely to require further work on the part of IAIS.
	Q200.1 Section 6.13.3.1 If "yes" to Q200, should the IAIS consider modifying the criteria for the recognition of rating providers, taking account of the specific features of the supervisory-owned process? Please explain.
Answer	Yes
Answer Comment	See answer to Q200.
	Q200.2 Section 6.13.3.1 If "yes" to Q200, are the criteria for credit rating agencies appropriate for alternatives to the use of credit rating agencies? Please explain.
Answer	Yes
Answer Comment	See answer to Q200.
	Q201 Section 6.13.3.1 Are there any additional factors the IAIS should consider when deciding on whether to allow in the ICS the use of credit assessments (eg ratings or designations) from sources other than credit rating agencies? If "yes", please explain and provide details.
Answer	Yes
Answer Comment	There seems to be a desire with the regulatory community to encourage firms to reduce their reliance on external credit rating agencies. This would tend to favour some scope to use credit assessments from sources other than (external) credit rating agencies.

Q202 Section 6.13.3.2 Is the approach adopted for 2016 Field Testing for commercial and residential mortgage Credit risk charges appropriate for the ICS standard method? Please explain. If “no”, please provide specific proposals for how it should be changed as well as supporting rationale and evidence.

Answer

Q203 Section 6.13.3.3 Should the IAIS continue to explore a different approach for Credit risk from reinsurance exposures, and in particular, for collateralised reinsurance? Why or why not? If “yes”, please provide specific proposals, rationale and evidence to support the proposals.

Answer

Q204 Section 6.13.4 Are there any further comments on Credit risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Q205 Section 6.14.3 Should the IAIS use exposures that are reported before the impact of ceded reinsurance for determining the Operational risk charge? Please explain.

Answer

Yes

Answer Comment

Exposures before reinsurance would be more appropriate because ceded reinsurance may not reduce the risk of loss resulting from inadequate or failed internal processes, people and system. The gross exposure better reflects the volume of activity of a company and also reinsurance would typically not cover operational risks. Exposure before reinsurance is simpler than after reinsurance to be used in standard method.

Q206 Section 6.14.3 Are the proposed Operational risk exposures appropriate for the ICS standard method? Please explain.

Answer

Yes

Answer Comment

One of the challenges in quantification of operational risk is that the risk is closely linked to the risk culture of an undertaking. If we try to set the exposure measure for operational risk, we agree that it needs to reflect the business of the undertaking. Combination of premium and liabilities (claim reserve) for non-life and health business is appropriate. Both premium and claims need to be used as depending on the line of business. One may be a better carrier than the other - eg for cat cover claims would not be a good indicator, and premiums do not reflect the risk which may exist around handling/managing long-tail claims. For life business gross liabilities could be used as an exposure measure. But premium is not appropriate measure for life business because life business focuses on long duration contracts. It needs also to be noted that definition of premium is different between accounting standards. Another suggestion would be expenses as more complex business would typically have greater expenses associated with them and often expenses will be incurred in advance of liabilities growing in a growth phase - clearly this wouldn't capture the increased risk associated with expense cutting initiatives but one cannot expect to capture all the different types of operational risk in a simplistic factor-based approach. One can of course argue that the subjective nature of operational risk quantitative measures also means that more complex methods are spuriously accurate anyway.

Growth written premium is not appropriate for exposure measure.

Operational risk increases significantly when an organization experiences rapid growth. Growth typically involves new markets and/or products and new people in the organization. That usually puts significant pressure on the systems in place and on the control system. It makes sense to try to capture the extent of rapid growth and to reflect this in the assessment of the operational risk. But the speed of growth would be controlled by strategic decision making of the company. It may be more appropriate to capture rapid growth risk in other risk category.

Q207 Section 6.14.3 Are the proposed Operational risk factors appropriate for the ICS standard method, both in terms of size and relativity? Please explain.

Answer

No

Answer Comment

We think it is difficult to judge the relativity of the calibrations as a % of gross premiums as the underlying shape of the operational risks relating to the different lines of business are varied – as noted above we think other metrics might be better suited to longer tail business (both life and non-life) – for example a lot of life investments products are single premium and liabilities or expenses might better reflect ongoing operational risks in relation to managing/investing these products over their lifetime. Another challenge in quantification of operational risk is that reliable data for insurance companies is currently scarce. It is more difficult to calibrate the factor for high severity low frequency operational risk events. Setting of quantitative risk factor for operational risk needs to rely on expert judgment.

Q208 Section 6.14.4 Are there any further comments on Operational risk that the IAIS should consider in the development of ICS Version 1.0? If “yes”, please explain with sufficient detail and rationale.

Answer

Yes

Answer Comment

We would recommend the IAA Risk Book chapter on Operational Risk (<http://www.actuaries.org/index.cfm?lang=EN&DSP=PUBLICATIONS&ACT=RISKBOOK>) for future consideration. One of the emerging best practices we identify there is to assess Operational Risk charges after a qualitative ranking of a variety of Operational Risk Exposures into high, medium and low buckets.

Q209 Section 6.15.3.1 Is the structure of the correlation matrices used for 2016 Field Testing appropriate? If “no”, please provide specific alternative suggestions and evidence on why this approach would be more appropriate.

Answer

No

Answer Comment

The IAA is supportive of the general manner in which the correlation matrices have been designed. However, there are some aspects of those matrices which are not reflective of the business of insurance in certain major markets. These require rectification in the next version of ICS (see comments to follow in next questions).

Q210 Section 6.15.3.2 Should the calibration of the correlation parameters for the ICS standard method include a material degree of judgement since relevant and available data are limited? Please explain. If “no”, please provide rationale, specific suggestions and evidence or references to support an alternative approach.

Answer

Yes

Answer Comment

The IAA is supportive of a standard approach for the ICS which leaves limited judgement with insurers. The IAA recognizes that a standard approach aims to deliver a comparable calculation across all IAIG's. In so doing it is not designed to capture the specifics of the risks (including their interactions) of any one insurer. Rather the standard approach aims to reflect industry average risk specifics. The task of building an internal model within an insurer can involve considerable care and complexity with respect to modelling risks and their interactions. This work requires considerable expertise and expert judgement due to the lack of suitable data in the tails of the distributions. The IAA therefore recognizes that the calibration of the ICS standard approach, including the correlation parameters, will require the use of expert judgement by the IAIS team. While the ICS approach to allowing for diversification credit enables a comparable industry-wide approach to be applied to insurers and insurance groups, risk dependencies and their behaviour can vary considerably from one insurer's circumstances to another. Consequently, it is very important that insurers model and stress test their risk dependencies on a routine basis. Such modelling and testing should be an important element of insurer and insurance group (including at the head of the group) ERM and capital management. ORSA is a useful tool for reporting the results of such testing. The actuarial function is a vital source of advice on these matters to both insurers and insurance groups.

Q211 Section 6.15.3.2 How could the IAIS combine data and judgement in the calibration of correlation parameters for aggregation and diversification?

Answer

The IAA suggests that the IAIS focus on ensuring that correlation parameters reflect insurance business realities in key markets, at least directionally. Key relationships that are not recognized or are poorly recognized in the parameters should be fixed. We do not intend that relationships important to a jurisdiction which constitutes a small percentage (say, less than 5%) of the global market need be incorporated. However, if 40% of the global market experiences risk correlations not reflected in the ICS, then these need to be fixed.

The IAA further suggests that it is the direction of the correlation that is important, whether it is on-sided or two-sided and also the broad strength of the correlation.

Q212 Section 6.15.3.2 Are there available data that would be relevant for the calibration of the correlation parameters of the ICS standard method? Please explain.

Answer

Yes

Answer Comment

For some types of correlations there may be considerable knowledge that has resulted from the past experience of insurers (e.g. impact of selective lapsation on remaining insured lives; impact of market risks on financial options in the hands of policyholders etc.). Modeling and scenario testing of insurer portfolios can help in the understanding of the capital impact. The IAA volunteers its assistance and experience on these matters.

Q213 Section 6.15.3.2 Are the correlation factors being used between ICS risks appropriate for the ICS standard method? Please explain. If "no", please provide rationale and alternative suggestions supported by evidence.

Answer

Yes

Q214 Section 6.15.3.2 Are the correlation factors being used for Life risks appropriate for the ICS standard method? If "no", please provide rationale and alternative suggestions supported by evidence.

Answer

No

Answer Comment

The IAA believes that 2 aspects of the Life risk correlation factors require fixing. Firstly, the current correlation parameter between mortality and lapse risks is zero. In North American individual life insurance markets, there are several types of life insurance products, constituting significant amounts of the business in-force, which exhibit a strong correlation between lapse and mortality. Please refer to the IAA response to the lapse questions for specifics. There is considerable North American experience with these correlations that will be useful in finding an appropriate fix.

Secondly, the current ICS life risk correlation matrix does not include calamity risk and believe it should be included. Both parts of calamity, due to morbidity and mortality, need to be combined (correlation 1). In aggregating this combination with the other risks the following issues are important: - In a reaction to a severe pandemic equities can fall. A high correlation (0.5) will be needed with equity risk. With market risk where equity risk is part, a correlation of 0.25 is advised. - A pandemic can increase the expenses of an insurance company. Still it has to be defined whether this increase is part of operational risk (like in SII) or part of expense risk.

Q215 Section 6.15.3.2 Are the correlation factors being used for Market risks appropriate for the ICS standard method? If "no", please provide rationale and alternative suggestions supported by evidence.

Answer

Yes

Q216 Section 6.15.4 Are there any further comments on Aggregation and Diversification that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Answer Yes

Answer Comment

The challenges in designing into the ICS a structure for providing diversification credit are many and may include the following: - Diversification benefits vary significantly based on the specifics of the risks of the insurer and insurance group yet the standard approach (by necessity) applies one approach to all IAIGs. - Diversification benefits tend to require significant expert judgement as there tends to be little real data - Due to the nature of the ICS, the focus is on diversification in the tails of the combined distributions, again where data is sparse. - The shape of loss distributions can vary significantly, especially in their tails. This makes the task of designing a standard approach for diversification very difficult. - A diversification structure designed and calibrated for one jurisdiction may not suit the needs of all jurisdictions as their risks and behaviors may be different (ie an extension of the first bullet.

Regardless of these significant complexities, there is little doubt that some level diversification credit is appropriate in the ICS. It would also seem prudent to leverage off an existing diversification structure for which there has been extensive calibration and industry input. The SII structure on which the ICS diversification structure appears to be built is a logical starting point.

A key IAA issue is whether this structure is suitable for all major insurance markets including North America, growing markets in Asia as well as the EU. If the proposed ICS structure fails to recognize (even to a limited degree) some key risk dependencies in a major market then the ICS risks producing inappropriate (perhaps low; perhaps high) capital requirements for these markets.

As noted above, the IAA recommends that the IAIS correct the following notable gap in the current ICS diversification/dependency structure: - Lapse/mortality dependency Beyond this gap, the IAA is supportive of the overall framework for diversification/dependency proposed in the ICS along with the following observations: - While the ICS approach to allowing for diversification credit enables a comparable industry-wide approach to be applied to insurers and insurance groups, risk dependencies and their behaviour can vary considerably from one insurer's circumstances to another. Consequently, it is very important that insurers model and stress test their risk dependencies on a routine basis. Such modelling and testing should be an important element of insurer and insurance group (including at the head of the group) ERM and capital management. ORSA is a useful tool for reporting the results of such testing. The actuarial function is a vital source of advice on these matters to both insurers and insurance groups (including at the head of the group). - Much care is needed when considering dependency relationships. For example, one aspect of diversification discussed within the IAA was the degree to which risks might be correlated across countries. In the case of non-life risks, the common IAA view is that there is little correlation of these risks across countries although there may be considerable correlation for such risks within a country. In the case of life risks such as mortality there may be some degree of correlation across countries which share similar trends affecting mortality (e.g. health care, diet, prosperity etc.).

The IAA has several specific comments on the dependency/aggregation material presented in the ICS in a number of sections. Please refer to those sections for our responses in these areas.

Q217 Section 7.2.1 What would be an appropriate level of granularity that would strike a balance between accuracy and operational feasibility/complexity?

Answer

The IAIS defined the ICS balance sheet and capital requirement to be derived from consolidated group data. However due to the differences in jurisdictional tax rates the deferred tax balance of the group depends on the differences of the tax balance sheet in each tax jurisdiction the group is active in and the corresponding notional ICS balance sheet relating to the same tax jurisdiction. For IAIG's that are typically active in many jurisdictions, a bottom-up approach would effectively imply the establishment of an ICS balance sheet for each legal entity, which creates a large workload. The IAIS could consider leaving the decision whether to apply a detailed or simplified bottom-up approach or a top-down approach to the IAIG. In cases where an overall net deferred tax asset results for the group as a whole, the tax calculation could be reviewed by the local supervisor to assess its accuracy and whether a haircut to the DTA should be applied in recognising it as eligible capital resources.

Q218 Section 7.2.1 Would an approach that utilises an effective tax rate at the country level be appropriate? Please explain.

Answer No

Answer Comment	The use of a pre-determined tax rate specific to where the group is domiciled does not take into account in which jurisdiction the business of the each specific IAIG originates and therefore would not reflect the true tax exposure of the IAIG. The use of effective tax rates for each country the group operates in seems a viable approach. The IAIG should then be free to determine the weights that best reflect the allocation of balance sheet differences to these jurisdictions and to derive an effective overall tax rate for the group.
	Q219 Section 7.2.1 Please provide any commentary on what would be considered an appropriate method to derive a global effective tax rate. Please support any proposed method with a short list of pros and cons.
Answer	
	Q220 Section 7.2.1 If post valuation adjustment DTAs would be included as a component of capital, a method to determine realisability or a partial deduction would also likely be an element of the calculation. Do you have any suggestions for an appropriate method to determine realisability of DTAs given a top-down approach? Would you prefer a partial deduction method? Please provide a rationale for your answer.
Answer	Where there is a net deferred tax asset on the ICS balance sheet the IAIG should have the possibility to demonstrate its realisability through projections of future income, such as income from new business or existing business outside the contract boundaries. Where no realisability analysis is presented, limitations in recognising the net DTA in capital resources could be considered by the IAIS.
	Q221 Section 7.2.1 Should the IAIS pursue a more bottom up approach to determining deferred taxes post valuation adjustment? If "yes", please provide any commentary to support this view.
Answer	Yes
Answer Comment	The IAIS should leave it to IAIG to use a bottom-up or top-down approach. The accuracy of the approach could be assessed by the group supervisor.
	Q222 Section 7.2.1 Please provide any other options that should be considered by the IAIS with respect to reflecting the impact of revaluation under GAAP Plus and MAV on deferred taxes.
Answer	N/A
	Q223 Section 7.2.1 Should DTAs and DTLs be adjusted in both the MAV and GAAP Plus approaches to take into account the effect of discounting to ensure they are valued consistently with other material balance sheet items? Please explain.
Answer	No
Answer Comment	DTA and DTL should not be discounted as the projection of the timing of the reversal of the underlying differences is not possible, as these reversals are driven by many underlying asset management and liability management decisions. Additionally, when under MAV/GAAP+, liabilities are discounted and the resulting DTA/DTL arising from reversals or timing differences are effectively discounted already.
	Q224 Section 7.2.1 If the answer to the above question is "yes", should a restriction be applied to the discounting of only one type of DTA or DTL, eg long-dated item? Please explain
Answer	
	Q225 Section 7.2.1 Should an approximation of the discounting effect on a post-stress DTA be taken into account in any tax adjustment to the ICS capital requirement? Please explain.

Answer	No
Answer Comment	To the extent a net DTA remains in the stressed balance sheet (i.e. the balance sheet that results after the ICS stress has realized), it should be subject to similar recoverability testing as required for the ICS balance sheet recognition of a DTA. In particular, DTAs should not be discounted (see Q223).
Q226 Section 7.2.2 Should MOCE be tax effected? If "yes", what effective tax rate should be applied, and why? Please answer for both prudence and cost of capital MOCE.	
Answer	Yes
Answer Comment	The answer to this question depends on the nature and objective of the MOCE (which seems not finally decided). For the part of a prudence MOCE that is expected to be paid out to policyholders (with a certain probability), this will reduce future taxes payable. Thus at least part of the P-MOCE could be considered as a deferred tax asset that is realized as tax savings when more than the best estimate is actually paid out. n the other hand, a cost-of-capital MOCE (under a going concern perspective) represents taxable future income and therefore does not reduce future taxable income and consequently has no deferred tax effect.
Q227 Section 7.2.2 Should deferred tax assumptions be incorporated into the cost of capital MOCE calculation? If "yes", please specify.	
Answer	Yes
Answer Comment	The tax effects should be included in the rate chosen for the costs of capital calculation (i.e. a net cost of capital rate).
Q228 Section 7.2.3 Please provide any specific recommendations for an appropriate realisability methodology.	
Answer	Deferred tax assets should be realisable to the extent there are deferred tax liabilities on the balance sheet. Any excess (i.e. net) deferred tax asset should be realisable to the extent there is future taxable income arising from new business (which is not recognised in the MAV balance sheet) or existing business that is outside the contract boundary.
Q229 Section 7.2.3 Please provide any input or feedback on the consideration to limit the DTA in capital resources either through a partial deduction and/or an overall limit.	
Answer	To the extent realisability of a net deferred tax asset can be demonstrated no deduction or limitation is required.
Q230 Section 7.2.4 Is there an appropriate methodology for evaluating the realisability of DTAs under stress which would lead to an appropriate treatment of deferred tax in the ICS capital requirement? If "yes", please explain.	
Answer	Yes
Answer Comment	A net deferred tax asset resulting on the stressed balance sheet (i.e. the balance sheet that results after the stress used to determine the pre-tax capital requirement has materialized) should be subject to an analogous recoverability test as for the balance sheet net DTA recognition. However, projections of future taxable income should take into account the post-stress economic environment (i.e. potentially de-risking measures, change in business mix etc.). When a net deferred tax liability on the pre-stress balance sheet is sufficient to cover additional deferred tax assets resulting from the stress impact, no recoverability test should be required (i.e. the stressed balance sheet does not show a net deferred tax asset).
Q231 Section 7.2.4 Which of the following approach should the IAIS consider for including the impact of taxes in the calculation of the ICS capital requirement? Please explain, including providing a list of pros and cons.	

Answer	Should the ICS capital requirement be calculated in a similar fashion to the current Field Testing approach, where each ICS risk charge is calculated on a pre-tax basis and the tax impact computed on a consolidated post-diversification basis using a global effective tax rate?
Answer Comment	Given the complexities of allocating particular stresses to jurisdictions, this appears the only viable option. See also Q 230.
	Q232 Section 7.2.4 Should tax strategies/management actions and diversification impacts be reflected/allocated to tax jurisdictions if the deferred tax impact is calculated using a bottom-up approach? If "yes", how should this be reflected/allocated?
Answer	
	Q233 Section 7.2.4 Should the IAIS address the substantiation of the realisability of DTAs? If "yes", please explain, taking into account issues related to a stress DTA (including defining future tax profits, reflecting the shock on future profits and avoiding double counting).
Answer	Yes
Answer Comment	To the extent the stress leads to deferred tax assets that are covered by net deferred tax liabilities in the pre-stress balance sheet no realisability test should be required. For recognition of excess deferred tax assets the IAIS could consider providing the possibility for an IAIG to substantiate how after the stress (and considering the economic situation after the stress) the IAIG will generate future taxable income (e.g. from new business or existing business outside the contract boundaries).
	Q234 Section 7.2.4 Should groups be able to assume they can obtain value for the tax effects of the stress loss by selling tax losses to unregulated group companies which have taxable profits? If "yes", how would they assess whether these group companies would still be profitable in stress?
Answer	
	Q235 Section 7.3 Are there any further comments on the approach to tax within the ICS that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.
Answer	No
	Q236 Additional comments on any section Are there any additional comments that the IAIS should consider in the development of ICS version 1.0 that have not been addressed in any of the previous questions? If "yes", please explain with sufficient detail and rationale.
Answer	Yes
Answer Comment	<p>The IAA is pleased to respond to the IAIS ICS Consultation Document (CD) issued July 2016. This CD represents an important milestone for the IAIS in the design and implementation of a global capital framework for insurers. Through the experience of its member associations and of individual actuaries globally the actuarial profession has long played an important role in insurer solvency assessment (e.g., "Global Framework for Insurer Solvency Assessment", IAA 2004) and welcomes this opportunity to be of assistance to the IAIS.</p> <p>The IAA is very supportive of the importance and usefulness of a standard approach for determining insurer capital requirements. Further, the IAA is supportive of many aspects of the design of the ICS standard approach as detailed in the CD. The IAA believes, however, the design requires improvement or correction in many areas. Accordingly, the IAA has submitted its responses to the questions raised in the CD via the IAIS provided on-line tool. Given the number of questions posed, the IAA believes it beneficial to identify the key themes or messages that are of overall importance to the IAA. Accordingly, the following are the IAA's key themes/messages for the IAIS at this stage in the development of the ICS for IAIG's.</p> <p>Overall</p> <p>1. The ICS standard approach is only one tool in insurer solvency assessment and should</p>

be used by supervisors in conjunction with other useful tools that provide additional perspectives on the risks of an insurer or insurance group. These tools include, for example, ORSA and stress and scenario testing (beyond the stresses included in the ICS). Over-reliance on the results of one tool designed based on industry average data may fail to reveal insurer specific risk sensitivities or exaggerate the actual risk(s) involved. Some of the IAA responses address this issue. 2. The IAA supports the IAIS goal of developing a standard approach which achieves comparable outcomes across jurisdictions. Some of our responses note specific weaknesses or bias in the current ICS with respect to the risks undertaken by insurers in a particular jurisdiction. 3. The IAA supports continued exploration of both GAAP+ and MAV valuation approaches as part of the ICS framework for their potential to achieve comparable outcomes. Several of the IAA responses highlight areas in which comparability of each method can be improved. The IAA believes that it remains to be demonstrated whether either approach produces comparable outcomes by itself, or when both methods are in mixed use by different IAIG's or even within an IAIG. The IAA believes that mixed usage of GAAP+ and MAV requires further study. 4. The IAA notes that the challenge in assessing whether the entire ICS package fits together for long duration contracts is due significantly to the need for consistent treatment of investment risks (i.e., market risks, credit risks, reinvestment, matching, risk mitigation and risk management etc.) in both the assets and liabilities. 5. The CD is not clear on how group risks will be addressed in the standard approach. For example, ICS Version 1.0 as described in this CD does not recognize that fungibility of capital considerations within a group can either hinder or enhance the solvency position of the group depending on the positioning of capital within the group and its source of financial distress. Further, the CD should clarify the expected difference in loss absorbency of group capital expected from an IAIG versus a GSII. 6. The IAA believes there is considerable lack of clarity surrounding the intended valuation and capital treatment of life and health insurance adjustable products (i.e., both participating (with dividends/ bonuses) and non-participating adjustable (i.e. adjustable premiums or other charges)) in comparison with fully guaranteed life and health insurance products. While we support the focus of the ICS to use consistent approaches on valuation matters across all product types, the ICS framework will need additional clarity and discussion on the positioning and amount of credit to be taken for product adjustability. For example, for a par life insurance contract with annual dividends/bonuses, is the valuation to be (1) implicit and assume all experience gains are passed along to the policyholder (in which case substantial adjustability is implicitly assumed in the valuation and little further capital credit is needed for adjustability) or (2) based on current estimate projections of experience and dividends consistent with that experience (i.e., in which case a substantial capital credit – where the dividends are non-trivial in size – versus a similar non-par product – will be required for adjustability)? The latter approach is more consistent with the current estimate foundation of the valuation of insurance liabilities and enables a verifiable actual to expected monitoring of the actual adjustability potential of the dividends. In contrast, the former is more consistent with a valuation framework based on a “bottom up” approach to the discount rates. 7. The IAA understands that practical limits and tradeoffs exist for obtaining comparable outcomes and pledges its continuing support on related design issues. The need to achieve comparable outcomes (design principle 5) while, at the same time, using measures that are reflective of the actual risk exposures (design principle 6), will require compromises. These compromises need to be done in a transparent manner so that the design tradeoffs between comparability and actual risk exposures are clear. The IAA expects that this issue will be an important continuing challenge.

Scope of Group (Section 3; Q 1-4)

1. The IAA believes that a single clear definition of the head of an insurance group (HoIG) which serves the ICP's, Comframe and ICS together is very important to enable effective assessment of group-wide risk, capital management and supervision. In our response to Q 1-4 the IAA provides a constructive alternative for the definition of an HoIG. 2. The ICS CD appears to focus only on insurance-led financial conglomerates and does not appear to deal with IAIG structures that have non-insurance entities as the HoIG. 3. The ICS is only one aspect of the supervisory tools used in group-wide supervision. Lack of a common approach across the integrated IAIS standards will result in ambiguity, varying practices among groups and supervisors and hence lead to supervisory inefficiency, regulatory arbitrage and an undermining of the ICS goals. 4. The IAA recommends that the HoIG satisfy itself that it has sufficient access to actuarial function advice.

Valuation (Section 4; para 65-70)

1. The IAA supports the IAIS/ICS goal of comparability of outcomes. While GAAP+ and MAV may eventually be designed to provide reasonably comparable surplus outcomes, that does not necessarily mean that they will provide comparable ICS required capital outcomes given the stress-based approach to assets and liabilities that underpins the ICS. 2. The IAA believes that the following conditions foster greater comparability: a. Assets and liabilities are valued consistently thereby leading to surplus which is not distorted by inconsistent valuation methods b. Valuation of liabilities is based on a combination of current estimate assumptions along with a consistently applied and comparable MOCE c.

Across methods - The quantum of surplus from each method should be comparable (similar) - A range of stresses applied to either method should not produce materially different results - The level of conservatism in the MOCE is roughly the same in both methods 3. The IAA believes that the following conditions interfere with comparability: a. Unbalanced options in assets/liabilities (i.e. greater value or different behavior on one side versus the other) since their valuation differs greatly under GAAP+ vs MAV thus causing a loss in surplus comparability over time b. Unbalanced valuation (both current estimate and MOCE) reactions to changing assumptions (i.e. due to different approaches to reflect changes in experience both within each method and across methods), cause a loss in surplus comparability over time.

MAV Approach (Section 4.1; Q 5-32) (Open questions 5, 15 & 25)

1. The IAA recommends that the MAV use an economic approach to the valuation of insurance risks to the greatest extent possible and rely on the MOCE and capital requirements of the ICS to provide the desired level of prudence. 2. The IAA recommends that the IAIS not re-open several technical design matters which have been extensively debated in the development of IFRS 17, unless the change is materially necessary to improve the correspondence of the balance sheet to the economic position in a reliable fashion. The IAA believes that the decisions already reached for building blocks 1 and 2 for IFRS provide a suitably economic baseline, meeting the needs of the IAIS for an audited MAV approach. The IAA recognizes that while the margins in the proposed IFRS 17 are not fully economic, using IFRS 17 as a baseline would greatly simplify the workload for IAIG's and for regulators as well as being an audited reporting basis. The IAA recognizes and understands the complex interplay of the various design matters involved in the MAV approach. All elements of the design need to fit together. As such, shopping for design elements from various sources may not result in a MAV that works as intended. In contrast, the IAA believes that reference to some of the decisions already made in preparation for IFRS 17, which also are in keeping with the objectives for MAV, makes sense. See the detailed response to Q 32 for specifics. 3. The IAA recommends that the next version of the ICS include a comprehensive description of the treatment of participating (with profits) and similar business, including its valuation, provision for future bonuses/dividends and their impact on capital requirements in contrast to similar non-participating policies. Many IAIG's have substantial blocks of par business for which the present value of future dividends (a useful yardstick in discussing adjustability) is such a large amount that using even a portion of it (say 50%) as a credit in the ICS can significantly affect an IAIG's ICS solvency position.

GAAP+ Approach (Section 4.2; Q 33-47) Outstanding items: Review of Questions 39, 40, 42-3

1. If GAAP+ includes a reasonable MOCE, the IAA believes the resulting measurement of company net worth or surplus should be about the same magnitude as the measurement under the MAV approach subject to duration matching. However, the numbers may differ to the extent one is on a current market value basis while the other is not fully on an economic basis. Within each approach the assets and liabilities are valued consistently if the following caveats are addressed outside of the ICS valuation basis. They include: a. The assumption that the assets and liabilities are duration matched. The degree of duration (and/or convexity) mismatch should be able to be found/addressed in the ORSA documents to determine whether this is a material issue b. Duration matching may have three competing objectives. The ORSA or some other reporting mechanism should be able to identify and document the relative priority given to weighting statutory vs. economic vs. GAAP reported earnings and surplus. c. The ability to assess volatility of the risk/exposure to options and guarantees embedded in the insurance contracts is more limited in the GAAP+ approach and should be able to be addressed via an ORSA review.

MOCE (Section 4.3; Q 48-66)

1. The IAA has long supported the concept that an insurer should maintain sufficient capital in addition to its current estimate obligations to provide for a one-year shock at a high confidence level as well as additional funds post shock to allow the business of a failing insurer to be passed along to a succeeding insurer (i.e., see "Global Framework for Insurer Solvency Assessment", IAA 2004, paragraphs 2.16-2.18). Translating that concept into a workable valuation framework, however, has to be done in a manner consistent with the underlying assumptions and purpose of the valuation framework. The CD has been very helpful in identifying and working through these issues. 2. The IAA understands the need for the valuation of insurance obligations for supervisory reporting purposes to include a MOCE in addition to the current estimate. The focus of IAA comments on the CD primarily relates to the soundness of the combined total of the ICS MOCE and capital requirements, taken together (i.e., total balance sheet focus), rather than on the "correctness" of the MOCE by itself. 3. The CoC MOCE makes the (perhaps) optimistic, assumption that market and credit risks are largely hedgeable and therefore there is no need for a CoC MOCE for these risks, especially if risk free rates are used for discounting the insurance liabilities. If this approach to MOCE is maintained the capital requirement for market and

credit risks must be carefully designed and calibrated to capture the ALM risks arising from mismatched portfolios, the risks (and margins) arising from participating (with profits) business and the non-diversifiable market risks associated with variable annuities with guarantees. (See IAA response to Q 56) 4. Feedback from our members familiar with CoC assumptions used in the sale of blocks of life/annuity business in Canada, Australia and Hong Kong indicates that the CoC assumption used in recent transactions is consistent with the ICS suggested use of 5%. The IAA notes that different CoC assumptions are also being used in various areas. Examples include (1) the valuation of P&C claim liabilities for purchase accounting, (2) goodwill impairment testing required under some versions of GAAP, (3) some sale/purchase evaluations performed in the U.S. While some of our members support the proposed 5%, indicative of the approximative aspect of this concept, the choice of a different cost of capital rate is certainly justifiable and reflected in actual practice. Once the rate is chosen, while there is not a need to mirror/track market risks through a cycle (i.e. pegged to economic indices) it would be appropriate to reflect regime changes (such as post 2008) in resetting the CoC rate as the cost for insurance risk is more stable over time than is the cost of market risk. 5. IFRS allows the company to determine the spread between the discount rate and the total expected return on assets based on the characteristics of its insurance contracts. ICS specifies the same rate for everyone. We recognize that for fixed payment streams using the same set of discount rates for all cash flows is a universally accepted principle; however, there are several issues with this when applied to insurance: a) The same spread is not appropriate for everyone because the risk-sharing or participating provisions in contracts differ between insurers. b) We understand the IFRS determined spread to be a long term assumption that will not fluctuate based on current market spreads if those spreads are expected to be mean-reverting over time and experience is managed through participation over time. c) As a minor issue, even for non-participating contracts, the appropriate size of the spread is debatable and will thus have some inherent bias. d) The market consistent discount rates are most appropriate for valuing "today's" desired transactions. In the event of a mandated insurance transfer of business, the regulator has a longer time horizon and the buyer recognizes that it is not buying a liquid investment, but one that will be managed over a long time horizon. Also, the assets currently being used to manage the business will be transferred along with the liabilities. Lastly, whether the policyholder should expect only a guarantee or a reasonable continuation of dividends/bonuses after the transfer is key to setting the desired ultimate regulatory calibration here. 6. In insurance the solvency supervisory target has historically often been to successfully run-off a failing, legal entity insurer. Solvency II's philosophy is instead that of a going concern group basis which includes a capacity to refinance with an implicit need/expectation to continue writing new business. Each framework (and their underlying valuation basis) will need to be tailored with other important elements. While the G-SII's have been defined to be capitalized on a going concern basis and many non-IAIG firms are defined to be capitalized on a run off basis, what are the IAIG's meant to be calibrated to? The G-SII level, the legal entity level or somewhere in between? One conceptual challenge for IAIG's to meet a going concern objective will be the existing legal issues associated with transferring an entire book of IAIG business existing in many jurisdictions, whether that be to another IAIG or to an internationally active buyer, seeking to trade in multiple regulatory jurisdictions.

Reinsurance (Section 4.4; Q 67-69)

1. Reinsurance that provides effective risk mitigation in times of crisis should be allowed for by the ICS framework even if it does not meet the strict rules for insurance accounting.

Target Criteria (Section 6.2)

1. The IAA is generally supportive of several key design aspects of the ICS Version 1.0 (e.g. total balance sheet approach, use of one-year shock horizon, and VaR at a high confidence level such as 99.5%) as these are common features of modern capital requirements on a run-off basis for single entities. As communicated by the IAA to the IAIS on several occasions (as early as 2004), the IAA accepts VaR as a practical compromise needed for a simple standardized approach but remains of the belief that TVaR is a better risk measure. The IAA also reminds though that the use of confidence levels as a benchmark is not a precise number in a real sense. The results for insurance risk can have much less precision in them than is implied by the use of a confidence level such as 99.5%.

Risk Mitigation (Section 6.3; Q 91-98)

1. The use/recognition of hedges beyond those currently held is needed for a framework not based on market values.

Management Actions (Section 6.5; Q 100-103)

1. The IAA notes that the credit to be given to participating contracts with dividends (bonuses) appears (in the CD) to equal 100% of the present value of currently projected dividends, For many life insurers with such products, this present value can be a large amount and provide a very significant capital credit in comparison with a comparable

non-participating contract. Given reasonable policyholder expectations for bonuses/dividends as well as competitive pressures, some regulatory jurisdictions favour a run off of guarantees as an acceptable resolution and others would like to target a going concern of continuing "reasonable" dividends/bonuses after a resolution. Thus the jurisdiction's regulatory "risk appetite" preference and its legal requirements will indicate whether 100% of dividends is too large a credit under a shock scenario.

Mortality Risk (Section 6.6; Q 104-109)

1. The IAA recommends that the longevity risk component include a trend factor of .75% per annum. 2. Both the life and morbidity risk components are almost exclusively driven by calamity (pandemic) risk. The IAA recommends that this be reflected in the aggregation method.

Morbidity/Disability (Section 6.7; Q 111-122)

1. The IAA believes that the stress levels are too high for health insurance and the associated geographical variation is not supported by any evidence and thus seems somewhat arbitrary.

Lapse (Section 6.8; Q 123-131)

1. As long as actuaries update mortality and morbidity assumptions after the occurrence of mass lapse rates, the procedures for determining lapse shock capital requirements are reasonable. 2. Given that life insurance contracts may vary directionally in their sensitivity to lapses, a simple one direction lapse shock may increase insurance liabilities for some contracts and decrease it for others. Canada, for example, already requires insurers to apply the lapse shock in the direction that increases the insurance liability at the contract level for every duration. It is also true that actual lapse behavior that may appear sub-optimal to the policyholder from the company's perspective is optimal based on information known only to the policyholder (e. g. taxes, other assets)

Expense Risk (Section 6.9; Q 132-139)

1. Different types of expenses are subject to alternative risks. For example, a great deal of expense, being of a strictly variable nature (such as agent commissions), will not vary in the future other than directly with its corresponding metric - there is no need to further stress those expenses. Fixed and semi-fixed expenses should be stressed in scenarios in which insurance units, such as volume of new business, will be affected.

Premiums and Claims (Section 6.10; Q 140-151)

1. The IAA recommends the use of actual rather than projected premiums for premium risk assessment 2. Calibration of risk factors and their dependency relationships should continue to be reviewed. Indeed, the IAA recommends that ICS should ensure that, ultimately, all risk factors are calibrated based on data, to the extent credible. 3. There is a detailed combined discussion of risk charge calibration and dependency in our answer to Q151, with the recommendation that IAIS should test the HHI approach (explained therein) as an alternative to the correlation matrix approach.

Catastrophe Risk (Section 6.11; Q 152-164)

1. Several catastrophe risk charges appear overstated (e.g., treatment of General Liability and Products Liability risk, as well as that for Health Insurance) and it is argued in this response that the latent liability risk charge for Workers Compensation coverage in the United States should be 0. 2. The IAA strongly supports allowing the use of catastrophe models but recommend some additional safeguards, set forth in the response document, regarding validation and monitoring of results.

Market & Credit Risk (Section 6.12; Q 165-197 & Section 6.13; Q 198-204)

1. It is not clear to the IAA that the GAAP+ and MAV versions of market risk provisioning are similar. For cases where liabilities are carried at fair (market consistent) value and an AOCI is appropriately applied to translate the assets to fair value they should be aligned. This assumes, however, that the AOCI is appropriately calculated and the IAA review suggests that this will not necessarily be trivial to arrange. Further, for cases where liabilities are at non-market consistent value and an AOCI adjustment is applied to align assets and liabilities better, it is less clear whether the two will be similar, as the IAA struggled to understand how the AOCI adjustment would in practice be identified and applied. 2. It is not clear to the IAA that the GAAP+ and MAV versions of market risk usefully capture ALM risk resulting from different cash flow patterns in the assets and liabilities. Given just the material in the ICS CD, it is not clear that the market and credit risk sections capture all aspects of own credit risk (see detailed response). Further, they may also not handle credit spread risk in as comprehensive a manner as might be desirable (again see detailed response for specifics). 3. The IAA finds the explanation of the AOCI adjustment given in the ICS CD confusing. We are unsure whether GAAP+ versions that include an AOCI adjustment will treat interest rate ALM risks effectively. In particular, we

suggest exploring whether it works in situations where insurers have leeway to select how assets and/or liabilities are to be treated under the relevant GAAP. Recent related BCBS material suggests that in a Pillar 1 context, robust handling of ALM risks if assets and liabilities are not in effect fair valued may be challenging.

Operational Risk (Section 6.14; Q 205-208)

1. The IAA agrees that the exposure measure for operational risk needs to reflect the business of the undertaking. 2. An emerging best practice is to assess operational risk charges after a qualitative ranking of a variety of operational risk exposures into high, medium and low buckets.

Aggregation/Diversification (Section 6.15; Q 209-216)

1. Regardless of the significant complexities involved with aggregation/diversification, the IAA believes there is little doubt that some level of diversification credit is appropriate in the ICS. It would also seem prudent to leverage off an existing diversification structure for which there has been extensive calibration and industry input. The SII structure on which the ICS diversification structure appears to be built is one possible starting point, although further work is needed (Version X.0?) to appropriately implement this in the context of a global ICS. 2. A key IAA issue is whether the proposed aggregation structure is suitable for all major insurance markets including North America, growing markets in Asia and the EU. If the proposed ICS structure fails to recognize (even to a limited degree) key risk dependencies in a major market, then the ICS risks producing inappropriate (perhaps low; perhaps high) capital requirements for these markets. See the IAA responses on the need to correct the dependencies with respect to lapse risk and calamity risk. 3. The IAA believes it is very important that insurers model and stress test their risk dependencies on a routine basis. Such modelling and testing should be important elements of insurer and insurance group (including at the head of the group) ERM and capital management. ORSA is a useful tool for reporting the results of such testing. The actuarial function is a vital source of advice on these matters to both insurers and insurance groups.

Tax (Section 7; Q 217-235)

1. Due to the complexities of income taxes across a variety of jurisdictions, the relationships between consolidations, tax loss carrybacks, tax loss carryforwards, ownership structure (current and future) and variations of interpretations, it is difficult to derive reliable tax projections for an IAIG. Consequently, the IAA recommends that the ICS standard approach be conducted on a pre-tax basis. IAIG tax specificities would be addressed as part of group supervision reviews using IAIG data and filings such as the ORSA.