5.1 MAV approach

Q10 Section 5.1 With reference to both paragraphs 82b and 82c, would another approach (for example, making line-by-line proportional consolidation a requirement where further specific conditions exist, or where required by the GWS) be more appropriate?

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
Insurance Europe	Europe	No	No	Insurance Europe would support a limit to the available consolidation methodologies, and notes the IAIS's proposals for proportional consolidation contained in Paragraphs 79 and 82c of the consultation.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	GFIA would support a limit to the available consolidation methodologies, and notes the IAIS's proposals for proportional consolidation contained in Paragraphs 79 and 82c of the consultation. With regard to Paragraph 82b, if an IAIG is complying with GAAP or IFRS in all respects for SPVs, it should be able to report an ICS balance sheet on the same basis in that respect.
Dai-ichi Life Holdings, Inc.	Japan	No	No	

General Insurance Association of Japan	Japan	No	No	Please refer to our comments on Q8 and 9.
The Life Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Legal & General	UK	No	No	Proportional line by line consolidation is overly burdensome. Full consolidation with minority interest (or single line equity accounting) is already provided for under local IFRS and therefore is a more efficient way of generating this information.
Association of British Insurers	United Kingdom	No	No	The ABI would support a limit to the available consolidation methodologies, and note the IAIS's proposals for proportional consolidation contained in Paragraphs 79 and 82c of the consultation.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this approach compares for the field testing volunteers it is difficult to support this approach.
RAA	United States and many other jurisdicitons	No	Yes	We would support consolidation consistent with US GAAP or IFRS with respect to SPV's. Such an approach would be preferable to proportional consolidation.
Prudential Financial, Inc.	United States of America	No	Yes	Using proportional reporting would better capture true risk for the group for each type of entity.
Liberty Mutual Insurance Group	USA	No	No	Liberty Mutual strongly opposes any approach involving the MAV as being unrealistically costly to implement, among many other objections.

Property Casualty Insurers Association of America (PCI)	USA	No	No	No. We believe in this instance that the CSFWG is best positioned to answer its own question. In the case of 82c, paragraph 77 (second bullet) indicates that field testing has shown some situations where material insurance or financial risk "may not be captured." We are not privy to that field testing data. A further look by the CSFWG may reveal some commonality that could provide the basis for objective criteria to apply proportional consolidation. Conversely, it is not clear from paragraph 77 if the field testing revealed a compelling need for improvements that would materially improve comparability, and therefore we would simply suggest deleting paragraph 82c. With regard to paragraph 82b, and as stated in our response to Q82, we believe that if an IAIG is complying with GAAP (or IFRS) in all respects for SPVs, it should have a safe harbor and be able to report an ICS balance sheet on the same basis in that respect.

Q11 Section 5.1 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 provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	The balance sheet is the starting point for a risk based prudential regime. In this sense, the valuation principles should support this regime by addressing the appropriate risks. In

				constructing the balance sheet, the overriding principle should be “substance over form”. The valuation base should be consistent with the manner in which the capital requirements are determined. In addition, Insurance Europe notes the following material areas of divergence: (1) For ICS a top-down approach for deferred tax is applied, whereas for existing GAAP and statutory accounts, it is calculated bottom up. (2) Intangible assets are written off for ICS (with the exception of an allowance for software costs). Insurance Europe would welcome the inclusion of the value of intangible assets in the ICS where they meet specific criteria agreed with its supervisor.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	Material areas of divergence are as follows: (1) For ICS a top-down approach for deferred tax is applied, whereas for existing GAAP and statutory accounts, it is calculated bottom up. (2) Similar to principles under Solvency II, fair value adjustments from IFRS in ICS should be subject to materiality and proportionality. (3) Intangible assets are written off for ICS (with the exception of an allowance for software costs). GFIA recommends flexibility in allowing the inclusion of the value of intangible assets where they meet specific criteria agreed with the regulator. (4) The unallocated surplus in participating funds is treated as an equity item in Solvency II. The treatment of unallocated surplus in Solvency II also does not have an associated tax balance as policyholder movements in the balance sheet have been taxed as they arise in the income statement.

International Actuarial Association	International	No	Yes	The Insurance Regulation Committee of the IAA is concerned that for property/casualty insurance, the accounting for structured settlements (as part of claim settlement) is handled inconsistently across accounting frameworks. The structured settlements at issue here are those purchased by the non-life insurer, whereby the annuity company pays the claimant the annuity cash flows and the non-life insurer is contingently liable if the annuity company defaults. (For example, the claimant files a claim against the non-life insurer's policyholder. Rather than paying the full policy limit of, say, $300,000, the non-life insurer buys an annuity on behalf of the claimant for some amount at or less than $300,000.) These are treated in some accounting paradigms as paid losses (for the annuity purchase price) by the non-life insurer, with the amount at risk if the annuity company defaults being recorded as a contingent liability. In US GAAP, in contrast, the annuity purchase is treated as a reinsurance premium with the future annuity cashflows treated as a claim liability with an equal and offsetting reinsurance recoverable asset. Since the total amount of these contingent liabilities can be over $1billion for an IAIG, this can be a material issue that is not currently addressed by the ICS. We recommend treating these for ICS purposes as contingent liabilities, consistent with, for example, US statutory accounting and Canadian GAAP accounting, rather than as reinsurance (i.e., US GAAP practice). The non-life insurer is not involved in any of the cash flows or administration of the annuity obligation in these situations, which makes it difficult for the non-life insurers to run various scenarios on the cash flows. The only cash flows the non-life insurers are involved with for these items are those arising upon an annuity company's default, with those cash flows reduced by the extent of relevant guaranty fund participation, if any. While we expect additional divergences may exist with other local GAAP's we were not able to identify them in the time needed for responding, but expect those localities so impacted will identify them.
Dai-ichi Life Holdings, Inc.	Japan	No	No	
General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	No	

Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Legal & General	UK	No	No	No comment provided.
Association of British Insurers	United Kingdom	No	Yes	Material areas of divergence are as follows: (1) For ICS a top-down approach for deferred tax is applied, whereas for existing GAAP and statutory accounts, it is calculated bottom up. (2) Similar to principles under Solvency II, fair value adjustments from IFRS in ICS should be subject to materiality and proportionality. (3) Intangible assets are written off for ICS (with the exception of an allowance for software costs). The ABI recommends flexibility in allowing the inclusion of the value of intangible assets where they meet specific criteria agreed with the regulator. (4) The unallocated surplus in participating funds is treated as an equity item in Solvency II. The treatment of unallocated surplus in Solvency II also does not have an associated tax balance as policyholder movements in the balance sheet have been taxed as they arise in the income statement.
National Association of Mutual Insurance Companies	United States	No	Yes	The MAV approach does not work well for property/casualty companies. Since this entire ICS was primarily designed with life and annuity IAIGs in mind, it does not address the specific differences between the different lines of business. By far the large majority of property/casualty policies and claims are short-duration. Policy terms are predominantly one year or less, with the longest terms in the U.S. three years. Claims payments are largely made in less than a year as well. Such short duration contracts are not at all well-suited to discounting, complex yield curves, MOCE, an expected liability approach, or an asset-based bucketing system. The risk on the property-casualty side of the business is in the liabilities and not the assets, so discounting and ALM do not provide the

				appropriate protections and only serve to complicate the situation adding excessive cost without adding value. While this current version of MAV provides a simplified non-life unearned premium reserving methodology, it does not similarly address the need for a simplified claim liability reserving methodology. Clearly the need for change has been previously discussed and acknowledged by the IAIS in earlier stakeholder meetings, and perhaps discounting for non-life liabilities is addressed in the field testing specifications, but this is a point that must be clarified. The definition of "current estimate" provided in footnote 15 does not provide any confidence that the issue is addressed. When the draft identified a three-bucket approach NAMIC was optimistic that one of the buckets would be used to address the differences between life and non-life or long duration and short duration. But this was not the case. The changes to P-MOCE in section 5.2.1.2 acknowledging the prudence margins available in some jurisdictions were only required because of the elimination of prudence margins included in Paragraph 90 using the current estimate definition. This was a perfect example of the unnecessary complexity of the MAV approach. The MAV approach to valuation completely fails to accurately address the risks for property/casualty companies, especially those in the U.S. and even more specifically those like mutual insurers that do not use a GAAP or IFRS approach. The complexity that is added by requiring this MAV approach creates many more problems than it solves. This is where flexibility including the use of a GAAP+/ SAP+ approach is just mandatory to make this ICS 2.0 work.
RAA	United States and many other jurisdicitons	No	Yes	GAAP differs significantly among jurisdiction in many areas including definition of contract boundaries, consolidation criteria, definition of reinsurance and reinsurance risk transfer, deferred taxes, fair value measurement and asset impairments and intangible assets, among others. These issues are not yet completely addressed in the ICS which uses many "placeholder" approaches to address them. As a result, the ICS is not nearly yet fit for purpose, or ready for use in the monitoring period.

				The aggregation method being developed in the U.S. should be considered for comparability with the MAV-based, standard method ICS on a supervisory outcomes basis. The aggregation method should be considered concurrently with the internal model approach, which RAA also supports. To reiterate, we believe that the ICS is far from being fully developed and tested yet and as such we do not support rushing into the monitoring period. The ICS ratios should be stabilized first. More needs to be understood on how ICS would impact (a) internal risk management and (b) on the wider economy, including the impact on long-term investment and economic growth.
American Academy of Actuaries	United States of America	No	Yes	For property/casualty insurance, the accounting for structured settlements (as part of claim settlement) is handled inconsistently across accounting frameworks. The structured settlements at issue here are those purchased by non-life insurers whereby the annuity company pays the claimant the annuity cash flows and the non-life insurer is contingently liable if the annuity company defaults (e.g., the claimant files a claim against the non-life insurer's policyholder. Rather than paying the full policy limit of, say, $300,000, the non-life insurer buys an annuity on behalf of the claimant for some amount at or under $300,000). These are treated in some accounting paradigms as paid losses (for the annuity purchase price) by the non-life insurer, with the amount at risk if the annuity company defaults being recorded as a contingent liability. In United States Generally Accepted Accounting Principles (US GAAP), in contrast, the annuity purchase is treated as a reinsurance premium with the future annuity cash flows treated as a claim liability with an equal and offsetting reinsurance recoverable asset. The total amount of these contingent liabilities can be over $1 billion for an internationally active insurance group (IAIG), hence this is a material issue that is not currently addressed by the ICS. We recommend treating these for ICS purposes as contingent liabilities, consistent with U.S. statutory accounting and Canadian GAAP accounting, rather than as reinsurance (i.e., U.S. GAAP practice). Because the non-life insurer is not being involved in any of the cash flows or administration of the annuity obligation in these situations, it is difficult for such non-life insurers to run various scenarios on the cash flows. The only cash flows the non-life insurers are involved with for these items are those arising when an annuity company defaults, with those cash flows reduced by the extent of relevant guaranty fund participation.

Prudential Financial, Inc.	United States of America	No	No	
Property Casualty Insurers Association of America (PCI)	USA	No	No	None of which we are aware that would be of such significance to matter.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	GAAP differs significantly amongst jurisdictions, both in principles and in the method of their application. For example, definition of contract boundaries, consolidation criteria, definition of reinsurance, etc. could differ amongst jurisdictions. Not all material items have been identified. We understand that these are being analyzed through ongoing field testing and review of qualitative questionnaire from volunteers.

Q12 Section 5.1 Is the current specification of the treatment of expenses in the calculation of current estimate sufficiently detailed to ensure consistent calculations among IAIGs? If “no”, please suggest which points could be further refined.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	Precisions could indeed be added to the proposed treatment of expenses in order to ensure consistent calculations among IAIGs. For instance, the expense allocation could be detailed: - Concerning the granularity of allocation of expenses, it could be added that IAIGs should allocate the expenses into homogeneous risk groups according to the segmentation of their obligations used in the calculation of current estimate of insurance liabilities.

				- Changes in the approach to the split of overhead expenses should be limited to cases where a new approach better reflects the current situation. Otherwise, IAIGs should always allocate overhead expenses to existing and future business on a consistent basis over time Moreover, the specifications could be expended concerning the projection of expenses: - The timing of expense cash flows should be consistent with the timing of other cash flows required to settle the insurance and reinsurance obligations. - IAIGs should ensure that assumptions with respect to the evolution of expenses over time are appropriate and consider the nature of the expenses involved. Inflation projections should be consistent with all economic assumptions made.
Insurance Europe	Europe	No	No	Insurance Europe proposes that expenses should be set as best estimate, and should be aligned to other metrics (eg. IFRS 17).
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	Precisions could indeed be added to the proposed treatment of expenses in order to ensure consistent calculations among IAIGs. For instance, the expense allocation could be detailed: - Concerning the granularity of allocation of expenses, it could be added that IAIGs should allocate the expenses into homogeneous risk groups according to the segmentation of their obligations used in the calculation of current estimate of insurance liabilities. - Changes in the approach to the split of overhead expenses should be limited to cases where a new approach better reflects the current situation. Otherwise, IAIGs should always allocate overhead expenses to existing and future business on a consistent basis over time. Moreover, the specifications could be expended concerning the projection of expenses: - The timing of expense cash flows should be consistent with the timing of other cash flows required to settle the insurance and reinsurance obligations. - IAIGs should ensure that assumptions with respect to the evolution of expenses over time are appropriate and consider the nature of the expenses involved. Inflation projections should be consistent with all economic assumptions made.
Dai-ichi Life Holdings, Inc.	Japan	No	No	We have no concern about the specification of expense treatment. However, supervisors should confirm the validity of the every assumption used for measuring current estimate

				liability before the implementation of ICS (or during the monitoring period). In addition, this validation has to be consistent among the jurisdictions.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• The LIAJ accepts the contents of the specifications, but the overall validity of the each assumption used in the measurement of best estimate liabilities, including the treatment of expenses, should be confirmed among supervisors prior to the implementation, such as during the monitoring period, to ensure consistency across jurisdictions. In particular for items on expense, it should be clarified that only expenses for the management and maintenance of insurance policies should be included in the measurement of best estimate liabilities.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	Yes	This appears reasonable.
Association of British Insurers	United Kingdom	No	No	The ABI proposes the expenses should be set as best estimate, and should be aligned to other metrics (e.g. IFRS 17).
National Association of Mutual Insurance Companies	United States	No	No	No, the specification of treatment of expenses is too detailed in the current estimate calculation.
RAA	United States and many other jurisdicitons	No	No	An unearned premium approach for short duration (non-life) contracts would be more appropriate treatment of expenses.

Property Casualty Insurers Association of America (PCI)	USA	No	No	No. See response to Q13 regarding PCI's recommendation to simplify the premium liability by setting it equal to unearned premiums, i.e., a premium allocation approach. Among other benefits, such an approach would simplify and make more comparable the treatment of expenses for non-life IAIGs.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	At least for Non-life liabilities, an "unearned premium approach" to premium liabilities would allow for a more appropriate treatment of expenses.

Q13 Section 5.1 Are the non-life premium liability simplifications appropriate to provide an approximation of the current estimate liability? If "no", please provide details on how the simplifications could be improved.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	Paragraphs 66 to 68 of the technical specifications provide two sets of simplifications in order to obtain the current estimate of the non-life premium liability. The second simplification, paragraph 68 of the technical specifications, offers the possibility for IAIGs to consider their Non-Life Premium Liabilities (Provision) to be their UPR (Unearned premiums, i.e. the difference between written premiums and earned premiums). This treatment is simple but does not manage to provide the current estimate of the non-life premium liability. Moreover, simplifications should aim at being more conservative. However, there might be cases, when the activity is not beneficiary, where this simplification is not prudent enough. Therefore, only the first simplification, provided in paragraph 67, should be allowed.

Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	Paragraphs 66 to 68 of the technical specifications provide two sets of simplifications in order to obtain the current estimate of the non-life premium liability. The second simplification, paragraph 68 of the technical specifications, offers the possibility for IAIGs to consider their Non-Life Premium Liabilities (Provision) to be their UPR (Unearned premiums, i.e. the difference between written premiums and earned premiums). This treatment is simple but does not manage to provide the current estimate of the non-life premium liability. Moreover, simplifications should aim at being more conservative as the normal treatment. However, there might be cases, when the activity is not beneficiary, where this simplification is not prudent enough. Therefore, only the first simplification, provided in paragraph 67, should be allowed.
Global Federation of Insurance Associations	Global	No	Yes	For short-term contracts, GFIA is supportive of the simplification to set the premium liability equal to unearned premiums, i.e., a premium allocation approach. Moreover, rather than have that simplification be simply a convenience for the benefit of only a few IAIGs, GFIA recommends that the UPR method be used by all short-term contracts; it is a well-understood concept that can be easily and comparably determined in a transparent manner, certainly much more so than the full cash flow projection methodology.
International Actuarial Association	International	No	Yes	The Insurance Regulation Committee of the IAA recommends that all IAIGs utilize these simplifications. The use of future cash flow estimates for this liability is prone to variable interpretations with regard to the treatment of underwriting expenses other than claim adjustment expenses. Most other underwriting expenses are up-front with regard to a policy, and not directly related to the servicing of an in-force policy. Hence, differing views regarding when these underwriting expenses (including overhead) allocated to a policy are paid, or even if any of these expenses should be allocated to and treated as future expenses for in-force policies, will result in non-comparable capital requirements across IAIGs.
General Insurance Association of Japan	Japan	No	No	While simplification is appropriate for short-term contracts, it is inappropriate for long-term contracts as it fails to reflect interest gains and losses. Also, the MAV insurance liabilities should allow the use of insurance liabilities based on the

				premium allocation approach (PAA). The validity of such an approach is audited for jurisdictional GAAPs which adopt IFRS 17.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	Yes	We have no issues with this.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers we are unable to answer this question. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
RAA	United States and many other jurisdicitons	No	Yes	We support the simplification to set the premium liability equal to unearned premiums, i.e., a premium allocation approach for short-duration contracts and recommend that the UPR method be used by all short-duration contracts. The UPR approach is a well-understood concept that would be more comparable and transparent than the full cash flow projection methodology.
American Academy of Actuaries	United States of America	No	Yes	We recommend that all IAIGs utilize these simplifications. The use of future cash flow estimates for this liability is prone to variable interpretations with regard to the treatment of underwriting expenses other than claim adjustment expenses. Most other underwriting expenses are up-front with regard to a policy, and not directly related to the servicing of an in-force policy. Hence varying views of when these underwriting expenses (including overhead) allocated to a policy are paid, or even if any of these expenses should be allocated to and treated as future expenses for in-force policies, will result in non-comparable capital requirements across IAIGs.
American Property Casualty Insurance Association (APCI)	USA	No	No	The proposed approach is overly complex, and it would be difficult to implement in a comparable manner across jurisdictions.

				To address comparability concerns, it would be preferable to use a premium allocation approach instead. Under a premium allocation approach, premium liability is set to equal unearned premiums. This approach to measuring premium liability is more simple, well-understood, and better-suited to fit within existing jurisdictional standards, which is critical for the sake of comparability.
Property Casualty Insurers Association of America (PCI)	USA	No	No	For short-duration contracts, we are supportive of the simplification to set the premium liability equal to unearned premiums, i.e., a premium allocation approach. Moreover, rather than have that simplification be simply a convenience for the benefit of only a few IAIGs, we recommend that the UPR method be used for all short-duration contracts; it is a well-understood concept that can be easily and comparably determined in a transparent manner, certainly much more so than the full cash flow projection methodology.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Both simplifications lead to more comparable results than the "full calculation".

Q14 Section 5.1 Should the IAIS modify the treatment of premium receivables, as proposed? Please provide sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	We suggest that maintain the definition of premium receivables in GAAP, and IFRS 17 in future. Using a consistent approach with GAAP would reduce additional measurement and analysis work, which may often have limited impact on results.

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	We agree with the new proposed treatment. As a general rule, IAIGs should establish the future premium cash-flows contained within the contract boundaries at the valuation date and include within the calculation of its current estimate liabilities those future premium cash-flows which fall due after the valuation date. However, in order to be prudent, IAIGs should treat premiums which are due for payment by the valuation date as a premium receivable on its balance sheet until the cash is received.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	We agree with the new proposed treatment. As a general rule, IAIGs should establish the future premium cash-flows contained within the contract boundaries at the valuation date and include within the calculation of its current estimate liabilities those future premium cash-flows which fall due after the valuation date. However, in order to be prudent, IAIGs should treat premiums which are due for payment by the valuation date as a premium receivable on its balance sheet until the cash is received.
General Insurance Association of Japan	Japan	No	Yes	We support the IAIS proposal. Any deduction from assets should be limited to those reflected in cashflow at the valuation of insurance liabilities.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Legal & General	UK	No	No	We are comfortable with the current treatment and would not support an arbitrary haircut being applied to premium receivables. It is not clear why an IAIG should not be able to benefit from future premium receivables as long as these are determined on suitable assumptions, and possible variation of these is allowed for within capital requirements. Treating receipt of future premiums differently to other future cashflows would not seem internally consistent.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers we are unable to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.

RAA	United States and many other jurisdicitons	No	Yes	For short-duration contracts, the same treatment should be extended to premium receivables and unearned premiums.
Prudential Financial, Inc.	United States of America	No	No	Regardless of the time period with which the receivable relates to it is still a component of expected liability cash flows and should be included as a component of the valuation process. We request the IAIS provide stakeholders the rationale behind the proposal so it can be more appropriately assessed.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	We agree. Similar treatment should also be extended to unearned premiums on (at least) cancellable policies. The underlying issue here is that too many unrelated policyholder cashflows are being included with the "current estimate". Already "Policy Loans" have been given their own line. The same treatment should be extended to premium receivables and unearned premiums.

Q15 Section 5.1 Are there any other further comments regarding the MAV approach (excluding the discounting component) that the IAIS should consider in the development of ICS Version 2.0? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments

CLHIA	Canada	No	Yes	The CLHIA supports the total balance sheets approach, including, per footnote 13 of the ICS, the interdependence of all assets, all liabilities, all regulatory capital requirements and all capital resources. We believe this interdependence attribute necessarily leads to alignment in the valuation bases for assets and liabilities and reflection of asset/liability practices. As an overarching comment, we believe that the current design of the three Buckets does not sufficiently reflect ALM practices.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	Regarding contract boundaries, economic substance should prevail over legal form. IAIGs should be allowed to reflect all future premiums in the technical provisions if they are able to demonstrate that these premiums are likely to be paid.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	GFIA takes the view that the MAV approach can only be successful if the valuation of the liabilities appropriately reflects the insurer's ALM practices. GFIA recognises the efforts that the IAIS has taken to develop the Three Bucket Approach as an Adjustment to the prescribed risk-free rates, which provides recognition of firms' ALM practices. However, GFIA takes the view that further refinements to the Three Bucket Approach are necessary to achieve a successful implementation of the MAV approach. It proposes further investigation and refinement in the following two key areas: (1) The methodology used to calculate the Adjustment within each bucket – A number of

				aspects of the methodology require further consideration, including the recognition of non-fixed income assets and recognition of internal credit ratings. (2) The eligibility criteria for each bucket – A comprehensive review of the criteria is needed to ensure that the liabilities can be categorised in a manner reflecting their nature. Additional guidance from the IAIS on its intentions is required. GFIA is concerned with the increasing complexity of the MAV approach for non-life IAIGs, and encourages the IAIS to simply calculate the premium liability by setting it equal to unearned premiums for short-term contracts. The current approach is inherently complex, invites a variety of assumptions by different IAIGs and is unlikely to provide any comparability across non-life firms just based on MAV – it will serve to exacerbate differences between MAV and other methods. GFIA would also note that any proposed adjustment methodology needs to be tested, both in current market conditions as well as in stressed market environments. This is necessary to ensure that the proposal works as intended and any potentially unintended consequences can be avoided.
International Actuarial Association	International	No	Yes	We appreciate that given the diversity of practice on gain at issue, we think the choices for the IAIS are to either not allow it all, or to specify the same method for all or to, at best, consider it a Tier 2 asset as in Solvency II.The Insurance Regulation Committee of the IAA recommends that the calculation of capital resources should not take credit for expected profit on in-force or bound non-life policies before the related insurance service has occurred (consistent with IFRS 17 and with Revenue Recognition accounting standards).
General Insurance Association of Japan	Japan	No	Yes	From the viewpoint of ensuring the credibility of figures and minimizing workload, the valuation of insurance liabilities and assets under management should allow the use of figures based on the IFRS, except in cases where the effect of adjustments is significant, such as a change in the discount rate. Specifically, with regard to insurance liabilities, calculation of future cashflow based on the building block approach (BBA), and the use of figures using PAA should be allowed.

The Life Insurance Association of Japan	Japan	No	Yes	• The LIAJ accepts the contents of the specifications, but the overall validity of the each assumption used in the measurement of best estimate liabilities, including the treatment of expenses, should be confirmed among supervisors prior to the implementation, such as during the monitoring period, to ensure consistency across jurisdictions.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	With respect for the policy loan, the policy loan proportion among insurers' total asset is generally not smaller than 10% in the Korean insurance market. However, the measurement methodology for the policy loan is not specified within the ICP2.0. The measurement needs estimation for a new loan, a loan interest rate, and repayment before maturity. The ICS2.0 should prescribe the methodology to be used to estimate the three factors to strengthen comparability between insurers.
Legal & General	UK	No	Yes	We are broadly supportive of the current treatment of Final Salary Pension Schemes within the MAV approach.
Association of British Insurers	United Kingdom	No	Yes	The ABI supports the use of a MAV approach as a basis for the valuation of assets and liabilities within the ICS. However, we stress that this approach can only be successful if the valuation of the liabilities appropriately reflects the insurer's ALM practices. The ABI recognises the efforts that the IAIS has taken to develop the Three Bucket Approach as an Adjustment to the prescribed risk-free rates, which provides recognition of firms' ALM practices. However, we believe further refinements to the Three Bucket Approach are necessary to achieve a successful implementation of the MAV approach. We propose further investigation and refinement in the following two key areas: (1) The methodology used to calculate the Adjustment within each bucket – A number of aspects of the methodology require further consideration, including the recognition of non-fixed income assets and recognition of internal credit ratings. (2) The eligibility criteria for each bucket – A comprehensive review of the criteria is needed to ensure that the liabilities can be categorised in a manner reflecting their nature. Additional guidance from the IAIS on its intentions is required.

				The ABI would also note that any proposed adjustment methodology needs to be tested, both in current market conditions as well as in stressed market environments. This is necessary to ensure that the proposal works as intended and any potentially unintended consequences can be avoided. The ABI is further concerned with the increasing complexity of the MAV approach for non-life IAIGs, and encourages the IAIS to simply calculate the premium liability by setting it equal to unearned premiums for short-term contracts. The current approach is inherently complex, invites a variety of assumptions by different IAIGs and is unlikely to provide any comparability across non-life firms just based on MAV – it will serve to exacerbate differences between MAV and other methods.
National Association of Mutual Insurance Companies	United States	No	Yes	See comments to question 7 and 11.
RAA	United States and many other jurisdicitons	No	Yes	The MAV approach is not nearly yet “fit for purpose” for use in the monitoring period. The MAV 3 bucket approach was included in ICS field testing for the first time in 2018 and it is overly ambitious to expect this methodology will be fit for purpose for ICS 2.0 without significant additional testing and development. The RAA and other observers have many concerns about bucketing, including unsupported decisions about eligibility within and among buckets, insufficient alignment with actual ALM and ERM practices, and an excessively conservative result. Following are some additional specifics: The methodology used to calculate the Adjustment within each bucket – These aspects require further consideration, including the recognition of non-fixed income assets and recognition of internal credit ratings. The eligibility criteria for each bucket – These aspects require further consideration to ensure that the liabilities can be categorized to reflect their nature. The RAA is concerned with the increasing complexity of the MAV approach for non-life IAIGs. The current approach is inherently complex, invites a variety of assumptions by different IAIGs and is unlikely to provide any comparability across non-life groups just based on MAV. Rather, it is more likely to exacerbate differences between MAV and other

				methods. We encourage the IAIS to simply calculate the premium liability by setting it equal to unearned premiums for short-term contracts. Finally, failure to consider alternative and comparable approaches to the MAV, such as the NAIC's proposed aggregation method for use by the U.S. is a significant problem. A consolidated MAV-based ICS will be entirely inconsistent with the U.S. supervisory system, will be unaligned with the many proven tools and processes which state insurance regulators use in all other aspects of their work and in which they have extensive experience, and risks sending mixed signals that conflict with inputs from all those other tools and processes. The aggregation method being developed in the U.S. should be considered for comparability with the MAV-based, standard method ICS on a supervisory outcomes basis. The aggregation method should be considered concurrently with the internal model approach, which RAA also supports. Adopting a consolidated, MAV-based ICS without an AM comparability determination therefore would not lead to better supervisory outcomes in the U.S. but would certainly lead to dramatically-high implementation costs. An ICS that is not implementable by all major markets will necessarily fail to be an IAIS standard that is consistently implemented and effective in practice. We believe it is critically important that the comparability of an aggregation method (AM) advocated by the U.S. to the ICS be assured.
American Academy of Actuaries	United States of America	No	Yes	We believe that the calculation of capital resources should not take credit for profit on in-force or bound non-life policies before the related insurance service has occurred (consistent with IFRS 17 and with Revenue Recognition accounting standards).
Prudential Financial, Inc.	United States of America	No	Yes	We note that while a "one-size-fits-all" approach may facilitate comparability it will not necessarily offer information of value. Indeed, such approaches could produce misleading information and work contrary to the intended objective. As noted in our overarching remarks and elsewhere in our response to the consultation we believe the ICS remains deeply flawed and absent improvement, likely to serve as a disincentive for proper asset liability management (ALM) and be highly prone to non-economic volatility, procyclicality and inaccurate measures of an internationally active insurance groups (IAIG's) risk exposures and loss absorption capacity (i.e., false positives and negatives). Such outcomes are in

				direct conflict with numerous “ICS principles” the IAIS alleges it is using to guide its work on the project.
American Property Casualty Insurance Association (APCI)	USA	No	Yes	Geographical diversification should be better reflected in the ICS.
Liberty Mutual Insurance Group	USA	No	Yes	The MAV approach should be abandoned.
MetLife, Inc	USA	No	Yes	While we recognize that conservatism in a prudential context is appropriate, MetLife has consistently argued against the application of a strict legal definition of contract boundaries to select products, including short-term renewable products, starting with the BCR and carried over into the ICS. As was the BCR MAV approach, the ICS MAV approach is an economic approach based on realistic, best estimate assumptions and observable data. The stated basis for the MAV approach is that it should be an economic view of our businesses, based on realistic, best estimate assumptions and observable data. The basis for the liabilities is to be without conservatism or margins (explicit or implicit). Applying the strict legal interpretation of a contract boundary means that companies are required to assume that all of their short term, renewable business lapses at the next policy anniversary/renewal date. In our view this leads to assumptions of events that are extremely unlikely to ever occur in practice, are inconsistent with an economic view of our business and with best estimate assumptions and observable data. The current ICS application of a strict contract boundary means that when we model short duration / renewable businesses, we do not get an economic result. We get a result that is inherently conservative and we are implicitly being much more conservative on some businesses (e.g. renewable contracts) than we are on others (long term contracts). In addition, if prudential margins are moved back into technical reserves, the result will be one level of prudence on long term businesses, but explicit margin on top of implicit margins on renewable contracts.

Property Casualty Insurers Association of America (PCI)	USA	No	Yes	Yes. We are concerned with the increasing complexity of the MAV approach for non-life IAIGs, and encourage the IAIS to simply calculate the premium liability by setting it equal to unearned premiums for short-duration contracts, i.e., a premium allocation approach as described in our response to Q13. The current approach is inherently complex, invites a variety of assumptions by different IAIGs and is unlikely to provide any comparability across non-life firms just based on MAV, further exacerbating differences between MAV and other methods which will, inevitably, due to the "reference method" means to assess comparability, will be misconstrued as a deficiency of those other methods.

Q16 Section 5.1 Is the set of criteria appropriate to support the choice of instrument for Segment 1 of the base yield curve? If "no", please provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	

General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Aegon NV	The Netherlands	No	Yes	In particular if the ICS is a supplementary standard (which we do not support), we would encourage the IAIS to seek alignment with local regimes that discount liabilities at market rates (e.g. Solvency II for EUR and GBP) to ensure that hedging targets are aligned.
Legal & General	UK	No	Yes	This appears reasonable.
Association of British Insurers	United Kingdom	No	Yes	Segment 1 of the base yield curve is the liquid segment based on market information, which ends at the Last Observed Term (LOT). The ABI notes the revised set of criteria proposed to inform the choice of instrument for this segment, and considers them to be appropriate.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	Provided there is sufficient market liquidity we believe government bond rates should be used rather than swap rates. This approach would better align the valuation of assets and insurance liabilities given that the supporting asset portfolios are largely made up of cash bonds, not derivatives. For example, government bond rates should be used for GBP given its liquid market.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have

				the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q17 Section 5.1 Is the LOT defined for each of the 35 currencies appropriate? If “no”, please provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
CLHIA	Canada	No	No	The Last Observed Term (LOT) for Canada should be based on the 30-year (vs. 20-year) term as the 20-year term is less liquid. Plus, the LOT should ideally be consistent among like geographies and reflect market practice.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
Insurance Authority (IA)	China, Hong Kong	No	No	There are some long duration government bonds issued by emerging markets but such markets are deemed illiquid. This has resulted in a large mismatch between the actual asset yield and the underlying base yield curve used to compute liabilities
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	Yes	

German Insurance Association	Germany	No	Yes	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Aegon NV	The Netherlands	No	Yes	In particular if the ICS is a supplementary standard (which we do not support), we would encourage the IAIS to seek alignment with local regimes that discount liabilities at market rates (e.g. Solvency II for EUR and GBP) to ensure that hedging targets are aligned.
Legal & General	UK	No	Yes	We do not have any issues with these.
Association of British Insurers	United Kingdom	No	Yes	The ABI notes that the LOT (which sets the end of Segment 1 of the base yield curve) is no longer capped at 30 years, but reflects the last maturity for which the market of the chosen instrument is deemed to be deep, liquid and transparent. This is aligned with the approach used to determine the Last Liquid Point (LLP) under Solvency II, and we consider it to be appropriate.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this

				question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	We believe that the LOT should be defined as the “last observable point” (typically of a government bond market) rather than “last maturity for which the market of the chosen instrument is deemed to be deep, liquid and transparent” as defining the latter depends on subjective judgment. Our proposed approach would maximize the use of observed data and bring alignment with principles prescribed by the FASB’s Targeted Improvements to accounting for long duration contracts and IFRS 17. Our proposed definition would likely lengthen the LOT for markets such as Japan, Korea and Chinese Taipei. FASB on yield curve market data: An insurance entity should not substitute its own estimates for observable market data unless the market data reflect transactions that are not orderly. (source: FASB Accounting Standards Update No. 2018-12, Financial Services – Insurance (Topic 944), Targeted Improvements to the Accounting for Long-Duration Contracts, August 2018) IFRS17 on yield curve market data: IFRS 17 does not require a particular estimation technique for determining discount rates. In applying an estimation technique, an entity shall:(a) maximize the use of observable inputs and reflect all reasonable and supportable information on non-market variables available without undue cost or effort, both external and internal. In particular, the discount rates used shall not contradict any available and relevant market data, and any non-market variables used shall not contradict observable market variables. (source: IFRS Standards – IFRS 17 Insurance Contracts, May 2017)
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q18 Section 5.1 Is the methodology to determine the convergence point (end of Segment 2) appropriate for ICS Version 2.0? If “no”, please provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	The convergence point for RMB is the 60th year and the length of segment 2 is 50 years. It is too long for RMB and we suggest to reduce it. The reasons are as follows: 1)In Chinese market, assets that can be used to match liabilities longer than 20 years are very limited. Thus a large amount of liability cash flows falls into segment 2 and is subject to market interest volatilities (due to the extrapolation of market interest rates in segment 1). Such volatility is not manageable by insurers, and the longerthe segment 2 is set, the larger the liability volatility will be brought in.. 2)The aim of segment 2 is to smoothly grade the market interest rates to LTFR, the convergence period should be sufficiently long to get a well smoothed curve; however, the period should not be too long to artificially bring in extra volatility to the valuation. In any case, the interest level after LOT is unknown and the judgement on convergence period should be moderate.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	Yes	
German Insurance Association	Germany	No	Yes	

Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Aegon NV	The Netherlands	No	No	In particular if the ICS is a supplementary standard (which we do not support), we would encourage the IAIS to seek alignment with local regimes that discount liabilities at market rates (e.g. Solvency II for EUR and GBP) to ensure that hedging targets are aligned. At the moment GBP uses a later Solvency II convergence point than ICS.
Legal & General	UK	No	Yes	This appears reasonable.
Association of British Insurers	United Kingdom	No	Yes	The ABI notes that the length of Segment 2 (extrapolation between LOT and LTFR) is no longer set to finish at 60 years for all currencies, but is instead calculated using a formula. We consider this to be a more appropriate method of determining the convergence point.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	We view the fixed 60-year convergence point used in 2017 Field Test to be more appropriate. The convergence point is when the forward rate is expected to reach its long-term assumption. In our view, a fixed convergence point allows for more consistency in how curves are extrapolated rather than being contingent on the LOT.

				We note that this suggested methodology would lead to effectively the same fixed 60-year convergence point for all currencies, except for GBP, in the 2018 Field Test.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q19 Section 5.1 Is the revised methodology to determine the LTFR appropriate for ICS Version 2.0? If “no”, please provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
CLHIA	Canada	No	No	The expected real interest rate used to determine the LTFR in ICS is based on the average of observed historical real rates of return across all developed markets. This level of aggregation is too broad, and relative to assumptions currently used in local GAAP and capital requirements, results in segment 3 of the base yield curve being materially too low in some jurisdictions. For example, the inclusion of both North America and Japan in the same category has produced the result of 3.8% being too high in North America, and too low in Japan. For Canada, this creates a substantial disconnect with our local regulatory capital regime (“LICAT”). The construct of LICAT is similar to the ICS in many ways, notably the three segment construct for discount rates. However, since the IAIS averaged the real rate of return over all developed countries, instead of an average based on Canada + U.S. as in LICAT, the LTFR for Canada is 3.8% in ICS, as compared to the “UIR” of 4.5% in LICAT. Therefore, the CLHIA highly recommends that the categorization of countries be more

				granular for the LTFR in particular (U.S. and Canada only should comprise one category), and in general, all capital requirements should be calibrated at a suitably granular geographic groups of countries. In the development of LICAT, consideration was given to using both forward rates and spot rates for segment three. LICAT ultimately landed on spot rates. We encourage the IAIS to ensure it has thoroughly considered both bases before finalizing which of forward rates and spot rates to utilize in segment three.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	We support the LTFR to move from relying on OECD studies to a data driven approach, and we understand that due to the lack of availble data, the IAIS now employs one average real interest rate for all developed market currencies and the other one average rate for all emering market currencies. However, as the interst rate is one of the most important assumpitons with material impacts on liability valuation, we still recommend that the IAIS should further explore the possibility to set specific real interest rate for each currency.
Insurance Authority (IA)	China, Hong Kong	No	No	Suggest to distinguish more currencies when determining the LTFR, particularly Asian currencies.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	

The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	Since the LTFR methodology is based on a macroeconomic approach, the LTFR should reflect a difference in terms of individual country's economic development level. Therefore, the long-term economic growth expectations for the LTFR should be based on a jurisdictional real interest statistics rather than a few developed countries' average. Another option is to further divide the developed countries group into a major developed countries group and a developed countries group.
American Council of Life Insurers	Office of General Counsel	No	No	The expected real interest rate used to determine the LTFR is based on the average of observed real rates of return across all developed markets. This level of aggregation is too broad, and relative to assumptions currently used in local GAAP and capital requirements, results in segment 3 of the base yield curve being materially too low in some jurisdictions e.g. North America, and too high in others. The use of non-geography specific risk corrections, and broad corporate spread market groupings results in unrealistic adjusted spreads for certain geographies. In addition, these adjusted spreads are subsequently added to segment 1 of the base yield curve, which has been derived using a different market grouping, creating more geography/market level inconsistencies. We believe the appropriate approach is to use a currency specific term structure of default. Real rates of returns, corporate spreads and risk adjustments are market specific, and these assumptions should be determined at the market-level. We recommend that these assumptions are determined based on the market grouping used to determine segment 1 of the base yield curve, which would ensure internal consistency in the overall MAV discount rate.
The Life Insurance Association of the Republic of China	CHINESE TAIPEI	No	No	□For some jurisdictions with long-term liabilities and shorter LOT, the determination of LTFR level is extraordinarily crucial to the liability valuation and therefore simplified grouping average may not be appropriate. We propose the expected real rates to be determined by each jurisdiction when the data is publicly disclosed and attains satisfying credibility. As a result, the jurisdictional characteristics can be genuinely reflected.

				1.1 Simplified DM/EM framework would lead to twisted solvency results for those jurisdictions whose solvency is rather sensitive to the interest rates. Yield curve construction is one of the key factors to insurance liability valuation, especially for jurisdictions where liabilities are rather long-term and LOTs are relatively short. The oversimplified method may result in twisted solvency results. Under the current DM/EM framework, one can find, through the observation on the historical average real rates, that not all the DM jurisdictions have lower figures compared to EM jurisdictions. It can then be inferred that the current oversimplified design may give rise to biased solvency results. 1.2 We suggest using jurisdictional empirical data, given it is publicly disclosed and from credible source, to calculate average real rates. For Chinese Taipei, the historical average real rate is as high as 2.6%. Historical average real rate of Chinese Taipei from 1975 to 2017 would be 2.6%. The above figure has proved the current 1.8% real rate for Chinese Taipei is underestimated and the DM/EM framework may fail to reflect jurisdictional characteristics. The LTFR 3.8% for Chinese Taipei is then deviated from what it is supposed to be and may lead to overestimation on liabilities. We believe it is more appropriate to calculate real rates by each jurisdiction if it can more accurately deliver the jurisdictional characteristics and capture material risk IAIGs are exposed to. □As the average real rates are diverse within both the Developed market (DM) and Emerging market (EM) groups, we suggest at least separating “Major DM”, by IMF definition, from current DM and defining the rest as “Other DM”. The average real rates of “Other DM” is then 2.4%. 2.1 Separating Major DM from DM and the group the rest as Other DM. The average real rates of DM are widespread (gap of maximum and minimum for DM is 3.5% and 13% for EM) and applying a simple average to all DM jurisdictions may have underestimation on jurisdictions with higher real rates and vice versa. The IMF defines US,

				UK, Japan, Canada, Italy, France and Germany as Major Advanced Economies. Accordingly, we classify those 7 jurisdictions as “Major DM” and the rest jurisdictions in DM as “Other DM”. 2.2 Recalculation suggests 1.8% real rate for Major DM and 2.4% for Other DM Recalculation of average real rates is conducted based on Organization for Economic Co-operation and Development (OECD) database, where only jurisdictions with data more than 30 years are used, resulting 1.8% and 2.4% average real rates for “Major DM” and “Other DM” respectively. We therefore suggest a more granular grouping for expected real rate determination to better capture the difference among jurisdictions.
Aegon NV	The Netherlands	No	No	Presuming that the ICS is a supplementary standard (which we do not support), we welcome the alignment in methodology of determining the LTFR with how the UFR is determined for Solvency II. However, the expected real rate is not determined similarly for both and we would encourage to seek alignment there as well in order to get to the same LTFR/UFR for both frameworks.
Legal & General	UK	No	Yes	This appears reasonable.
Association of British Insurers	United Kingdom	No	Yes	The ABI notes that the determination of the LTFR still follows a macroeconomic approach; however, long-term growth/inflation expectations have been replaced by expected real interest rates, as these are deemed a better proxy for future asset returns. We consider this revised methodology to be appropriate.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	We do not agree with all of the LTFRs used in the 2018 Field Test. + Setting one common real rate for all developed markets does not differentiate economic

				characteristics among various countries. The same is true for emerging markets. + In setting inflation component of LTFR, besides inflation target, the IAIS should also consider historical inflation and a broad set of subject matter experts´ forecasts. For example, the LTFR for Japanese yen (3.8%) is much higher than current interest rate levels and does not appear reasonable. While the Bank of Japan has a 2% target, inflation in Japan over the last 20 years has been persistently below that level except for short periods under temporary influence from market crisis or one-off tax policy changes.
MetLife, Inc	USA	No	No	The revised risk free LTFR methodology results in all developed markets being grouped together (e.g. EU, Japan, Korea and US) and thereby inconsistent LTFRs for economies within this group resulting in inappropriate capital ratios. It is unreasonable for Japan to have the same LTFR as Korea for example. Japan has experienced prolonged low interest rates and inflation for over the last 20 years. Based on historical data since 1991 from the Bank of Korea, the LTFR is estimated at 5.5% in contrast with the IAIS LTFR assumption of 3.8%. This is a very important assumption for a long-term businesses in Japan and Korea and could lead to a significant overstatement of the value of the liabilities. The LTFR methodology should be set centrally by the IAIS but the calibration of the country specific LTFRs should be carried out by the relevant supervisors for each country/region, using data that is specific to that economy. The IAIS should be responsible for ensuring the relative differences between the calibrated LTFRs is consistent with the economic fundamentals underlying the different economies.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	The current LTFR methodology takes central banks' inflation targets and couples them with the real rate of return using short term rates for the various jurisdictions, without making an allowance for term premium. Also, evidence has suggested that these central banks' target rates are not a good predictor of future actual inflation. Rather than combining a short term rate with a long term inflation target, it would be preferable to use historical evidence of long term rates as a starting point.
Actuarial Institute of Chinese Taipei, AICT	Chinese Taipei	No	No	Determination of LTFR should be more granular and tailor to each jurisdiction with application of respective credible data Jurisdictions with longer term insurance liability and shorter LOT exhibit higher sensitivity to LTFR. The current LTFR determination methodology should be adjusted further to incorporate more granular and tailored jurisdictional factors of the respective market. The methodology for determining LTFR that based on taking average real interest rate of the jurisdictions classified within the same DM or EM group may lead to inappropriate indicator of the insurance group's solvency. Empirical data on average real rate has shown evidence of circumstance that some DM jurisdictions had higher real rate than some EM jurisdictions, which contradicts to the current design where EM real rate is higher than DM. As a result, applying average real interest rate from a group of jurisdictions with large variation in real interest rate does not constitute an appropriate representation of the real interest for a specific jurisdiction within the group. Appropriate granularity of data and jurisdiction specific factors should be considered when designing the ICS framework, especially when developing LTFR methodology. To correct the issue, we have come up with two ideas. Firstly, to appropriately account for the economics of the life insurance business and diversity of insurance markets around the world, transparent and credible jurisdictional data could be used for determination of LTFR. For Chinese Taipei, the average real rate from 1975-2017 was 2.6%, which is considerably higher compare to 1.8% real rate under the current DM/EM framework, which also implies a possibility of overestimation of liabilities and hence inappropriate indicator of the insurance solvency. Secondly, to prevent future misrepresentation of insurer solvency, we proposed to breakdown the current DM group into "Major DM" and "Other DM" subgroups. As the average real rates for DM jurisdictions are widely dispersed (the difference between the

				highest and lowest real rate among the DM jurisdictions is 3.5% and 13% for the EM jurisdictions), taking simple average of representative DM jurisdictions for determination of real interest rate could lead to distorted result of the individual jurisdiction. Base on IMF definition, US, UK, Japan, Canada, Italy, France and Germany are classified as Major Advanced Economies, we proposed that those 7 jurisdictions be grouped as "Major DM" jurisdictions and the remaining be classified as "Other DM" jurisdictions. Recalculating average real rate based on OECD database, the resulting average real rates for "Major DM" and "Other DM" are 1.8% and 2.4% respectively (For Other DM, only jurisdictions with more than 30 years data are included in the average). Allowing sufficient level of granularity, the LTFR applied appear to be more approximate to historical experience and suggest a better indication of the specific jurisdiction's real interest rate level.

Q20 Section 5.1 Is the methodology to reflect LTFR updates in the IAIS base yield curves appropriate for ICS Version 2.0? If "no", please provide details.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	Insurance Europe notes that the LTFR is intended to be a stable long-term parameter used to derive the illiquid part of the risk-free curves. Annual changes to the LTFR are unnecessary and only serve to introduce spurious accuracy into the framework.

				There is no evidence to suggest that annual changes to the LTFR will help the ICS meet its main objectives of policyholder protection and contributing to financial stability. Insurance Europe believes that updates to the LTFR should only be made after a sufficient period of time, eg 10 years, has passed which could influence any change in this parameter. Any changes required after the reassessment should be introduced incrementally with a maximal annual change of 10 basis points to maintain the stability of this parameter.
German Insurance Association	Germany	No	No	The LTFR is intended to be a stable long-term parameter used to derive the illiquid part of the risk-free curves. Annual changes to the LTFR are unnecessary and only serve to introduce spurious accuracy into the framework. There is no evidence to suggest that annual changes to the LTFR will help the ICS meet its main objectives of policyholder protection and contributing to financial stability. We believe that updates to the LTFR should only be made after a sufficient period of time, eg 10 years, has passed which could influence any change in this parameter. Any changes required after the reassessment should be introduced incrementally with a maximal annual change of 10 basis points to maintain the stability of this parameter.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Global Federation of Insurance Associations	Global	No	No	The LTFR is intended to be a stable long-term parameter used to derive the illiquid part of the risk-free curves. Annual changes to the LTFR are unnecessary and only serve to introduce spurious accuracy into the framework. There is no evidence to suggest that annual changes to the LTFR will help the ICS meet its main objectives of policyholder protection and contributing to financial stability. GFIA takes the view that updates to the LTFR should only be made after a sufficient period of time, e.g. 10 years, has passed.

				Any changes required after the reassessment should be introduced incrementally, with a maximum annual change of 10 basis points to maintain the stability of this parameter.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Aegon NV	The Netherlands	No	Yes	This part of the methodology is fully aligned with the Solvency II approach and preserves the stability of the LTFR over time.
Legal & General	UK	No	Yes	This appears reasonable.
Association of British Insurers	United Kingdom	No	No	The LTFR is intended to be a stable long-term parameter used to derive the illiquid part of the risk-free curves. Annual changes to the LTFR are unnecessary and only serve to introduce spurious accuracy into the framework. There is no evidence to suggest that annual changes to the LTFR will help the ICS meet its main objectives of policyholder protection and contributing to financial stability.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.

Prudential Financial, Inc.	United States of America	No	Yes	We do not believe the methodology for determining the LTFRs is appropriate (as noted in our response to question 19) however, we appreciate the decision to ensure stability in the LTFRs over time through the application of a 15-bps limit for annual updates. Please note, while we agree regular updates should be subject to 15-bps limit, we believe updates resulting from methodology enhancements should not be constrained by the same limit.
MetLife, Inc	USA	No	No	See our response to Q 19 above.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q21 Section 5.1 Are there any further comments regarding the base yield curve methodology that the IAIS should consider in the development of ICS Version 2.0? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	Aggregation of real rate of return across all developed countries is too broad, and results in real rate of return assumptions that are too low for North America. We recommend that these assumptions are recalibrated using geography-specific assumptions.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	The current yield curve methodology where the liquid part of the curve is based on swaps/government bonds and the illiquid part is determined by extrapolation towards a LTFR (using the Smith Wilson methodology) is the appropriate solution and has to be maintained.
German Insurance Association	Germany	No	Yes	The yield curve methodology (liquid part based on swaps/govies, illiquid part determined by extrapolation towards a LTFR, using Smith Wilson algorithm) is the appropriate solution and has to be maintained.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	No	
General Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Aegon NV	The Netherlands	No	Yes	The answers above are given under the assumption that the ICS serves as a supplementary standard. The answers make clear that if our group were indeed expected to meet multiple regulatory solvency targets, we would have to make risk management compromises which would undermine policy holder protection. This stresses the need for an ICS approach that does not result in multiple standards.

Legal & General	UK	No	No	No further comments.
Association of British Insurers	United Kingdom	No	No	
National Association of Mutual Insurance Companies	United States	No	Yes	The ICS is not yet fit for purpose. Significant additional work is needed to achieve an appropriate global capital standard and it may be completely unachievable. The Valuation method, appropriate risks and and their factors should be determined by the local jurisdictional supervisor. NAMIC disagrees with the mandate of a standard method, the 99.5% VaR calibration level and the IAIS dictating the factors to be used in the formula. Jurisdictional flexibility is the appropriate way to capture these risks with mutual recognition and shared understanding of the jurisdictional approach at supervisory colleges.
Prudential Financial, Inc.	United States of America	No	No	
American Property Casualty Insurance Association (APCI)	USA	No	Yes	As with several other questions posed in the CD, it is difficult to answer this question without the experience of being a field testing participant.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Consideration should be given to using a term specific spread rather than anchoring the spread at the 10 year point.

Q22 Section 5.1 Are any practical difficulties foreseen in the implementation of the proposed multi-bucket approach (eg issues with products that are close to the boundaries of the buckets)? If “yes”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Association of Bermuda Insurers and Reinsurers	Bermuda	No	Yes	In general, we are not supportive of the proposed bucketing concept; believing it to be an artificial quick fix that does not solve any of the underlying issues and in the process damages global comparability. In our view, it forces companies to artificially segment their balance sheet. We propose that at a minimum within the ICS there should be an option to use a single valuation approach to the whole balance sheet without having to revert to the ‘general bucket’ of the current bucketing approach.
Canadian Institute of Actuaries	Canada	No	Yes	This approach requires bucketing of asset and liability cash flows into granular term buckets to assess degree of matching for top/middle bucket. This may not be practical to implement in many jurisdictions and would likely pose challenges regarding auditability. Of note, this approach will not be practical under IFRS 17, which by design does not require asset cash flow information.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	Insurance Europe strongly supports the development and inclusion of an appropriate adjustment to the risk-free curve to reflect the long-term nature of insurance contracts and to mitigate artificial balance sheet volatility. An adjustment to the risk-free curve is a prerequisite of a MAV balance sheet approach as it creates the necessary link between the

				insurer's assets and liabilities which is fundamental to the life insurance business model. It is essential that the adjustment incentivises good ALM practices and is reflective of the economic reality. Any eligibility criteria and restrictions should be proportionate to the prudential concerns that they aim to address. Insurance Europe recognises the efforts that the IAIS has taken to develop the Three Bucket Approach as an adjustment to the prescribed risk-free rates which recognises firms' ALM practices. Insurance Europe therefore considers that the bucketing approach, with suitable refinements, could ultimately fit well specific liability profiles and insurers. It also notes that some insurers manage risk and run ALM at a global business level without segmenting liability profiles; for these insurers, the current approaches for the general and middle buckets appear unlikely to be able to reflect appropriately their ALM strategies and the economics of their business. Against this background, the IAIS should ensure that ICS 2.0 works across jurisdictions and product types. Insurance Europe notes that the proposed bucketing approach has the potential advantage of enabling IAIGs to calculate portfolio specific adjustments where individual liability characteristics warrant this. However, the IAIS should continue to investigate other approaches given the additional complexity introduced of using multiple buckets. Insurance Europe continues to support an own assets / own spreads approach, with appropriate guardrails, for the Top Bucket, along the lines of that tested as part of the 2018 field testing exercise. Such an approach ensures that insurers can construct a bespoke adjustment that reflects their business model within a prudentially sound framework. While the current design of the Middle-Bucket provides a good starting point for further development, significant improvements are required. These improvements should address the following key issues: • All long-term liabilities, which are not eligible for the Top Bucket but which are subject to prudent asset-liability management, should be eligible for the Middle Bucket Adjustment. The criteria governing the Middle Bucket can be designed to incentivize good risk management without being unnecessarily restrictive. • The Middle Bucket Adjustment should recognise the contribution of long-term equity, property, infrastructure and other non-fixed income assets within prudentially sound ALM approaches. • There should be an appropriate allowance within the Adjustment for reinvestment of assets

				to reflect the long-term spreads which an insurer can earn. Insurance Europe encourages the IAIS to explore different methodologies to derive the Middle Bucket Adjustment, for example, by deriving an adjustment which reflects the illiquidity of liabilities per currency. One possible option could be to adapt the concept of the IFRS17 bottom-up approach to fit within the ICS framework. Given the high degree of basis risk inherent in the use of a reference portfolio, the IAIS should aim for as few liabilities as possible to only be eligible for the General Bucket. Insurance Europe welcomes the inclusion of the Basis Risk Mitigation Mechanisms to mitigate the balance sheet volatility in periods of localised market stress. Insurance Europe further believes that any proposed adjustment methodology needs to be tested, both in current market conditions as well as in stressed market environments. This is necessary to ensure that the proposal works as intended and any potentially unintended consequences can be avoided. Additional comments on the IAIS's proposals are detailed below.
German Insurance Association	Germany	No	No	We appreciate the dynamic illiquidity adjustment. For the middle bucket, we propose to consider deriving an illiquidity adjustment aligned with the bottom-up method in IFRS 17 as an alternative method.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	See our answers to the following question(s).
Global Federation of Insurance Associations	Global	No	Yes	The current eligibility criteria for the Middle Bucket in the 3-bucket option are difficult to evidence, especially the full cash flow testing requirement. Instead, a qualitative evidencing of ALM practices (subject to sound governance and controls) should be used to determine eligibility.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	IAIS should accept the simplification method that all short-term insurance liabilities, which are little affected by discount rates, can be classified as general bucket. And IAIS should concentrate on the discussion about treatment of mid-long term insurance liabilities, which are largely affected by discount rates.

				Three-bucket approach may classify two insurance liabilities with almost same but a little different characteristics into different buckets. As a result, level of discount rate become largely different, and this cliff effect might harm the level-playing field. Furthermore, the same insurance liability might be classified into different bucket each year, so ICS ratio would become volatile and stable risk management by insurance company would be difficult. OAG reflect the degree of ALM mismatch into discount rate continuously, so cliff effect would less occur and stable risk management by insurance company would be achievable. Based on these advantages, we would like IAIS to continue to develop OAG and consider the possibility of adoption of OAG.
General Insurance Association of Japan	Japan	No	Yes	Taking into account the impact and the necessary workload associated with the use of Top and Middle Buckets, insurers may wish to use the General Bucket when calculating the ICS ratio. In such a case, the requirement to verify the applicability of Top and Middle Buckets, such as calculations related to the limit on the carry forward of cash generated from an excess of asset cashflow, comes with difficulties. Insurers should be able to use the General Bucket without verification even if the liabilities meet the Top and Middle Bucket criteria.
The Life Insurance Association of Japan	Japan	No	Yes	• Regarding the bucket approach, the LIAJ concerns that the cliff effect occurs between buckets. A significant difference in discount rates due to a slight difference in product features would undermine the level playing field. The cliff effect is less likely to occur through the OAG because the mismatch situation is continuously reflected in the OAG. Along with the Three-Bucket Approach, improvements in the OAG should be targeted.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	There is no separate account based on the multi bucket of the ICS2.0, so it is impossible to segment total assets into a bucket asset. The benefits of such a separation are not large, compared with the system restructuring cost. With respect to the Top & Middle bucket methodology, the individual companies' asset portfolio application of risk spread calculation may result in an investment concentration of high-risk assets.
American Council of Life Insurers	Office of General Counsel	No	Yes	The middle bucket is a new innovation, and based on feedback from our members who participated in this year's Field Test, was largely un-implementable.

Legal & General	UK	No	Yes	In general we do not see any rationale for the Top Bucket asset eligibility to be more restrictive than local metrics (i.e. Solvency II in Europe) given the expectation that ICS will be a PCR alongside these metrics rather than replacing them. In fact we think that there are good reasons for the ICS regime to be less restrictive than some existing regimes which are widely perceived as being overly uneconomic and burdensome. It would be a very bad outcome for European firms to have to manage two similar but differently strict portfolio segmentations (i.e. Matching Adjustment Portfolio and Top Bucket where one is not a subset of the other) to get a sensible valuation result.
Association of British Insurers	United Kingdom	No	Yes	The current eligibility criteria for the middle bucket in the 3-bucket option are difficult to evidence, especially the full cash flow testing requirement. Instead, a qualitative evidencing of ALM practices (subject to sound governance and controls) should be used to determine eligibility.
National Association of Mutual Insurance Companies	United States	No	Yes	See comments to question 11.
RAA	United States and many other jurisdicitons	No	Yes	See response to Q15.
Prudential Financial, Inc.	United States of America	No	Yes	We foresee a range of challenges and areas requiring improvement within the 3-bucket approach: Clarity of Bucketing Criteria - Further clarity of the criteria is needed to ensure they are consistently interpreted and implemented across companies and jurisdictions. + Condition (b) of the Top and Middle Bucket: It is not clear whether this criterion requires legal ring-fencing of assets or just portfolio segmentation of assets supporting different product lines. We believe that it would be more appropriate to interpret this criterion as requiring asset portfolio segmentation to support different liability product lines (which would be consistent with ICP 16.5.1 and ICP 16.5.3). If this criterion is intended to require legal ring-fending of assets or more rigorous asset

				separation than currently done under the ALM practices commonly employed by insurers, most typical life insurance liabilities will not satisfy it. The IAIS must provide clarification on this point. + Condition (e) of the Top Bucket: The following clause is not clear, "… the surrender value does not exceed the value of assets covering the insurance liabilities…". The IAIS must clarify whether the qualification for this criterion is that the current market value of assets is greater than the current estimate of insurance liabilities as of the valuation date. If the answer is no, the IAIS must clarity how an IAIG is expected to prove qualification otherwise, for example, at alternative valuation date(s) or over one or a range of scenarios. In such case(s), we believe the criterion should recognize liability features, such as a Market Value Adjustment (MVA), and regard such features sufficient to qualify the underlying liabilities for this criterion. + Condition (e) of the Middle Bucket: If multiple insurance products are supported by one asset portfolio, it's not clear whether the Lapse Risk Test (ICS Lapse Risk Charge greater than 5% of the current estimate) should be performed at the individual product level or at the asset portfolio level in aggregate. The IAIS must provide clarification on this point. + Condition (d) of the Top and Middle Bucket: A clearer definition of "future premiums" is needed. For example, for fixed annuity products allowing for flexible future deposits, it's not clear whether these new future deposits should be considered as "new premiums" (in which case they would not meet the criterion of "no or contractually fixed future premiums") or "new business" (in which case they would satisfy this criterion). The IAIS must provide clarification on this point. + Condition (c) of the Top and Middle Bucket [Cash Flow Matching Criteria]: It's not clear whether this asset liability cash flow matching criterion needs to be assessed at an individual portfolio level or at a more aggregate level (e.g., business unit). We believe that the latter approach would be appropriate on the basis of practical considerations. The IAIS must provide clarification on this point.

				Availability of Asset Cash Flows - For assessing the asset-liability cash flow matching criterion (condition [c] for both the Top and Middle Buckets), asset cash flows over a 30-year horizon (and beyond) are not readily available as they are not monitored as part of a typical life insurer's ALM practice. We believe that a more appropriate measure of asset-liability matching would be key rate DV01's which are more commonly used in managing asset portfolios. Lapse Risk Test (Condition (e) for the Middle Bucket) - Performing the materiality test (the ICS Lapse risk charge less than 5% of the current estimate) may be practically challenging from a timing perspective unless the results from prior year reporting are available and can be used. The ICS Lapse risk charge would be available typically toward the end stage of the ICS calculation while the bucketing of insurance liabilities would need to be determined at the beginning stage of the calculation.
American Property Casualty Insurance Association (APCI)	USA	No	Yes	Understanding that there are several placeholders on the standard, looking at bucketing specifically within the MAV we have concerns about the bucketing concept. We believe it to be an artificial quick fix that does not solve any of the underlying issues and, in the process, damages global comparability. In our view, it forces companies to artificially segment their balance sheet.
Liberty Mutual Insurance Group	USA	No	Yes	The multi-bucket approach has been unknown to IAIGs who have not participated in field testing. It is unrealistic, at best, for the IAIS to believe it can be effectively used with so little additional testing before it becomes part of the reference ICS.
MetLife, Inc	USA	No	Yes	See our responses to Q23 and 24 below
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Field testing is likely to show that consistent application and interpretation of the the appropriate bucketing is difficult in practice.

Q23 Section 5.1 Are the eligibility criteria defined for the Top Bucket appropriate for ICS Version 2.0? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	Cash flow matching as defined in the top bucket (and middle bucket) criteria is not consistent with ALM methodologies used in practice and is not consistent with the prudent ALM practices as described in ICP 15.
CLHIA	Canada	No	No	The CLHIA questions whether the criteria, especially when viewed collectively, are too restrictive. We have heard, albeit, anecdotally, that only 1-2% of liabilities will qualify, which brings into question having the Bucket at all in the absence of relaxed criteria, more reflective of ALM practices.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
Insurance Authority (IA)	China, Hong Kong	No	No	We find that most of the common insurance products currently sold in Hong Kong cannot fulfil the eligibility criteria defined for the Top Bucket.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	

Insurance Europe	Europe	No	No	In general terms, the eligibility criteria for the Top Bucket are appropriate to guarantee prudent asset-liability management. However, Insurance Europe considers that some of the criteria should be relaxed, in particular, the asset eligibility criteria should permit the use of a wider range of long-term assets to back long-term liabilities. Please also see response to Q27 regarding the use of internal credit ratings where external credit ratings are not available.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The Top Bucket should be strictly restricted to perfect asset/liability cash flow matching. A difference of 10% is material, in particular as it is only measured up to the LOT. The requirement “Any mismatch […] does not give rise to material risks.” is too vague to limit the risks of unmatched asset/liability cash flows.
Global Federation of Insurance Associations	Global	No	No	In general terms, the eligibility criteria for the Top Bucket are appropriate to guarantee prudent asset-liability management. However, GFIA considers that some of the criteria should be relaxed – in particular, the asset eligibility criteria should permit the use of a wider range of long-term assets to back long-term liabilities. It is also important that the MAV approaches recognise internal ratings in the calculation of the liability discount rate (subject to appropriate internal governance and regulatory oversight) for assets where external ratings do not exist (such as infrastructure assets). This will permit the additional liquidity premium on these assets to be recognised by insurers who are able to manage these against illiquid liabilities. Currently, this is not permitted in the ICS, which significantly disincentivises investment in socially important asset classes, and would have a highly detrimental impact on various markets for long-term liabilities.
Dai-ichi Life Holdings, Inc.	Japan	No	No	[Technical specification] 123. E) The portfolio of insurance liabilities include no surrender option for the policyholder or only a surrender option where the surrender value does not exceed the value of the assets covering the insurance liabilities at the time the surrender option is exercised. These criteria for Top bucket regarding “no surrender option” is supposed to be required to achieve cash-flow matching, but product with low surrender value or MVA (Market Value Adjustment) would disincentive surrender, and liquidity risk regarding sale of assets for cash surrender value would be limited. Therefore, it is appropriate to recognize the product with

				cash surrender value as eligible for Top bucket if strict cashflow matching type ALM is implemented. Derivatives are not recognized as eligible assets for Top Bucket, but CF matching with derivatives is effective from the view of ALM. Because exclusion of derivatives might disincentive appropriate risk management by insurance company, derivatives should be included in the list of eligible assets.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• The requirement for "No cancellation refund" in the Top Bucket is assumed to be a requirement for achieving cash flow matching. However, for example, for products with low cancellation refund instruments or MVA mechanism, the incentive to terminate is suppressed to a certain extent, and the liquidity of assets to prepare for termination is considered to be limited. Therefore, even if there is a cancellation refund, it is considered appropriate to include it in the Top Bucket if strict matching type ALM is implemented. • The LIAJ believes the use of derivatives is an effective method to achieve strong ALM, while derivatives are not included in ALM assets in the current ICS. Derivatives should also be included in ALM assets, because the exclusion of derivatives may hamper insurance companies´ incentives for appropriate risk management.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
American Council of Life Insurers	Office of General Counsel	No	No	The criteria used to define eligibility for the top bucket are too restrictive and have an emphasis of cash-flow matching that is inconsistent with how companies conduct their ALM in practice. In particular, the emphasis on cash flow matching, as evidenced by the quantitative matching criterion eligibility test, is inconsistent with ICP 16.5.3 which states that "…ALM does not imply that assets should be matched as closely as possible to liabilities, but that mismatches are effectively managed." Other metrics, which are more in line with the insurer's ALM practices could be employed to evaluate ALM discipline, such as key rate

				duration matching. Further clarification is needed on the lapse risk criteria. For the top bucket, this involves the interpretation of "surrender value not exceed the value of assets covering the insurance liabilities." Additionally, for the middle bucket, the criterion states that the ICS lapse risk charge needs to be less than 5% of the current estimate, resulting in a circular issue that the current estimate and risk charge need to be calculated first to determine bucketing.
Legal & General	UK	No	No	In 2018 field testing we assumed that the carry forward limit of 10% for Top Bucket should be assessed based on annual asset and liability cashflows in the absence of clear guidance in the technical specifications, and we would recommend adding further wording to the technical specifications to make this clear. We believe that the carry forward of limit of 10% is excessively tight. IAIGs writing significant volumes of new business (particularly large corporate deals) are likely to find it challenging to remain within such a limit, particularly if interest rate swaps and similar instruments are not eligible to use in assessing this limit. We feel that a limit of 15% or 20% would be more appropriate, or to allow new business to qualify for Top Bucket during an initial period (say six months) without before it needs to be included in the carry forward assessment.
Association of British Insurers	United Kingdom	No	No	In general terms, the eligibility criteria for the Top Bucket are appropriate to guarantee prudent asset-liability management. However, the ABI considers that some of the criteria should be relaxed – in particular, the asset eligibility criteria should permit the use of a wider range of long-term assets to back long-term liabilities. The ABI supports an own assets / own spreads approach with appropriate guard rails for the Top Bucket, along the lines of that tested as part of the 2018 field testing exercise. Such an approach would enable insurers to construct a bespoke adjustment which is truly reflective of their businesses, within a prudentially sound framework. It is also important that the MAV approaches recognise internal ratings in the calculation of the liability discount rate (subject to appropriate internal governance and regulatory oversight) for assets where external ratings do not exist (such as infrastructure assets). This

				will permit the additional liquidity premium on these assets to be recognised by insurers who are able to manage these against illiquid liabilities. Currently, this is not permitted in the ICS, which significantly disincentivises investment in socially important asset classes, and would have a highly detrimental impact on various markets for long-term liabilities.
AIG	United States	No	No	We believe the current eligibility criteria for the top and middle buckets are based on mechanistic cash flow matching algorithms that do not align with ALM practices. Specifically, the cash flow matching criteria which is based on a carry forward assessment should be better aligned with ALM by widening the scope and increasing the liabilities qualifying for the top and middle buckets. Additionally, the current carry forward assessment criteria does not consider cumulative cash flows and, as a result, would not allow the carry forward of excess asset cash flows from previous maturities to offset potential asset cash flow shortfalls during later maturities. For ALM strategies where asset and liability cash flows are closely matched (and specifically when there is an intentional surplus) during earlier maturities, the general assumption is that excess asset cash flows from earlier maturities would be used to support liability cash flows for later maturities. We propose that the cash flow matching assessment should be based on a cumulative net asset and liability cash flows basis which would result in the recognition of excess asset cash flows from previous maturities. The qualifying criteria for the top and middle buckets should be based on relevant ALM criteria rather than on prescriptive cash flow matching requirements. Additional testing should be performed to ensure any refinements to the current eligibility criteria will be sufficient to achieve the goals of the MAV approach.
National Association of Mutual Insurance Companies	United States	No	No	See comments to question 11.
RAA	United States and many other jurisdicitons	No	No	The criteria which require assets to be managed separately should be clarified. It is also important that the MAV approaches recognize internal ratings in the calculation of the liability discount rate for assets where external ratings do not exist.
Prudential Financial, Inc.	United States of America	No	No	We believe that the bucketing of insurance liabilities is unnecessary and inappropriate. Liability discounting should reflect a full pass-through of the weighted average credit spread adjustment based on the insurer's own portfolio or an appropriately designed representative

				portfolio (i.e., a representative portfolio that is sufficiently granular and reflective of the way insurers with similar business profiles in the market invest). In addition, as noted in our response to question 22, the bucket criteria provided by the IAIS must be clarified.
MetLife, Inc	USA	No	No	Restrictive qualifying criteria set for the top bucket means it will not be available for vast majority of IAIG liabilities and appears inappropriate for a global standard.
Northwestern Mutual	USA	No	No	Because under the Three-Bucket approach the classification of liabilities by bucket and the discount rates that apply to each bucket are interrelated, we comment on the entire methodology rather than individual aspects of it. Therefore, the following comments pertain to questions 23, 24, 27, 30, and 34. These comments come from our perspective as a US mutual life insurance company whose primary liabilities are for participating whole life insurance. While we make general recommendations, the concerns we raise arise specifically from the way the Three Bucket approach treats US participating whole life insurance When valuing assets and liabilities, the yield curves used to discount future cash flows need to be consistent with the risk characteristics of those cash flows. See, e.g., ICP 14.2.2. While the Three-Bucket approach recognizes that the discount rates used to value liabilities should vary depending on the risk profile of the liabilities, it fails to appropriately classify liabilities by risk profile and set discount rates accordingly. The approach also fails to maintain consistency between the valuation of assets and liabilities. Because of these issues, the approach will lead to spurious volatility in financial results and improper valuations of contractual guarantees. Specifically, the Top and Middle Bucket criteria place too much emphasis on cash flow matching. This limited view of risk ignores that asset and liability risks can be well matched even if cash flows do not appear to be, and vice versa. To demonstrate this, consider the following examples. • A participating contract that transfers risk to the policyowner can appear to have a cash flow mismatch based on a comparison of expected asset and liability cash flows. However,

				as experience changes, the non-guaranteed elements of the contract will be adjusted such that net cash flows will be relatively stable under a wide range of possible scenarios. • A non-participating contract which does not transfer risk to the policyowner can appear to have well matched cash flows based on a comparison of expected asset and liability cash flows. However, as experience changes, net cash flows will fluctuate much more than what they would for the participating contract in the prior example. Other concerns with the Top and Middle Bucket criteria include: • Not allowing liabilities involving future premiums or surrender options with the potential for the surrender value to be greater than the value of the underlying assets in the Top Bucket is overly restrictive. These characteristics alone do not necessarily indicate riskier liabilities. • Having a criterion in the Middle Bucket based on the lapse risk from the ICS calculation is concerning, given the extreme nature of the mass lapse stress test (see our response to question 84). To appropriately classify liabilities based on risk and value them under a MAV framework, the criteria in the Three-Bucket approach should be replaced by criteria that provide a more holistic view of risk and consider the amount of risk transferred to policyowners vs. retained by the company. One simple way of accomplishing this would be to base the classification on how well the effective duration of assets and liabilities are aligned. Because effective durations consider how cash flows vary as interest rates change, they would provide a better measure of the match between assets and liabilities and would reflect the transfer of interest rate risk from a company to a policyowner. While this change would improve the classification of liabilities under the Three-Bucket approach, a more ideal solution would consider how sensitive cash flows are to shocks to all key risk factors, not just interest rates. This more comprehensive approach would not necessarily need to add overly burdensome complexity to the valuation, as the sensitivity measure could be tied directly to the scenarios used to calculate the ICS capital requirement. The mechanics for determining spread adjustments within the three buckets also include

				elements that, unless revised, will cause an insurer's liability discount rate to deviate from reflecting the true risk characteristics of the firm's liabilities and assets. These elements include: 1. Absence of credit for equity investments in establishing the spread adjustment; 2. Lack of clear linkage between application ratios and risk characteristics of the three buckets; 3. Lack of transparency on the origin of the provided spreads, and insufficient granularity in the spreads applicable to the middle and general buckets, which should vary by more characteristics such as asset type (e.g., public, private, mortgage loans) and tenor; and 4. Excess conservatism in the middle and general bucket spreads. Additionally, the discrete breakpoints created by the Three-Bucket approach mean that liabilities on the borderline between buckets will see large swings in valuation results with small changes in conditions. A continuous approach would avoid these "cliff effects". As indicated in the prior sections, incremental changes could be made to help improve the Three-Bucket approach. However, we believe a better solution exists that would address the key limitations of the Three-Bucket approach while still adhering to the core principles underlying its development. Under this alternative solution, the discount rate curve used to value liabilities would be set as follows: • First, a gross discount rate curve would be set that reflects the total expected return on a portfolio of assets like those the company actually invests in. This curve would reflect a blend of all the kinds of assets in the portfolio. Due to the subjectivity of expected returns on assets like equities, rules would need to be developed to standardize the expected returns on such investments for purposes of developing the gross discount rate curve. • Next, a baseline valuation of the liabilities and a baseline ICS capital requirement calculation would be performed.

				• Then, the baseline ICS capital requirement would be converted into a risk charge. This risk charge would be calculated by applying a cost of capital factor to the ratio of the baseline ICS capital requirement to the baseline liability value. For example, if the ratio of the ICS capital requirement to the liabilities is 8% and the cost of capital factor is 5%, then the resulting risk charge would be 0.40%. Rules would be developed to standardize how the cost of capital factor is set. • Finally, the risk charge calculated in the prior step would be deducted from the gross discount rate curve to come up with the final adjusted discount rate curve. We proposed this alternative in our response to the 2016 ICS consultation based on our field testing learnings that year, and we renew our recommendation here. Again, our primary concern in making this recommendation is that the ICS valuation methodology appropriately recognize the features of US participating individual whole life insurance by which risk is shared between the company and the policyowner. The alternative we propose does this by better identifying the true risk profile of the liabilities and adjusting the discount rate accordingly. It considers all key risks, not just interest rate risk, and reflects how much risk is transferred to policyowners vs. how much is retained by the company. In addition, by being company-specific both in terms of the initial gross spread adjustments to the risk-free curve and the risk charge deducted from those gross spreads, it improves consistency in valuation of assets and liabilities. And, by avoiding discrete break points, it reduces unwarranted volatility in financial results.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	The criterion which requires assets to be managed separately must be clarified. Some stakeholders believe it means ring fencing; others are unsure of its precise application. See also comment regarding carry-forward in relation to the middle bucket.

Q24 Section 5.1 Are the eligibility criteria defined for the Middle Bucket appropriate for ICS Version 2.0? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	See Q23.
CLHIA	Canada	No	No	Similar to our answer to Question 23, the CLHIA questions whether the criteria are too restrictive, as we have heard, albeit anecdotally, that a substantial majority of liabilities will fall into the General Bucket. We encourage the IAIS to share with the broad stakeholder group, for their comments, the results of the 2018 Field Testing which will indicate proportions of liabilities falling into each of the three Buckets before finalizing the details of the Buckets. More generally, as noted to in our response to Question 15, the CLHIA remains concerned with the overall middle bucket design that currently in effect promotes a disconnect between the assets and liabilities.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	

Insurance Authority (IA)	China, Hong Kong	No	No	We are investigating the appropriateness of the Middle Bucket eligibility criteria for insurance products currently sold in Hong Kong as part of our QIS2 exercise, the results of which are currently being reviewed.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	The eligibility criteria for the Middle Bucket are too onerous and too narrowly defined. This has resulted in the Middle Bucket not being tested or tested with significant uncertainty. Insurance Europe proposes the following changes for further investigation: (1) Removal of criterion (b) from the 2018 Field Testing Technical Specifications (requirement to manage assets and liabilities separately). Optimal ALM practices dictate the management of assets on an aggregate level rather than an individual product level. (2) Replacement of strict cash-flow matching as per criterion (c) with the requirement to demonstrate and evidence the use of sound ALM policies with appropriate governance, or asset adequacy testing with the use of an easier to calculate metric of key rate duration matching. (3) Reconsideration of criterion (f) (requirements on surrender options and lapse risk). There is insufficient justification for these criteria as currently designed. They are also impractical to evidence in practice. (4) Extension of the asset eligibility criteria: the approach taken for the Middle Bucket needs to be consistent with economic reality and appropriately reflect assets held, as basis risk is introduced as soon as a firm moves away from own assets. It is essential that the approach adopted also recognises and incentivises prudent asset liability management. In doing so, IAIS should ensure that it does not create incentives that would deter insurers from investing in assets that are appropriate to hold within a portfolio to match the liabilities of business such as equity and infrastructure assets.
German Insurance Association	Germany	No	No	The hierarchy of eligibility criteria within the three bucket approach currently seems to reflect the degree to which a strict cash flow match of asset and liability cash flows is possible. However this approach does not reflect the key characteristics of long-term business models, where assets can be held to maturity (no forced sales), and short-term market fluctuations of the underlying assets are irrelevant, regardless of a strict cash flow match.

				The recognition of a spread adjustment is only contingent on the absence of forced sales, but not the presence of a strict cash flow match. Where any excess of contractual asset cash flows over liability cash outflows is reinvested, the discount methodology should reflect that this reinvestment may only be possible at spread levels below the spread of the assets currently held. The “own assets with guardrails” OAG approach version 1.0 and 2.0 provide suggestions of how this can be incorporated in a non-parallel “shift” of the risk-free curve. Eligibility criteria for the middle bucket should ensure that asset can be held to maturity, e.g. by a liquidity stress test of liabilities to prove that assets are not exposed to forced sales.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Global Federation of Insurance Associations	Global	No	No	The eligibility criteria for the Middle Bucket are too narrowly defined to the extent that barely any insurance liabilities fall into this bucket. Suggestions for making the Middle Bucket more inclusive include: (1) Removal of Criterion (b) (taken from the 2018 Field Testing Technical Specifications), as optimal ALM practices dictate the management of assets on an aggregate level rather than an individual product level. (2) Rather than requiring cash-flow matching as per Criterion (c), a better option would be the use of an easier to calculate metric of key rate duration matching. The approach taken for the Middle Bucket needs to be consistent with economic reality and appropriately reflect assets held, as basis risk is introduced as soon as a firm moves away from own assets. It is essential that the approach adopted also recognises and incentivises prudent asset liability management. In doing so, IAIS should ensure that it does not create incentives that would deter insurers from investing in assets that are appropriate to hold within a portfolio to match the liabilities of business such as equity and infrastructure assets.

				(3) GFIA would also note that the requirements on surrender options and quantifying lapse risk are not practical to evidence; there is also insufficient justification for these criteria.
Dai-ichi Life Holdings, Inc.	Japan	No	No	Classifing all short-term insurance liabilities, which are little affected by discount rates, as general bucket should be acceptable as simplification. If mid-long term insurance liabilities don't satisfy the requirement of Top-bucket, it means there is some sort of cash-flow mismatch. We agree with IAIS that the degree of mismatch should be reflected in discount rate, but stable method which would not cause cliff effect would be required to be implemented. Therefore, every mid-long term liability should be recognized as eligible for middle bucket. Within middle bucket, application ratio should be continuously adjusted in accordance with the degree of duration mismatch of insurance liabilities, as seen in the method of OAG. Specifically, the ratio of asset duration to liability duration should be used as application ratio. By doing this, large ALM mismatch would decrease application ratio.
General Insurance Association of Japan	Japan	No	No	From the Technical Specifications, it is difficult to determine what is meant by "the assets and corresponding liabilities that are managed separately" and meet the eligibility criteria defined for the Middle Bucket. For example, it could mean assets managed separately in the special accounts and the reserve accounts. It could also include assets managed separately for ALM purposes under the internal rules to match the liabilities. The eligibility criteria defined for the Middle Bucket should be reviewed to clarify this point.
The Life Insurance Association of Japan	Japan	No	No	• Those except the Top Bucket are categorised as buckets with some ALM mismatch. Therefore, the robustness of the ALM should be captured by reflecting the degree of ALM mismatch in the discount rate. Aside from this, short-term insurance liabilities with less impacts on the discount rate may be classified into the General Buckets because there is no need to capture the robustness of the ALM. • The LIAJ believes all medium- and long-term insurance liabilities should be classified into the Middle Buckets. In addition, the OAG approach of adjusting the application ratio of the company´s spreads according to the degree of duration mismatch should be reflected in the Middle Buckets. Specifically, the LIAJ supposed the asset-liability duration ratio should be

				multiplied by the company´s spread. As a result, if the ALM mismatch is significant , the spread application ratio would be significantly reduced. • With regard to the judgement of the Lapse risk in the criteria assessment of the Middle Bucket, the current estimate of the liability is used as the denominator. However, the LIAJ thinks improvement is needed so as not to overestimate the lapse risks, because, as for level premium payment products, the present value of future insurance premiums are included in the calculation of the current estimate of the liability. As a result, the current estimate of the liability will be smaller amount than ideal amount for the criteria assessment of the Middle Bucket.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
American Council of Life Insurers	Office of General Counsel	No	No	The criteria used to define eligibility for the middle bucket are too restrictive. As we noted above, the middle bucket criterion emphasizes cash-flow matching (e.g., the quantitative matching eligibility test) that is inconsistent with how companies conduct their ALM in practice and inconsistent with ICP 16.5.3 which states that "…ALM does not imply that assets should be matched as closely as possible to liabilities, but that mismatches are effectively managed." Other metrics, which are more in line with the insurer's ALM practices could be employed to evaluate ALM discipline, such as key rate duration matching. Further clarification is needed on the lapse risk criteria. For the middle bucket, the criterion states that the ICS lapse risk charge needs to be less than 5% of the current estimate, resulting in a circular issue that the current estimate and risk charge need to be calculated first to determine bucketing.
Legal & General	UK	No	No	We did not make significant use of the Middle Bucket during 2018 field testing, finding that the amount of relaxation compared to Top Bucket was not sufficient to capture material volumes of liability. There is circularity in clause (e) of the Middle Bucket eligibility criteria, as it requires lapse risk capital to be calculated which in turn requires an assumption on Bucketing. We would

				suggest that the lapse risk assessment to be performed on undiscounted values, or on values discounted at risk-free rates.
Association of British Insurers	United Kingdom	No	No	The eligibility criteria for the Middle Bucket are too narrowly defined to the extent that barely any insurance liabilities fall into this bucket. Proposals for making the Middle Bucket more inclusive include: (1) Removal of Criterion (b) (taken from the 2018 Field Testing Technical Specifications), as optimal ALM practices dictate the management of assets on an aggregate level rather than an individual product level. (2) Rather than requiring cash-flow matching as per Criterion (c), a better option would be to evidence the use of sound ALM policies with appropriate governance or asset adequacy testing. The approach taken for the Middle Bucket needs to be consistent with economic reality and appropriately reflect assets held, as basis risk is introduced as soon as a firm moves away from own assets. It is essential that the approach adopted also recognises and incentivises prudent asset liability management. In doing so, IAIS should ensure that it does not create incentives that would deter insurers from investing in assets that are appropriate to hold within a portfolio to match the liabilities of business such as equity and infrastructure assets. (3) The ABI would also note that the requirements on surrender options and quantifying lapse risk are not practical to evidence; there is also insufficient justification for these criteria.
AIG	United States	No	No	The qualifying criteria for the top and middle buckets should be based on relevant ALM criteria rather than on prescriptive cash flow matching requirements. Similar to the top bucket eligibility criteria, the middle bucket´s cash flow matching criteria are too restrictive since it does not consider cumulative cash flows and, as a result, would not allow the carry forward of excess asset cash flows from previous maturities to offset potential asset cash flow shortfalls during later maturities. We propose that the cash flow matching assessment for both the top bucket and middle bucket should be based on a cumulative net asset and

				liability cash flows basis which would result in the recognition of excess asset cash flows from previous maturities.
National Association of Mutual Insurance Companies	United States	No	No	See comments to question 11.
RAA	United States and many other jurisdicitons	No	No	The eligibility criteria for the Middle Bucket are too narrowly defined as few if any insurance liabilities fall into this bucket. The approach taken for the Middle Bucket needs to be consistent with economic reality and appropriately reflect assets held, as basis risk is introduced as soon as a firm moves away from own assets. It is essential that the approach adopted also recognizes and incentivizes prudent asset liability management.
Prudential Financial, Inc.	United States of America	No	No	We believe that the bucketing of insurance liabilities is unnecessary and inappropriate. Liability discounting should reflect a full pass-through of the weighted average credit spread adjustment based on the insurer's own portfolio or an appropriately designed representative portfolio (i.e., a representative portfolio that is sufficiently granular and reflective of the way insurers in the market invest). In addition, as noted in our response to question 22, the bucket criteria provided by the IAIS must be clarified.
MetLife, Inc	USA	No	No	The IAIS proposed the middle bucket as a compromise between top and general buckets. However, qualification criteria for the middle bucket continue to be too strict for use by the majority of IAIGs and most liabilities are unlikely to qualify under the 2018 field testing specifications. In addition, the application ratio is 100% for the top bucket and 90% for the Middle bucket. The use of an application ratio less than 100% reflects the false premise that more cash flow matching is always better than less and contrary to the way most insurers manage their assets and liabilities. We would also point out that the Middle bucket requires a high degree of cash flow matching under a stress event that is unlikely to occur (1/200). Therefore, we would suggest that the current design of the multi-bucket approach be revised and propose the following: --The requirement that there be no future premiums or only fixed premiums is not justified. The whole premise of the ICS policy liability is that it is based on best estimate cash flows. We do not believe that future premiums should be treated differently than future benefits.

				Companies estimate future premiums in the same way as they estimate any other cash flows. --The lapse sensitivity test is inappropriate. While we can accept a requirement for a degree of cash flow matching under best estimate assumptions, we also believe that the discount rate for best estimate cash flows should not depend on what might happen under a one-in-200 tail event. --The cash flow matching criteria are too strict and alternatives should be tested and explored. Cumulative cash flows are not considered and therefore the approach does not allow carry forward of excess asset cash flows in the early years to offset deficits in later years. Allowable cash carry-forward should be increased from 10% to 25%. The restrictive lapse risk charge materiality threshold should be increased from 5% of portfolio liabilities to 20%. --It is essential that the discounting approach adopted recognizes and incentivizes prudent ALM. In doing so, the IAIS should ensure that it does not create incentives that would deter insurers from investing in assets, such as equity and infrastructure assets that are appropriate to hold within a portfolio to match the liabilities and thereby inadvertently preclude the offering of many long term products, such as retirement products, that are essential in many markets where the private sector is the major provider of this safety net.
Northwestern Mutual	USA	No	No	Because under the Three-Bucket approach the classification of liabilities by bucket and the discount rates that apply to each bucket are interrelated, we comment on the entire methodology rather than individual aspects of it. Therefore, the following comments pertain to questions 23, 24, 27, 30, and 34. These comments come from our perspective as a US mutual life insurance company whose primary liabilities are for participating whole life insurance. While we make general recommendations, the concerns we raise arise specifically from the way the Three Bucket approach treats US participating whole life insurance

				When valuing assets and liabilities, the yield curves used to discount future cash flows need to be consistent with the risk characteristics of those cash flows. See, e.g., ICP 14.2.2. While the Three-Bucket approach recognizes that the discount rates used to value liabilities should vary depending on the risk profile of the liabilities, it fails to appropriately classify liabilities by risk profile and set discount rates accordingly. The approach also fails to maintain consistency between the valuation of assets and liabilities. Because of these issues, the approach will lead to spurious volatility in financial results and improper valuations of contractual guarantees. Specifically, the Top and Middle Bucket criteria place too much emphasis on cash flow matching. This limited view of risk ignores that asset and liability risks can be well matched even if cash flows do not appear to be, and vice versa. To demonstrate this, consider the following examples. • A participating contract that transfers risk to the policyowner can appear to have a cash flow mismatch based on a comparison of expected asset and liability cash flows. However, as experience changes, the non-guaranteed elements of the contract will be adjusted such that net cash flows will be relatively stable under a wide range of possible scenarios. • A non-participating contract which does not transfer risk to the policyowner can appear to have well matched cash flows based on a comparison of expected asset and liability cash flows. However, as experience changes, net cash flows will fluctuate much more than what they would for the participating contract in the prior example. Other concerns with the Top and Middle Bucket criteria include: • Not allowing liabilities involving future premiums or surrender options with the potential for the surrender value to be greater than the value of the underlying assets in the Top Bucket is overly restrictive. These characteristics alone do not necessarily indicate riskier liabilities. • Having a criterion in the Middle Bucket based on the lapse risk from the ICS calculation is concerning, given the extreme nature of the mass lapse stress test (see our response to question 84).

				To appropriately classify liabilities based on risk and value them under a MAV framework, the criteria in the Three-Bucket approach should be replaced by criteria that provide a more holistic view of risk and consider the amount of risk transferred to policyowners vs. retained by the company. One simple way of accomplishing this would be to base the classification on how well the effective duration of assets and liabilities are aligned. Because effective durations consider how cash flows vary as interest rates change, they would provide a better measure of the match between assets and liabilities and would reflect the transfer of interest rate risk from a company to a policyowner. While this change would improve the classification of liabilities under the Three-Bucket approach, a more ideal solution would consider how sensitive cash flows are to shocks to all key risk factors, not just interest rates. This more comprehensive approach would not necessarily need to add overly burdensome complexity to the valuation, as the sensitivity measure could be tied directly to the scenarios used to calculate the ICS capital requirement. The mechanics for determining spread adjustments within the three buckets also include elements that, unless revised, will cause an insurer's liability discount rate to deviate from reflecting the true risk characteristics of the firm's liabilities and assets. These elements include: 1. Absence of credit for equity investments in establishing the spread adjustment; 2. Lack of clear linkage between application ratios and risk characteristics of the three buckets; 3. Lack of transparency on the origin of the provided spreads, and insufficient granularity in the spreads applicable to the middle and general buckets, which should vary by more characteristics such as asset type (e.g., public, private, mortgage loans) and tenor; and 4. Excess conservatism in the middle and general bucket spreads. Additionally, the discrete breakpoints created by the Three-Bucket approach mean that liabilities on the borderline between buckets will see large swings in valuation results with

				small changes in conditions. A continuous approach would avoid these “cliff effects”. As indicated in the prior sections, incremental changes could be made to help improve the Three-Bucket approach. However, we believe a better solution exists that would address the key limitations of the Three-Bucket approach while still adhering to the core principles underlying its development. Under this alternative solution, the discount rate curve used to value liabilities would be set as follows: • First, a gross discount rate curve would be set that reflects the total expected return on a portfolio of assets like those the company actually invests in. This curve would reflect a blend of all the kinds of assets in the portfolio. Due to the subjectivity of expected returns on assets like equities, rules would need to be developed to standardize the expected returns on such investments for purposes of developing the gross discount rate curve. • Next, a baseline valuation of the liabilities and a baseline ICS capital requirement calculation would be performed. • Then, the baseline ICS capital requirement would be converted into a risk charge. This risk charge would be calculated by applying a cost of capital factor to the ratio of the baseline ICS capital requirement to the baseline liability value. For example, if the ratio of the ICS capital requirement to the liabilities is 8% and the cost of capital factor is 5%, then the resulting risk charge would be 0.40%. Rules would be developed to standardize how the cost of capital factor is set. • Finally, the risk charge calculated in the prior step would be deducted from the gross discount rate curve to come up with the final adjusted discount rate curve. We proposed this alternative in our response to the 2016 ICS consultation based on our field testing learnings that year, and we renew our recommendation here. Again, our primary concern in making this recommendation is that the ICS valuation methodology appropriately recognize the features of US participating individual whole life insurance by which risk is shared between the company and the policyowner. The alternative we propose does this by better identifying the true risk profile of the liabilities and adjusting the discount rate

				accordingly. It considers all key risks, not just interest rate risk, and reflects how much risk is transferred to policyowners vs. how much is retained by the company. In addition, by being company-specific both in terms of the initial gross spread adjustments to the risk-free curve and the risk charge deducted from those gross spreads, it improves consistency in valuation of assets and liabilities. And, by avoiding discrete break points, it reduces unwarranted volatility in financial results.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	See our response to Q 30.

Q25 Section 5.1 Is it appropriate for the Top Bucket to consider the application of an adjustment based on own spreads until the run-off of the insurance liabilities, whereas the cash flow matching requirements are only assessed up to the LOT? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	Yes	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	Indeed, the particular risks in the cash flow mismatch to be expected for very long-term liability cash flows necessitate a rather full reflection of the whole maturity band. In particular, segment 2 of the yield curve still benefits from the adjusted spread, even though no matching requirements are set in this section.
Global Federation of Insurance Associations	Global	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	No	No. An adjustment based on own spreads should not be applied beyond LOT. This is because the yield of the assets beyond the LOT should require reinvestment.
The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	No	Given that the addition to spread only applies to the LOT it would not appear logical for cashflow matching to be assessed beyond this period unless the spread addition were also extended beyond this.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this

				question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	Yes	Using own spreads until the run-off of the insurance liabilities better reflects expected re-investment spreads than extrapolation based on an inappropriate and arbitrary 10 bps placeholder.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Yes. It is not reasonable to ask companies to match assets to liabilities beyond the term at which eligible assets are available unless either positive cash flows are taken into account and allowed to be carried forward to support liabilities beyond the LOT or additional assets such as equities are eligible to match natural liabilities such as pension liabilities.

Q26 Section 5.1 Is the application ratio considered for the Top Bucket appropriate for ICS Version 2.0? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	Yes	Insurance Europe believes that an application ratio of 100% is absolutely appropriate. Eligibility for application of the Top Bucket adjustment requires liabilities to meet a strict set of criteria (see response to Q23). Furthermore, each portfolio-specific adjustment is based on own assets and own spreads which helps ensure that the valuation appropriately reflects the risk profile of an IAIG, and encourages effective asset-liability management. As noted by the IAIS, these factors should create a high degree of confidence that the insurer will be able to earn the returns implicit in the adjustment. Any residual ALM risk will be immaterial and does not justify a reduced application ratio.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The application ratio is too high for all three buckets. See also Q25 : the mismatch can be material, but still 100% or at least 80% of the own asset spread can be applied.
Global Federation of Insurance Associations	Global	No	Yes	It is appropriate to apply an application ratio of 100%. The Top Bucket adjustment is based on own assets and own spreads – using entity specific elements in the valuation of insurance liabilities helps ensure that the valuation appropriately reflects the risk profile of an IAIG, and encourages effective asset-liability management. As IAIS states, this creates “some degree of assurance that the IAIG will actually be able to hold its own assets to maturity, therefore earning the spreads which are being used to discount insurance liabilities” (i.e. mitigating basis risk).
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	

Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
American Council of Life Insurers	Office of General Counsel	No	No	The use of application ratios represents an arbitrary haircut to asset spreads. As noted in previous discussions, the rationale of using application ratios is in general debatable, and further it seems unlikely that the application ratios of 100%/90%/80% tested in the 2018 field test have been calibrated in any meaningful form.
Legal & General	UK	No	Yes	We are comfortable with this and would consider any reduction to application ratio to be uneconomic.
Association of British Insurers	United Kingdom	No	Yes	It is appropriate to apply an application ratio of 100%. The Top Bucket adjustment is based on own assets and own spreads – using entity specific elements in the valuation of insurance liabilities helps ensure that the valuation appropriately reflects the risk profile of an IAIG, and encourages effective asset-liability management. As IAIS states, this creates "some degree of assurance that the IAIG will actually be able to hold its own assets to maturity, therefore earning the spreads which are being used to discount insurance liabilities" (i.e. mitigating basis risk).
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	Yes	
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a

				response by PCI should not be taken one way or the other with respect to the subject of the question.

Q27 Section 5.1 Are there any further comments regarding the Top Bucket methodology? Please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	ICS Version 2.0 does not allow for the use of internal ratings where there is no external credit rating. This will act as a disincentive for insurers to invest in the real economy, including in infrastructure and sustainable growth. The use of internal ratings is permissible under other international frameworks such as the Basel framework and IFRS. It is essential that insurers should be able to use internal ratings in both capital calculations and (where appropriate) the valuation of liabilities, to enable insurers to play their role as long-term investors in the economy and in particular to support infrastructure projects. For many critical asset classes that support economic development (eg. private debt and collateralised mortgage loans) and many emerging market jurisdictions, reliable Credit Rating Agency (CRA) ratings are not readily available. In this case, internal ratings subject to robust governance should be permitted, in line with the framework described under ICP 15.

				This is also important to ensure that insurers can play their role in helping the G20 achieve its growth objective. Insurance Europe believes that IAIS policy proposals should be consistent with G20 aims.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	A central idea behind the Top Bucket is that a perfect match of asset and liability cash flows gives rise to a full hedge of spread risks. This is not the case: the matching requirements only apply up to the LOT. The LOT is usually much shorter than typical long-term liability cash flow maturities.
Global Federation of Insurance Associations	Global	No	Yes	ICS Version 2.0 as included within the field testing exercise does not allow for the use of internal ratings where there is no external credit rating. This will act as a disincentive for insurers to invest in the real economy, including in infrastructure. The use of internal ratings is permissible under other international frameworks, such as the Basel framework and IFRS. It is essential that insurers should be able to use internal ratings in both capital calculations and (where appropriate) the valuation of liabilities, to enable insurers to play their role as long-term investors in the economy and in particular to support infrastructure projects and sustainable growth. GFIA notes that for many critical asset classes that support economic development (e.g. private debt and collateralised mortgage loans) and many emerging market jurisdictions, reliable Credit Rating Agency (CRA) ratings are not readily available. In this case, internal ratings subject to robust governance should be permitted, in line with the framework described under ICP 15. This is also important to ensure that insurers can play their role in helping the G20 achieve its growth objective. In GFIA's view, IAIS policy proposals should be consistent with G20 aims.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	OAG, adoption of which we support, has the mechanism which continuously adjusts the spread in accordance with the degree of duration mismatch. Therefore, the treatment which allows applying OAG only to Top bucket is less meaningful (please note that assets and liabilities classified as top bucket has no duration mismatch), and OAG should be applied to Middle bucket, too.

General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	Yes	• The LIAJ supports the adoption of the OAG. The OAG has a mechanism to continuously adjust the spread according to the degree of duration mismatch. Therefore, it is appropriate not to apply the OAG only to the Top Buckets without duration mismatch, but also to apply the OAG to the Middle Buckets.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Legal & General	UK	No	Yes	We do not understand the rationale for internal ratings not to be used in determining the addition to discount rate. It is a critical issue for us that internal ratings are recognised by ICS and we see no reason why this should not be achievable provided an appropriate framework is put around the internal rating process. The overriding principles around our internal ratings framework (which we see as a good example of what would be required to put in place in order for ratings to be used) is that it provides output that has the following features: • Ratings should be determined by appropriately qualified individuals independent of the processes and businesses that use them • Ratings should be, as far as possible, equivalent to those that would have been determined by an external rating agency. In particular there should be no systematic bias in rating • Ratings should be based on quantitative factors and evidence, and should be appropriately documented • Ratings should be reviewed, challenged and formally approved (including external review and/or audit where appropriate) • Ratings framework should be subject to regulatory review Ratings that are already used for Solvency II should satisfy all of the above criteria and, in

				our case, our framework has been subject to regulatory scrutiny. This should therefore be automatically suitable for use within ICS. The list below summarises the process used to assign internal ratings to different exposures as well as the oversight and governance around it: Category: Large exposures Process: Internal ratings are assigned by an independent separate team within our investment management division through a Portfolio Review process. Governance: The definition of large exposure is approved by the Group Credit Risk Committee (GCRC). The actual internal ratings and process to derive the ratings can be challenged by the GCRC and escalated to the Group Risk Committee (GRC), which has several independent Non-Executive Directors sitting on it. The process and outcomes are also subject to independent second-line review. Category: Complex Securitisations Process: Internal ratings are derived for capital calculations by notching down from the public ratings, depending on seniority of the tranche, and potentially the type of asset and region. Governance: The notching rules for this category and if the rules can be applied is monitored and approved by the GCRC. Category: Complex Direct Investments Process: Internal ratings are assigned by the asset management firm that originated the transaction (usually through a robust rating committee process that is subject to strict governance and challenge). Governance: The methodologies used by the asset managers need to be approved and overseen by the GCRC to ensure consistency across managers and subsidiaries. Category: Unrated traded securities Process: The internal ratings are assigned by asset management firm through a Portfolio Review or through a Committee depending on complexity.

				Governance: Oversight by GCRC However, subject to the use of internal ratings and the points raised to other questions relating to Top Bucket, we are broadly supportive of the methodology.
Association of British Insurers	United Kingdom	No	Yes	ICS Version 2.0 as included within the field testing exercise does not allow for the use of internal ratings where there is no external credit rating. This will act as a disincentive for insurers to invest in the real economy, including in infrastructure. The use of internal ratings is permissible under other international frameworks such as the Basel framework and IFRS. It is essential that insurers should be able to use internal ratings in both capital calculations and (where appropriate) the valuation of liabilities, to enable insurers to play their role as long-term investors in the economy and in particular to support infrastructure projects and sustainable growth. The ABI notes that for many critical asset classes that support economic development (e.g. private debt and collateralised mortgage loans) and many emerging market jurisdictions, reliable ECAI ratings are not readily available. In this case, internal ratings subject to robust governance should be permitted, in line with the framework described under ICP 15. This is also important to ensure that insurers can play their role in helping the G20 achieve its growth objective. In our view, IAIS policy proposals should be consistent with G20 aims.
National Association of Mutual Insurance Companies	United States	No	Yes	See NAMIC response to question 7 and 11. NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
RAA	United States and many other jurisdicitons	No	Yes	ICS Version 2.0 does not allow for the use of internal ratings where there is no external credit rating. This will act as a disincentive for insurers to invest in the real economy, including in infrastructure. The use of internal ratings is permissible under other international frameworks, such as the Basel framework and IFRS. It is essential that insurers should be able to use internal ratings in both capital calculations and (where appropriate) the valuation of liabilities, to enable insurers to play their role as long-term investors in the economy.

Prudential Financial, Inc.	United States of America	No	Yes	While we agree with many components of the Top Bucket methodology such as using insurer's own portfolios, 100% application ratio and recognition of realistic spread adjustments beyond the investable horizon, there are still several critical elements that need to be improved. Eligible Assets - The expected excess return of equities, real estate, and other alternative investments should be recognized as a spread add on – these are an integral and consistent elements of a life insurer's investment strategy. Spread Term Structure - Term structure of spreads, where available, should be used instead of flat spreads (e.g. USD). Risk Correction - Though the level of the IAIS Risk Correction appears reasonable for USD, refinements are needed to: 1) Differentiate the risk correction for different currencies instead of using a global risk correction for all currencies; 2) Develop risk correction term structure to be aligned with spread term structure; and 3) Reflect the risk of expected defaults only with a clearly defined and documented method
MetLife, Inc	USA	No	Yes	Please see our response to Q23 above.
Northwestern Mutual	USA	No	Yes	Because under the Three-Bucket approach the classification of liabilities by bucket and the discount rates that apply to each bucket are interrelated, we comment on the entire methodology rather than individual aspects of it. Therefore, the following comments pertain to questions 23, 24, 27, 30, and 34. These comments come from our perspective as a US mutual life insurance company whose primary liabilities are for participating whole life insurance. While we make general recommendations, the concerns we raise arise specifically from the way the Three Bucket approach treats US participating whole life insurance When valuing assets and liabilities, the yield curves used to discount future cash flows need

				to be consistent with the risk characteristics of those cash flows. See, e.g., ICP 14.2.2. While the Three-Bucket approach recognizes that the discount rates used to value liabilities should vary depending on the risk profile of the liabilities, it fails to appropriately classify liabilities by risk profile and set discount rates accordingly. The approach also fails to maintain consistency between the valuation of assets and liabilities. Because of these issues, the approach will lead to spurious volatility in financial results and improper valuations of contractual guarantees. Specifically, the Top and Middle Bucket criteria place too much emphasis on cash flow matching. This limited view of risk ignores that asset and liability risks can be well matched even if cash flows do not appear to be, and vice versa. To demonstrate this, consider the following examples. • A participating contract that transfers risk to the policyowner can appear to have a cash flow mismatch based on a comparison of expected asset and liability cash flows. However, as experience changes, the non-guaranteed elements of the contract will be adjusted such that net cash flows will be relatively stable under a wide range of possible scenarios. • A non-participating contract which does not transfer risk to the policyowner can appear to have well matched cash flows based on a comparison of expected asset and liability cash flows. However, as experience changes, net cash flows will fluctuate much more than what they would for the participating contract in the prior example. Other concerns with the Top and Middle Bucket criteria include: • Not allowing liabilities involving future premiums or surrender options with the potential for the surrender value to be greater than the value of the underlying assets in the Top Bucket is overly restrictive. These characteristics alone do not necessarily indicate riskier liabilities. • Having a criterion in the Middle Bucket based on the lapse risk from the ICS calculation is concerning, given the extreme nature of the mass lapse stress test (see our response to question 84).

				To appropriately classify liabilities based on risk and value them under a MAV framework, the criteria in the Three-Bucket approach should be replaced by criteria that provide a more holistic view of risk and consider the amount of risk transferred to policyowners vs. retained by the company. One simple way of accomplishing this would be to base the classification on how well the effective duration of assets and liabilities are aligned. Because effective durations consider how cash flows vary as interest rates change, they would provide a better measure of the match between assets and liabilities and would reflect the transfer of interest rate risk from a company to a policyowner. While this change would improve the classification of liabilities under the Three-Bucket approach, a more ideal solution would consider how sensitive cash flows are to shocks to all key risk factors, not just interest rates. This more comprehensive approach would not necessarily need to add overly burdensome complexity to the valuation, as the sensitivity measure could be tied directly to the scenarios used to calculate the ICS capital requirement. The mechanics for determining spread adjustments within the three buckets also include elements that, unless revised, will cause an insurer's liability discount rate to deviate from reflecting the true risk characteristics of the firm's liabilities and assets. These elements include: 1. Absence of credit for equity investments in establishing the spread adjustment; 2. Lack of clear linkage between application ratios and risk characteristics of the three buckets; 3. Lack of transparency on the origin of the provided spreads, and insufficient granularity in the spreads applicable to the middle and general buckets, which should vary by more characteristics such as asset type (e.g., public, private, mortgage loans) and tenor; and 4. Excess conservatism in the middle and general bucket spreads. Additionally, the discrete breakpoints created by the Three-Bucket approach mean that liabilities on the borderline between buckets will see large swings in valuation results with small changes in conditions. A continuous approach would avoid these "cliff effects".

				As indicated in the prior sections, incremental changes could be made to help improve the Three-Bucket approach. However, we believe a better solution exists that would address the key limitations of the Three-Bucket approach while still adhering to the core principles underlying its development. Under this alternative solution, the discount rate curve used to value liabilities would be set as follows: • First, a gross discount rate curve would be set that reflects the total expected return on a portfolio of assets like those the company actually invests in. This curve would reflect a blend of all the kinds of assets in the portfolio. Due to the subjectivity of expected returns on assets like equities, rules would need to be developed to standardize the expected returns on such investments for purposes of developing the gross discount rate curve. • Next, a baseline valuation of the liabilities and a baseline ICS capital requirement calculation would be performed. • Then, the baseline ICS capital requirement would be converted into a risk charge. This risk charge would be calculated by applying a cost of capital factor to the ratio of the baseline ICS capital requirement to the baseline liability value. For example, if the ratio of the ICS capital requirement to the liabilities is 8% and the cost of capital factor is 5%, then the resulting risk charge would be 0.40%. Rules would be developed to standardize how the cost of capital factor is set. • Finally, the risk charge calculated in the prior step would be deducted from the gross discount rate curve to come up with the final adjusted discount rate curve. We proposed this alternative in our response to the 2016 ICS consultation based on our field testing learnings that year, and we renew our recommendation here. Again, our primary concern in making this recommendation is that the ICS valuation methodology appropriately recognize the features of US participating individual whole life insurance by which risk is shared between the company and the policyowner. The alternative we propose does this by better identifying the true risk profile of the liabilities and adjusting the discount rate accordingly. It considers all key risks, not just interest rate risk, and reflects how much risk is transferred to policyowners vs. how much is retained by the company. In addition, by being

				company-specific both in terms of the initial gross spread adjustments to the risk-free curve and the risk charge deducted from those gross spreads, it improves consistency in valuation of assets and liabilities. And, by avoiding discrete break points, it reduces unwarranted volatility in financial results.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q28 Section 5.1 Is the application ratio considered for the Middle Bucket appropriate for ICS Version 2.0? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	The rationale for inclusion of an application ratio in ICS is not clear. Specifically, an application ratio is intended to address the risk of selling assets in a stressed market environment where expected returns on those assets may not be realized. This is a liquidity risk which is outside the scope for ICS and should be addressed elsewhere in ComFrame. In addition, the use of an application ratio causes the asset and side of the balance sheet to be treated inconsistently when measuring risk in the stressed market environments, and as a result leads to a lack of comparability of results across companies, including increasing the risk of false positives or false negatives.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	The application ratio applied to the Middle Bucket should reflect the residual ALM risks which are not addressed through the eligibility criteria.
German Insurance Association	Germany	No	No	The eligibility criteria for the middle bucket should be such that they ensure that no assets (with a current spread) have to be sold. If this is the case, the application ratio should be 100%.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The application ratio is too high. The deduction of just 10% of the top bucket is too low. Where asset/liability cash flow mismatch applies, spread risk becomes material. This may result in significantly higher deviations than just 10% of the Top Bucket spread.
Global Federation of Insurance Associations	Global	No	Yes	A 90% application ratio is only appropriate for the Middle Bucket if it is clear that it actually reflects higher basis risk in the spread calculation resulting from the less strict nature of the eligibility criteria when compared with the Top Bucket.
Dai-ichi Life Holdings, Inc.	Japan	No	No	The application ratio of spread should decrease in accordance with the degree of ALM matching like OAG method. If so, it isn't necessary to discuss the application ratio, which causes artificial mismatch between assets and liabilities.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• The spread reflection should be reduced according to the degree of ALM mismatch, as in the OAG. By doing adjustment like the OAG, there is no need to discuss the application ratio that will give rise to an artificial cliff effects .
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	

American Council of Life Insurers	Office of General Counsel	No	No	As we noted above in Question 26, we believe the use of application ratios represents an arbitrary haircut to asset spreads. As noted in previous discussions, the rationale of using application ratios is in general debatable, and further it seems unlikely that the application ratios of 100%/90%/80% tested in the 2018 field test have been calibrated in any meaningful form.
Legal & General	UK	No	Yes	We are comfortable with this.
Association of British Insurers	United Kingdom	No	Yes	A 90% application ratio is only appropriate for the Middle Bucket if it is clear that it actually reflects higher basis risk in the spread calculation.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	Liability discount curves should reflect a full pass through of the weighted average credit spread adjustment, net of expected defaults – i.e., the application ratio should be 100%. Any haircut resulting in less than full recognition of the portfolio spread gives rise to distorted results and non-economic volatility.
MetLife, Inc	USA	No	No	Please see our response to Q24 above to the effect that the use of different application ratios reflects the false premise that more cash flow matching is always better than less and contrary to the way most insurers manage their assets and liabilities. We would also point out that the Middle bucket requires a high degree of cash flow matching under a stress event that is unlikely to occur (1/200).
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q29 Section 5.1 Is the list of eligible Assets specified for the Middle Bucket (which also applies to the Top and General Buckets) appropriate for ICS Version 2.0, taking into consideration the objective of the MAV spread adjustment? If “no”, please provide sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	Eligibility criteria do not include equity (and other similar) assets that are widely used in actual practice to back long-term business. As a result, market-adjusted valuation (MAV), and consequently ICS, produces a misleading and distorted view of risks associated with long-term business. This could potentially result in the IAIGs being unable to support the sale of long-term insurance products once ICS is in effect. However, non-IAIGs would not be restricted. Clearly there would be broad social and macroeconomic implications if this were to be the case. The ability to fund long-term insurance and pension products is a concern for the Financial Stability Board (FSB). We strongly recommend that the IAIS consider conducting an impact study to assess the impact of ICS on the ability of insurers to continue to offer long-term insurance products to support retirement needs and to support investment in long-term assets such as infrastructure.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	We suggest allowing for the dividend returns on equities in determing the spread for middle bucket. The reasons are as follows: 1)Normally insurers conduct proper asset allocations based on its risk appetite, liablity features and liquity management requirements. Equity investment is one of the common and important part of the asset allocation. 2)For emering markets, as the choices for long-term and goodquality investments are often limited, insurers usually choose blue chip stocks with stable dividends to match the long-term insurance liabilities. Such returns are important in supporting liabilities, thus we suggest to allow for them in discounting spreads. 3)Additional guardrails can be added to limit the allowance of such equity returns.

Insurance Authority (IA)	China, Hong Kong	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	The current list of eligible assets for the Middle Bucket approach is very narrow, and should be expanded to include at least convertibles, equity, property and infrastructure investments. A suitable approach needs to be found, not to unduly disincentive insurers investing in such assets. Simply excluding them from the spread approaches has precisely that effect. When assessing the appropriateness of investments, the IAIS should assess whether yields are earned and should not just regard assets based on their form. For example, convertibles can be significantly out of the money (also after the stress scenarios) or the conversion date has passed and the convertible is in essence a bond. In both instances, the convertible should be included in the reference portfolio. See also our responses to Q24.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The class of variable interest rate instruments should be excluded, in particular if the corresponding liabilities have a (minimum) guaranteed interest rate.
Global Federation of Insurance Associations	Global	No	No	The current list of eligible assets specified for the Middle Bucket is very narrow and does not encourage appropriate ALM practices. It should be expanded to include equity investment and internally rated credit holdings, especially those held to support long-term liabilities. Also, see earlier comments under Q24.
Dai-ichi Life Holdings, Inc.	Japan	No	No	Equity should be included in the list of eligible assets. First, from the viewpoint of ALM, if there is no fixed income asset with the same duration as that of long-term insurance product, it is rational to match expected cash-in-flow from equity, which has no maturity, with long term cash-out-flow from insurance liabilities. Additionally, duration mismatch caused by equity investment has already reflected in interest

				rate risk calculation and price fluctuation risk in equity risk. Therefore, the current discount rate to restrict excessively the additional spread arising from appropriate investment is too punitive. For the reasons mentioned above, equity should be included in the list of eligible assets with appropriate guardrails, for example: Volume: up to the volume of long-term liabilities (e.g. 12 years) Spread: same as spread of BBB rating bond. Though current proposal exclude foreign denominated bond from the scope of spread calculation, we believe it is appropriate to reflect at least credit premium in the spread of discount rate of insurance liabilities of domestic-currency.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• Equities and real estate should also be included in the list of eligible assets. The duration mismatch resulting from equity holdings and real estate holdings is reflected in Interest Rate risk, and price fluctuations are reflected in Equity risk and Real Estate risk. To charge only the amount of risks and excluding the excess spread expected from equity holdings and real estate holdings from the calculation of the discount rate are the unnecessarily punitive treatment. Also, if equities and real estates are excluded from eligible assets, the role of life insurers in Japan in providing long-term stable growth capitals to the market may be undermined. • The LIAJ believes there is a certain rationale for holding equities and real estates which have eternal cash flows without maturity in correspondent to the cash flows resulting from ultra-long-term insurance liabilities that cannot be matched by bonds in the market. • Given the development of guardrails, the LIAJ believes that equities and real estates should be included in the list of eligible assets. Such guardrails should include the upper limit of the amount of eligible assets to be the volume of long-term liabilities (for example, over 12

				years) and the spread deemed to be BBB-rated corporate bonds. • Under the current specifications, only hedged foreign bonds are subject to the spread calculation. However, at least for credit premium, it is appropriate that non-hedged bonds are also subject to the spread calculation.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
American Council of Life Insurers	Office of General Counsel	No	No	ACLI is concerned with the lack of recognition for equity (and equivalent) assets that are widely used in practice to back long-term liabilities. This topic has been widely discussed in other forums and these discussions will not be repeated here, but in the context of the MAV calculation, excluding these assets results in this business being treated as 'duration mismatched'. Consequently, these blocks are valued under the general bucket representative portfolio approach, where clearly the assumptions used for the general bucket approach are not actually 'representative' of the types of assets backing long term business. In addition, the long term spread added to LTFR fails to appropriately reflect the spreads insurers make on its long-term investment portfolio. The current 10bps placeholder is overly conservative and is inconsistent with the overwhelming empirical evidence supporting higher long-term spreads.
Legal & General	UK	No	No	Not allowing cash to be included in the derivation of a spread adjustment for a Top Bucket portfolio does not appear logical. Clearly any fund will require a certain amount of cash to ensure liquidity and to not reflect this in the derivation of the discount rate appears to be inconsistent and to potentially allow discount rate to be overstated as in reality the cash element would dilute the return from the other assets. We found that paragraph 146 in the technical specifications about call options was potentially very restrictive. The PRA have issued guidance around a similar clause within the Solvency II Matching Adjustment framework that we have found useful in terms of providing a more proportionate approach to assessing any matching issues created by call options or other such asset features. In particular, the PRA has clarified that the possibility of an early

				redemption for reasons outside the control of the issuer in response to (say) tax changes or unavailability of relevant index (for index-linked bonds) should not lead to assets being viewed as ineligible for the Matching Adjustment. There is also an overriding consideration of the materiality of any change in substance or obligations. We think that similar clarification within the ICS would be helpful. The PRA has also set out a treatment for callable bonds which allows them to be included in a Matching Adjustment portfolio with amended cashflows to ensure firms do not rely on cashflows that may change. This method only allows recognition of coupons up to the first call date with the principal repayment modelled at the final legal maturity (with no coupons/interest in between). The bond's market value is not amended and thus the perceived yield (and hence MA benefit) is reduced. We believe that Matching Adjustment is overly restrictive in this area and we would recommend that at minimum the ICS should be no more restrictive than this. We believe that more clarity is required in terms of the dividing line for Top Bucket eligibility between pure property investments and structured arrangements that include some element of property exposure (the latter of which we would tend to classify as "mortgage backed securities").
Association of British Insurers	United Kingdom	No	No	The current list of eligible assets specified for the Middle Bucket is very narrow and does not encourage appropriate ALM practices. It should be expanded to include property and infrastructure, equity investment and internally rated credit holdings, especially those held to support long-term liabilities. Also, see earlier comments under Q24.
AIG	United States	No	No	Currently, eligible assets specified for the top, middle, and general buckets exclude equities, hedge funds, and private equity investments. Equity investments and alternative assets are widely recognized as an appropriate asset class with which to match long-term liabilities. Short-term market volatility has less relevance in the context of the valuation of long term liabilities, and recognition for this risk is already reflected in the determination of required capital. While we fully agree that equities are not an appropriate investment to back short term

				liabilities, this is not the case for long term liabilities, especially those where the policyholder participates in investment return upside. In many jurisdictions, participating products with a substantial proportion of supporting assets invested in equities are common. One of the potential unintended consequences of a valuation approach that does not recognize the higher expected long term return on equities could be to make these products uneconomical. Consistent with the Own Assets with Guardrails approach, we believe assigning a non-zero spread to equity investments and alternative assets subject to a duration-based equity cap (e.g. a non-zero spread is only applied to the discounting rate of long term liability cash flows and is capped at a BBB spread), provides appropriate recognition for these assets in the liability discount rate.
National Association of Mutual Insurance Companies	United States	No	No	See NAMIC response to question 7 and 11. NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	As noted in our response to Question 27, we believe the ICS should consider a broader range of long-term assets that are integral and consistent elements of a life insurer's investment strategy as eligible including equities, hedge funds, private equity, real estate (for investments), infrastructure (if equity) and convertible notes.
MetLife, Inc	USA	No	No	Please see our response to Q24 to the effect that it is essential that the discounting approach adopted recognizes and incentivizes prudent ALM. In doing so, the IAIS should ensure that it does not create incentives that would deter insurers from investing in assets, such as equity and infrastructure assets that are appropriate to hold within a portfolio to match the liabilities and thereby inadvertently preclude the offering of many long term products, such as retirement products, that are essential in many markets where the private sector is the major provider of this safety net.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a

				response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	Equities are currently ineligible for a spread above the risk free rate. The natural investment to support pension type products is equities and equity type investment vehicles such as property. The ICS rules should not penalize insurers for pursuing appropriate investment vehicles to match their liabilities. Equity type investments should be included in the list of assets eligible for a spread.

Q30 Section 5.1 Are there any other comments regarding the Middle Bucket methodology? Please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	The current eligibility criteria for the Middle Bucket are difficult to evidence, in particular the cash flow matching requirement Insurance Europe believes that cash flow matching is not necessary to be able to earn an illiquidity premium and therefore it should not be an explicit criterion. Instead, a qualitative check could be performed on the strength of firms' ALM practices/policies. The requirements to manage the Middle Bucket portfolio separately from other lines of

				business is challenging to evidence – the IAIS should provide more specific information on what this means in practice. The current requirements on surrender options and quantifying lapse risk are not justified, and there are also practical difficulties in evidencing these.
Allianz	Germany	No	Yes	While some effort has been made to reflect the more limited impact of short-term credit spread movements in the adjustments to the discount curve, these are not sufficient. The current proposals for liability valuation are not conducive to reflecting the relevant remaining economic risks when taking into account the asset-liability management approach by insurers to their long-term business. When investing to cover long-term stable liabilities insurers can choose long-term assets to satisfy liability cash flows from contractual asset cash flows and are not subject to forced asset sales, even in times of turbulent asset markets. The ability to hold assets to maturity is independent of the degree of cash flow match of the asset/liability portfolio. Where assets can be held to maturity insurers are not subject to asset price movements (the only risk is actual default in payment of interest and principal when due) and the corresponding liability valuation should therefore include the default-risk-corrected spread of the supporting assets (as a shift of the yield curve up to the duration of portfolio assets). While appropriate eligibility criteria should apply to identify illiquid liabilities (such as a liability liquidity stress test), current criteria for the ICS spread adjustment test only for the degree of cash flow match, which fails to recognize the ability to hold assets to maturity and unnecessarily limits application of asset-derived liability valuation adjustments (for both the top and middle bucket). Appropriate eligibility criteria should be derived to test the ability to hold assets to maturity as a function of the liability portfolio characteristics. Eligible portfolios should be valued based on the risk-corrected spreads of underlying assets to fully reflect and honour ALM strategies and remaining risks. Where an approach based on weighted reference portfolios is used to derive the spread adjustment (such as the middle bucket), the reference portfolios should at a minimum be determined along the dimensions of asset class, rating and duration, in order to honour liability-consistent investment strategies. This would align regulatory incentives with

				economic reality, remove unwarranted disincentives implied by current approaches and effectively eliminate regulatory driven pro-cyclical investment decisions.
German Insurance Association	Germany	No	Yes	We alternatively propose to consider a currency-specific spread adjustment aligned with the concept of the bottom-up approach in IFRS 17. This concept takes into account the illiquidity of insurance cashflows. An improvement within the framework of the current approach for the middle bucket could be to allow for a more adequate recognition of the spreads of own assets, while the underlying segmentation of assets and risk-correction per segment may be prescribed by the IAIS. In particular, the segmentation of assets should be along two dimensions: duration and rating.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	Since the application ratio of 90% is too high (see Q28), concerns similar to the Top Bucket apply here.
Global Federation of Insurance Associations	Global	No	Yes	GFIA considers that all medium and long-term insurance liabilities should be eligible for the Middle Bucket. Cashflow matching: GFIA recognises that liabilities outside the Top Bucket will have some kind of mis-match; however, GFIA does not take the view that strict cash flow matching is necessary to be able to earn a liquidity premium, and therefore this should not be an explicit criterion. Instead, GFIA suggests that a more qualitative check should be performed on strength of firms' ALM practices and policies. Managing individual portfolios: The requirements to manage the Middle Bucket portfolio separately from other lines of business results in sub-optimal ALM methodology, as it ignores synergies and natural hedges across various lines of business. GFIA would also note that the requirements on surrender options and quantifying lapse risk are not practical to evidence; there is also insufficient justification for these criteria.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	Classifing all short-term insurance liabilities, which are little affected by discount rates, as general bucket should be acceptable as simplification.

				If mid-long term insurance liabilities don't satisfy the requirement of Top-bucket, it means there is some sort of cash-flow mismatch. We agree with IAIS that the degree of mismatch should be reflected in discount rate, but stable method which would not cause cliff effect would be required to be implemented. Therefore, every mid-long term liability should be recognized as eligible for middle bucket. Within middle bucket, application ratio should be continuously adjusted in accordance with the degree of duration mismatch of insurance liabilities, as seen in the method of OAG. Specifically, the ratio of asset duration to liability duration should be used as application ratio. By doing this, large ALM mismatch would decrease application ratio.
General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	Yes	• Regarding the bucket approach, the LIAJ concerns that the cliff effect occurs between buckets. A significant difference in discount rates due to a slight difference in product features would undermine the level playing field. The cliff effect is less likely to occur through the OAG because the mismatch situation is continuously reflected in the OAG. Along with the Three-Bucket Approach, improvements in the OAG should be targeted. • Those except the Top Bucket are categorised as buckets with some ALM mismatch. Therefore, the robustness of the ALM should be captured by reflecting the degree of ALM mismatch in the discount rate. Aside from this, short-term insurance liabilities with less impacts on the discount rate may be classified into the General Buckets because there is no need to capture the robustness of the ALM. • The LIAJ believes all medium- and long-term insurance liabilities should be classified into the Middle Buckets. In addition, the OAG approach of adjusting the application ratio of the company´s spreads according to the degree of duration mismatch should be reflected in the Middle Buckets. Specifically, the LIAJ supposes the asset-liability duration ratio should be multiplied by the company´s spread. As a result, if the ALM mismatch is significant , the spread application ratio would be significantly reduced.

Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
American Council of Life Insurers	Office of General Counsel	No	Yes	The MAV 3 bucket approach was included in the ICS field testing for the first time in 2018. The middle bucket is an entirely new innovation. Given the long history of testing different MAV methodologies it is overly ambitious to expect that this methodology will be fit for implementation into ICS 2.0 without further substantive testing and development beyond 2019. Many concerns involve bucketing, insufficient alignment with actual ALM practices, and excessive conservatism.
The Life Insurance Association of the Republic of China	CHINESE TAIPEI	No	Yes	☐The current corporate spreads are determined only by rating information, it may counter-intuitively lead to lower grade bucket having lower spread than higher grade bucket. The current corporate spreads are determined by the rating information but ignores duration information. Such design may result in counter-intuitive pattern where lower grade bucket has lower spread than higher grade bucket. Example like USD AAA and AA spread at the end of 2017 can be observed, where spread of AAA is 60bps but only 54bps for AA. By looking through their duration information, one can find that the duration of AAA bucket is 10.6 while that of AA bucket is 6.7, meaning the bizarre pattern may be explained by duration difference, The above counter-intuitive pattern can be resolved with duration information being referenced. As referring to the USD corporate spread in 2018FT (Ticker: C0A0), we can find different maturity buckets under the same rating. For example, the spread at 2017/12/31 of AAA 1-3Y bucket is 2bps and the average duration is 2.0. Similar information, regarding spreads and duration of other maturity buckets, such as 3~5Y(C2A1), 5~7Y(C3A1), 7~10Y(C4A1), 10~15Y(C7A1), 15Y+(C8A1), can also be attained. ☐We suggest differentiating investment with different durations for adjusted spread determination to genuinely reflect the ALM practice. The liability-driven investment is the well-known feature of life insurers' strategic asset allocation. That is, for insurers with longer-term liability portfolios, investment on longer term

				assets would be a better match. In general, the yield varies not only with its rating but its duration. The current design of adjusted spread calculation does not reflect the duration difference but only rating grade, meaning IAIG would earn the same spread level in regardless of the duration of their investments. Such design would fail to reflect the yield insurers actually achieve in reality. We then suggest duration information being considered for adjusted spread determination, as a similar method used in Solvency II Volatility Adjustment design. Through obtaining duration of each rating portfolio, spread can be interpolated by the duration under each rating portfolio. Finally, the adjusted spread is calculated by weighting average of duration-interpolated spread of each rating portfolios. We believe it can more accurately capture the spread IAIGs are actually earning. We then make a simple example for illustration: We assume the duration of insurer's AA portfolio is 8. The year-end AA USD spread for 7-10Y and 10-15Y is 63bps and 100bps, while the duration of the two is 7.4 and 9.0 respectively. The duration-interpolated spread 77 bps (77= 63+(8-7.4)/(9-7.4)*(100-63)) can then be derived.
Aegon NV	The Netherlands	No	Yes	The middle bucket relaxes several of the criteria of the top bucket. One of these is that for the middle bucket contracts can include future premiums as long as these future premiums are 'contractually fixed'. From the Field Testing Q&A process, we understood that the term 'contractually fixed' refers to contracts that have completely determined future premiums as regard to their dates and values. This interpretation seems to assume that there is no tolerance for even the slightest uncertainty in future premiums for, for example, Group business for which actual premiums paid are dependent on development of staff at the client (e.g. salary increases and turnover). For many product lines, the level of premiums is predictable to a high extent. Moreover, not allowing for any uncertainty seems to be at odds with criterion e) for the middle bucket (technical specifications paragraph 124). This criterion includes a materiality test using the ICS Lapse risk charge, but the lapse risk charge encompasses uncertainty in both cash inflows (premiums) and outflows (claims and expenses).
Legal & General	UK	No	Yes	We do not understand the rationale for internal ratings not to be used in determining the addition to discount rate - further detail is set out in our response to Q27.

				However, subject to this and the points raised to other questions relating to Middle Bucket, we are broadly supportive of the methodology.
Association of British Insurers	United Kingdom	No	Yes	Cashflow matching: The ABI does not believe that strict cash flow matching is necessary to be able to earn a liquidity premium, and therefore this should not be an explicit criterion. Instead, we suggest that a more qualitative check should be performed on strength of firms' ALM practices and policies. Managing individual portfolios: The requirements to manage the Middle Bucket portfolio separately from other lines of business results in sub-optimal ALM methodology, as it ignores synergies and natural hedges across various lines of business. The ABI would also note that the requirements on surrender options and quantifying lapse risk are not practical to evidence; there is also insufficient justification for these criteria.
AIG	United States	No	Yes	The calculation of the average risk-corrected spread is based on WAMP using IAIS prescribed spreads with a 90% application ratio. Since the spread is not derived from spreads actually earned by the IAIG, the middle bucket calculation methodology has the potential to introduce basis risk, excessive balance sheet volatility and procyclicality. Furthermore, an application ratio lower than 100% suggests that more cash flow matching is always better than less which is contradictory to ICP 15 (15.4.2): "This requirement to take into account the characteristics of the liabilities does not necessarily place a requirement on the insurer to employ an investment strategy which matches the assets and the liabilities as closely as possible." We believe the calculation methodology should be revised to better align with insurance company ALM practices such as by applying principles, concepts, and techniques from the "own assets with guardrails" (OAG) approach which can be used to inform this revision process.
National Association of Mutual Insurance Companies	United States	No	Yes	See NAMIC response to question 7 and 11. NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.

Prudential Financial, Inc.	United States of America	No	Yes	In addition to our comments in response to Question 27, which are also applicable to the Middle Bucket, the following elements need to be enhanced: + Market specific realistic long-term spread assumptions must be developed + Data sources and methodologies for calculating the spread and risk corrections should be documented and made available to the public
Northwestern Mutual	USA	No	Yes	Because under the Three-Bucket approach the classification of liabilities by bucket and the discount rates that apply to each bucket are interrelated, we comment on the entire methodology rather than individual aspects of it. Therefore, the following comments pertain to questions 23, 24, 27, 30, and 34. These comments come from our perspective as a US mutual life insurance company whose primary liabilities are for participating whole life insurance. While we make general recommendations, the concerns we raise arise specifically from the way the Three Bucket approach treats US participating whole life insurance When valuing assets and liabilities, the yield curves used to discount future cash flows need to be consistent with the risk characteristics of those cash flows. See, e.g., ICP 14.2.2. While the Three-Bucket approach recognizes that the discount rates used to value liabilities should vary depending on the risk profile of the liabilities, it fails to appropriately classify liabilities by risk profile and set discount rates accordingly. The approach also fails to maintain consistency between the valuation of assets and liabilities. Because of these issues, the approach will lead to spurious volatility in financial results and improper valuations of contractual guarantees. Specifically, the Top and Middle Bucket criteria place too much emphasis on cash flow matching. This limited view of risk ignores that asset and liability risks can be well matched even if cash flows do not appear to be, and vice versa. To demonstrate this, consider the following examples. • A participating contract that transfers risk to the policyowner can appear to have a cash

				flow mismatch based on a comparison of expected asset and liability cash flows. However, as experience changes, the non-guaranteed elements of the contract will be adjusted such that net cash flows will be relatively stable under a wide range of possible scenarios. • A non-participating contract which does not transfer risk to the policyowner can appear to have well matched cash flows based on a comparison of expected asset and liability cash flows. However, as experience changes, net cash flows will fluctuate much more than what they would for the participating contract in the prior example. Other concerns with the Top and Middle Bucket criteria include: • Not allowing liabilities involving future premiums or surrender options with the potential for the surrender value to be greater than the value of the underlying assets in the Top Bucket is overly restrictive. These characteristics alone do not necessarily indicate riskier liabilities. • Having a criterion in the Middle Bucket based on the lapse risk from the ICS calculation is concerning, given the extreme nature of the mass lapse stress test (see our response to question 84). To appropriately classify liabilities based on risk and value them under a MAV framework, the criteria in the Three-Bucket approach should be replaced by criteria that provide a more holistic view of risk and consider the amount of risk transferred to policyowners vs. retained by the company. One simple way of accomplishing this would be to base the classification on how well the effective duration of assets and liabilities are aligned. Because effective durations consider how cash flows vary as interest rates change, they would provide a better measure of the match between assets and liabilities and would reflect the transfer of interest rate risk from a company to a policyowner. While this change would improve the classification of liabilities under the Three-Bucket approach, a more ideal solution would consider how sensitive cash flows are to shocks to all key risk factors, not just interest rates. This more comprehensive approach would not necessarily need to add overly burdensome complexity to the valuation, as the sensitivity measure could be tied directly to the scenarios used to calculate the ICS capital requirement.

				The mechanics for determining spread adjustments within the three buckets also include elements that, unless revised, will cause an insurer's liability discount rate to deviate from reflecting the true risk characteristics of the firm's liabilities and assets. These elements include: 1. Absence of credit for equity investments in establishing the spread adjustment; 2. Lack of clear linkage between application ratios and risk characteristics of the three buckets; 3. Lack of transparency on the origin of the provided spreads, and insufficient granularity in the spreads applicable to the middle and general buckets, which should vary by more characteristics such as asset type (e.g., public, private, mortgage loans) and tenor; and 4. Excess conservatism in the middle and general bucket spreads. Additionally, the discrete breakpoints created by the Three-Bucket approach mean that liabilities on the borderline between buckets will see large swings in valuation results with small changes in conditions. A continuous approach would avoid these "cliff effects". As indicated in the prior sections, incremental changes could be made to help improve the Three-Bucket approach. However, we believe a better solution exists that would address the key limitations of the Three-Bucket approach while still adhering to the core principles underlying its development. Under this alternative solution, the discount rate curve used to value liabilities would be set as follows: • First, a gross discount rate curve would be set that reflects the total expected return on a portfolio of assets like those the company actually invests in. This curve would reflect a blend of all the kinds of assets in the portfolio. Due to the subjectivity of expected returns on assets like equities, rules would need to be developed to standardize the expected returns on such investments for purposes of developing the gross discount rate curve. • Next, a baseline valuation of the liabilities and a baseline ICS capital requirement

				calculation would be performed. • Then, the baseline ICS capital requirement would be converted into a risk charge. This risk charge would be calculated by applying a cost of capital factor to the ratio of the baseline ICS capital requirement to the baseline liability value. For example, if the ratio of the ICS capital requirement to the liabilities is 8% and the cost of capital factor is 5%, then the resulting risk charge would be 0.40%. Rules would be developed to standardize how the cost of capital factor is set. • Finally, the risk charge calculated in the prior step would be deducted from the gross discount rate curve to come up with the final adjusted discount rate curve. We proposed this alternative in our response to the 2016 ICS consultation based on our field testing learnings that year, and we renew our recommendation here. Again, our primary concern in making this recommendation is that the ICS valuation methodology appropriately recognize the features of US participating individual whole life insurance by which risk is shared between the company and the policyowner. The alternative we propose does this by better identifying the true risk profile of the liabilities and adjusting the discount rate accordingly. It considers all key risks, not just interest rate risk, and reflects how much risk is transferred to policyowners vs. how much is retained by the company. In addition, by being company-specific both in terms of the initial gross spread adjustments to the risk-free curve and the risk charge deducted from those gross spreads, it improves consistency in valuation of assets and liabilities. And, by avoiding discrete break points, it reduces unwarranted volatility in financial results.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Field testing is likely to show that the criteria are too restrictive and that some companies may struggle to find any products that could fit into the middle bucket. The cash flow testing should take a holistic approach and allow any surpluses of income over outgo to be taken into account. This does not mean taking account of investment earnings but making an allowance for surplus cash flows along the way which could be subject to a limit such as the 10% currently in the technical specifications. See also comment regarding asset management in relation to the top bucket.
Actuarial Institute of Chinese Taipei, AICT	Chinese Taipei	No	Yes	Incorporating duration information in the determination of spread adjustment The current adjusted spread calculation under 3-Bucket approach disregards duration information and allow only rating information for determining current corporate spreads. Evidence can be observed that USD AAA has a higher spread (2017/12/31: 60bps) compare to AA corporate bond (2017/12/31: 54bps) without considering the respective duration (AAA: 10.6, AA: 6.7). However, the counter-intuitive-pattern can be resolved with duration information being referenced. As referring to the USD corporate spread in 2018FT (Ticker: C0A0), we can find different maturity buckets under the same rating. For example, the spread at 2017/12/31 of AAA 1-3Y bucket is 2bps and the average duration is 2.0. Information regarding spreads and duration of other maturity buckets, such as 3~5Y(C2A1), 5~7Y(C3A1), 7~10Y(C4A1), 10~15Y(C7A1), 15Y+(C8A1), can also be attained. The liability-driven investment is a common life insurer's asset allocation strategy to match longer-term liability portfolios. In general, investment yield can varies with its rating and the respective duration. The current methodology of adjusted spread calculation disregards duration difference and only taking rating grade into account, meaning IAIG would earn the same spread level in regardless of the duration of their investments. Such design would fail to reflect the yield insurers actually achieve in reality. As a result, we would propose that the duration information being considered for adjusted spread determination, as a similar method used in Solvency II Volatility Adjustment design. Through obtaining duration of each rating portfolio, spread can be interpolated by the duration under each rating portfolio. Finally, the adjusted spread is calculated by weighting average of duration-interpolated spread of each rating portfolios. We believe it can more accurately capture the spread IAIGs are actually earning.

				An example for referencing the duration information is given below: We assume the duration of insurer's AA portfolio is 8. The year-end AA USD spread for 7-10Y and 10-15Y is 63bps and 100bps, while the duration of the two is 7.4 and 9.0 respectively. The duration-interpolated spread 77 bps can then be derived (77= 63+(8-7.4)/(9-7.4)*(100-63)).

Q31 Section 5.1 Is the design of the shared currency basis risk mitigation mechanism appropriate for ICS Version 2.0? If "no", please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	Insurance Europe supports the inclusion of the currency basis risk mitigation mechanism. While the current design appears to be reasonable, Insurance Europe encourages the IAIS to undertake thorough testing of the proposal to ensure that it works as intended in all market environments and does not create cliff-edge effects on IAIG's solvency positions. Priorities of the testing exercise should focus around the timely activation of the mitigation mechanism (i.e. prompt reaction to market spread movements), the persistence of the measure (i.e. the measure should remain activated during the entire period of stress) and the avoidance of cliff effects; disregarding these key aspects could negatively impact the

				effectiveness of the measure and insurer's investment strategies, leading potentially to perverse incentives in their asset allocations.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	Yes	We are comfortable with this.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q32 Section 5.1 Is the design of the foreign assets basis risk mitigation mechanism appropriate for ICS Version 2.0? If “no”, please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	No	No	The application ratio for the spread after the foreign assets basis risk mitigation mechanism should be 100%. Illiquidity risk premium of foreign assets is calculated conservatively, so applying application ratio lower than 100% doesn’t make sense.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• The application ratio should be 100%. The non-liquidity risk premium in foreign assets is calculated conservatively, and it is not necessary to set the application ratio lower than 100%.

Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	No	The 5% floor before any uplift is applied and the 50% haircut to uplifts both seem arbitrary and uneconomic. If the currency mismatch is well hedged then it we believe that the full uplift should be applied in all cases.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	We support an adjustment to recognize excess spreads of assets denominated in different currencies from that of the liabilities provided that the allocation of assets in different currencies represents an insurer's sustainable long-term ALM strategies with its currency and duration matching objectives. In the 2018 Field Test, only 50% of the excess spread was recognized. We believe 100% of the excess spread should be recognized based on our view that liability valuation should fully reflect the insurer's ALM practices. Since the excess return is post hedging costs, the IAIS should clarify if duration hedging is required in addition to currency risk hedging.
Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q33 Section 5.1 Is the application ratio considered for the General Bucket appropriate for ICS Version 2.0? If "no", please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	See question 28.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	
Insurance Europe	Europe	No	No	Insurance Europe notes that the IAIS has not provided justification for the 80% factor. In theory, the risk-corrected spread can be earned by insurers in total. Applying a reduction factor, therefore, contradicts the market value based approach.
German Insurance Association	Germany	No	No	We prefer an application ratio of 100% instead of 80%. A justification for the 80% factor is not provided. The risk-corrected spread can be earned by insurers in total, applying a factor contradicts the market value based approach, and an additional supplement is already added to the technical provisions (the MOCE).
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	See our response to Q30.
Dai-ichi Life Holdings, Inc.	Japan	No	No	The application ratio of spread should decrease in accordance with the degree of ALM matching like OAG method. If so, it isn't necessary to discuss the application ratio, which causes artificial mismatch between assets and liabilities.
General Insurance Association of Japan	Japan	No	Yes	

The Life Insurance Association of Japan	Japan	No	No	• The application ratio should be 100%. Basis risk is a symmetrical risk that works both positively and negatively and does not require the application ratio of less than 100%.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
American Council of Life Insurers	Office of General Counsel	No	No	As we noted above in Questions 26 and 28, ACLI believes the use of application ratios represents an arbitrary haircut to asset spreads. ACLI believes the rationale of using application ratios is in general debatable, and further it seems unlikely that the application ratios of 100%/90%/80% tested in the 2018 field test have been calibrated in any meaningful form.
Legal & General	UK	No	Yes	We are comfortable with this application ratio.
Association of British Insurers	United Kingdom	No	Yes	The ABI considers the application ratio of 80% for the General Bucket to be appropriate, reflecting the less strict nature of the eligibility criteria and the higher basis risk in the spread calculation when compared with the Top and Middle Buckets.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	No	Liability discount curves should reflect a full pass through of the weighted average credit spread adjustment, net of expected defaults – i.e., the application ratio should be 100%. Any haircut resulting in less than full recognition of the portfolio spread gives rise to distorted results and non-economic volatility.
MetLife, Inc	USA	No	No	As set out in response to Q24 and 28 above we propose that use of different application ratios reflect the false premise that more cash flow matching is always better than less and contrary to the way most insurers manage their assets and liabilities. We suggest a 100% pass-through rate for all buckets, including the General Bucket.

Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q34 Section 5.1 Are there any further comments regarding the General Bucket methodology? Please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	It is premised on a one-size-fits-all determination of spreads (average asset mix, average spread assumption). Clearly the industry does not invest based on the 'average', and as a result, using the general bucket approach to determine CEL will misrepresent the risk for the entity. Ultimately, it does not conform to ICS Principle 4 (reflects all material risks), ICS Principle 5 (comparability of outcomes), or ICS Principle 6 (promotes sound risk management).
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	

Insurance Europe	Europe	No	Yes	Insurance Europe notes that some insurers manage risk and run ALM on a global and consistent basis and therefore will put all their liabilities in a single bucket without unbundling their balance sheet into several buckets. The current general bucket without refinements is not suitable for this purpose. Therefore, suitable refinements of the general bucket should be explored in order to transform it into an approach that can be effectively and consistently used by all IAIGs. Insurance Europe notes that in the field test specifications paragraph 152, the IAIS uses a hypothetical 15-year bond. Insurance Europe believes it would be more appropriate to use the point based on the average duration of the insurance liabilities as this is the duration over which the adjustment is applied. Furthermore, in paragraph 153, a duration of 10 years is used. Insurance Europe believes this is inconsistent and it could lead to the recognition of additional basis risk.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	The current representative portfolio for general bucket denominated in USD may be too restrictive. If investment portfolios backing short term products, which are little affected by discount rates, are included in the representative portfolio, they should be excluded from calculation. Representative portfolio for general bucket should be actually 'representative' of the types of assets backing long term business.
General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	

Legal & General	UK	No	No	We are broadly comfortable with the General Bucket methodology, aside from the uneconomic specification of the foreign assets basis risk mitigation mechanism (covered in Q32).
Association of British Insurers	United Kingdom	No	Yes	As discussed in Paragraphs 127-134 of the consultation document, the representative portfolio approach for the General Bucket could have the effect of causing firms to invest in higher-yielding assets to reduce the volatility in capital resources (especially where liability duration is significantly longer than asset duration), or incentivise holdings in even shorter asset durations for gains in an increasing yield environment. The problem is exacerbated by most liabilities falling into the General Bucket due to the restrictive requirements of the Top and Middle Buckets.
National Association of Mutual Insurance Companies	United States	No	Yes	The ICS is not yet fit for purpose. Significant additional work is needed to achieve an appropriate global capital standard and it may be completely unachievable. The valuation method, appropriate risks and their factors should be determined by the local jurisdictional supervisor. NAMIC disagrees with the mandate of a standard method, the 99.5% VaR calibration level and the IAIS dictating the factors to be used in the formula. Jurisdictional flexibility is the appropriate way to capture these risks with mutual recognition and shared understanding of the jurisdictional approach at supervisory colleges. See also NAMIC response to question 7 and 11.
Prudential Financial, Inc.	United States of America	No	Yes	As with the other buckets, we believe the general bucket must be improved. Specifically, we believe the underlying “representative portfolio” should reflect a typical asset mix and ALM strategies of a representative set of insurance market participants engaged in similar business to that of the IAIG. This would include making distinctions: + Between Life and General insurers + In instances where unique product portfolio, ALM strategies and/or risk tolerance appropriately deviates from the overall industry in a substantial manner (e.g., within Japan and Korea, domestic versus foreign insurers) In addition, the changes called for in our responses to questions 27 (Top Bucket) and 30 (Middle Bucket) are also applicable to the General Bucket.

				Further, we highlight the following substantial and unintuitive changes that occurred in the General Bucket between the 2017 vs. 2018 Field Tests, + Ineligible assets in the GBP portfolio increased from 24.4% to 54.2%; and + Sovereign bonds in KRW portfolio decreased from 36.3% to 25.7%. Such volatility leads to distortions and inappropriate non-economic volatility in an insurer's ICS results from year to year. To achieve more stability in representative portfolio compositions at least the last 3-years of insurer asset portfolio mixes should be averaged.
MetLife, Inc	USA	No	Yes	The application of a term structure to the spread adjustment would be more appropriate for long-term business and improve the General Bucket.
Northwestern Mutual	USA	No	Yes	Because under the Three-Bucket approach the classification of liabilities by bucket and the discount rates that apply to each bucket are interrelated, we comment on the entire methodology rather than individual aspects of it. Therefore, the following comments pertain to questions 23, 24, 27, 30, and 34. These comments come from our perspective as a US mutual life insurance company whose primary liabilities are for participating whole life insurance. While we make general recommendations, the concerns we raise arise specifically from the way the Three Bucket approach treats US participating whole life insurance When valuing assets and liabilities, the yield curves used to discount future cash flows need to be consistent with the risk characteristics of those cash flows. See, e.g., ICP 14.2.2. While the Three-Bucket approach recognizes that the discount rates used to value liabilities should vary depending on the risk profile of the liabilities, it fails to appropriately classify liabilities by risk profile and set discount rates accordingly. The approach also fails to maintain consistency between the valuation of assets and liabilities. Because of these issues, the approach will lead to spurious volatility in financial results and improper valuations of contractual guarantees.

				Specifically, the Top and Middle Bucket criteria place too much emphasis on cash flow matching. This limited view of risk ignores that asset and liability risks can be well matched even if cash flows do not appear to be, and vice versa. To demonstrate this, consider the following examples. • A participating contract that transfers risk to the policyowner can appear to have a cash flow mismatch based on a comparison of expected asset and liability cash flows. However, as experience changes, the non-guaranteed elements of the contract will be adjusted such that net cash flows will be relatively stable under a wide range of possible scenarios. • A non-participating contract which does not transfer risk to the policyowner can appear to have well matched cash flows based on a comparison of expected asset and liability cash flows. However, as experience changes, net cash flows will fluctuate much more than what they would for the participating contract in the prior example. Other concerns with the Top and Middle Bucket criteria include: • Not allowing liabilities involving future premiums or surrender options with the potential for the surrender value to be greater than the value of the underlying assets in the Top Bucket is overly restrictive. These characteristics alone do not necessarily indicate riskier liabilities. • Having a criterion in the Middle Bucket based on the lapse risk from the ICS calculation is concerning, given the extreme nature of the mass lapse stress test (see our response to question 84). To appropriately classify liabilities based on risk and value them under a MAV framework, the criteria in the Three-Bucket approach should be replaced by criteria that provide a more holistic view of risk and consider the amount of risk transferred to policyowners vs. retained by the company. One simple way of accomplishing this would be to base the classification on how well the effective duration of assets and liabilities are aligned. Because effective durations consider how cash flows vary as interest rates change, they would provide a better measure of the match between assets and liabilities and would reflect the transfer of interest

				rate risk from a company to a policyowner. While this change would improve the classification of liabilities under the Three-Bucket approach, a more ideal solution would consider how sensitive cash flows are to shocks to all key risk factors, not just interest rates. This more comprehensive approach would not necessarily need to add overly burdensome complexity to the valuation, as the sensitivity measure could be tied directly to the scenarios used to calculate the ICS capital requirement. The mechanics for determining spread adjustments within the three buckets also include elements that, unless revised, will cause an insurer's liability discount rate to deviate from reflecting the true risk characteristics of the firm's liabilities and assets. These elements include: 1. Absence of credit for equity investments in establishing the spread adjustment; 2. Lack of clear linkage between application ratios and risk characteristics of the three buckets; 3. Lack of transparency on the origin of the provided spreads, and insufficient granularity in the spreads applicable to the middle and general buckets, which should vary by more characteristics such as asset type (e.g., public, private, mortgage loans) and tenor; and 4. Excess conservatism in the middle and general bucket spreads. Additionally, the discrete breakpoints created by the Three-Bucket approach mean that liabilities on the borderline between buckets will see large swings in valuation results with small changes in conditions. A continuous approach would avoid these "cliff effects". As indicated in the prior sections, incremental changes could be made to help improve the Three-Bucket approach. However, we believe a better solution exists that would address the key limitations of the Three-Bucket approach while still adhering to the core principles underlying its development. Under this alternative solution, the discount rate curve used to value liabilities would be set as follows:

				• First, a gross discount rate curve would be set that reflects the total expected return on a portfolio of assets like those the company actually invests in. This curve would reflect a blend of all the kinds of assets in the portfolio. Due to the subjectivity of expected returns on assets like equities, rules would need to be developed to standardize the expected returns on such investments for purposes of developing the gross discount rate curve. • Next, a baseline valuation of the liabilities and a baseline ICS capital requirement calculation would be performed. • Then, the baseline ICS capital requirement would be converted into a risk charge. This risk charge would be calculated by applying a cost of capital factor to the ratio of the baseline ICS capital requirement to the baseline liability value. For example, if the ratio of the ICS capital requirement to the liabilities is 8% and the cost of capital factor is 5%, then the resulting risk charge would be 0.40%. Rules would be developed to standardize how the cost of capital factor is set. • Finally, the risk charge calculated in the prior step would be deducted from the gross discount rate curve to come up with the final adjusted discount rate curve. We proposed this alternative in our response to the 2016 ICS consultation based on our field testing learnings that year, and we renew our recommendation here. Again, our primary concern in making this recommendation is that the ICS valuation methodology appropriately recognize the features of US participating individual whole life insurance by which risk is shared between the company and the policyowner. The alternative we propose does this by better identifying the true risk profile of the liabilities and adjusting the discount rate accordingly. It considers all key risks, not just interest rate risk, and reflects how much risk is transferred to policyowners vs. how much is retained by the company. In addition, by being company-specific both in terms of the initial gross spread adjustments to the risk-free curve and the risk charge deducted from those gross spreads, it improves consistency in valuation of assets and liabilities. And, by avoiding discrete break points, it reduces unwarranted volatility in financial results.

Property Casualty Insurers Association of America (PCI)	USA	No	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q35 Section 5.1 Should the ICS include an adjustment above the base yield curve at the LTFR maturity? If “yes”, how should it be calibrated? Please provide sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	As for the LTFR, the calibration of the adjustment should be based on historical data. The data would be the same as those used at the valuation date for the adjustment of the yield curve below the last observed term (LOT).
Office of the Superintendent of Financial Institutions (OSFI)	Canada - OSFI	No	Yes	The ultimate adjustment above the base yield curve should correspond to long-run average credit spreads in the corporate bond market, net of long-run average default losses. The rationale for including such a spread is that, over long time periods, the risk and liquidity premiums are likelier to be earned with less variability. Thus, over the long term, an insurer can be more certain that it will earn fixed-income risk and liquidity premiums than over shorter terms.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	We support the view that spreads can be earned on very long term maturities and therefore we should allow for some spread on LTFR. But the proposal of using average historical data of spot rates for bonds with varying maturities do have technical flaws. As the calibration of LTFR spread would be difficult, one possible way is to use expert judgement to set a spread with conservatism, while using historical data as a reference.

Insurance Authority (IA)	China, Hong Kong	No	Yes	We support that the LTFR be determined using historical data instead of a fixed 10 bps spread because it aligns with the principle of market-consistent valuation of insurance liabilities.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	Insurance Europe strongly supports the proposed adjustment to the LTFR. This would enable life insurers to more accurately reflect the true economics and future investment returns that they will be able to earn. Insurance Europe believes that the valuation of liabilities should reflect the true economics of the (life) insurance business model. Requiring life insurers to discount at a risk-free discount rate does not appropriately reflect the asset-liability management techniques which insurers use to manage their liabilities. The recognition of an illiquidity premium which reflects the level of returns insurers are able to generate is vital for the viability of long-term guarantee products.
German Insurance Association	Germany	No	Yes	We strongly support the proposed adjustment to the LTFR. These would enable insurers to more accurately reflect the true economics and investment returns that they will be able to earn in the future. We believe that the valuation of liabilities should reflect the true economics of the (life) insurance business model. Requiring insurers to discount at a risk-free discount rate does not appropriately represent the asset-liability management techniques which insurers use to manage their liabilities. The recognition of an illiquidity premium which reflects the level of returns insurers are able to generate is vital especially for the viability of the long-term guarantee products.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	GFIA supports the proposed adjustment to the LTFR. This would enable life insurers to more accurately reflect the true economics and future investment returns that they will be able to

				earn. GFIA takes the view that the valuation of liabilities should reflect the true economics of the (life) insurance business model. Requiring life insurers to discount at a risk-free discount rate does not appropriately reflect the asset-liability management techniques which insurers use to manage their liabilities. The recognition of an illiquidity premium which reflects the level of returns insurers are able to generate is vital for the viability of long-term guarantee products.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	We consider the adjustment above the base yield curve should be included and it should be consistent with the calculation method of LTFR. Specifically, ICS includes 2 kinds of adjustment, one is for advanced countries and another is for emerging countries, and we believe it is appropriate to calculate the mean of past spread of each group. Although the IAIS does not make a difference in calculation of LTFR among countrys (other than target inflation rate), reflecting the difference of the spread level among those countries for the adjustment is inconsistent.
General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	Yes	• Adjustments should be made in a manner consistent with the LTFR calculation. Specifically, it is appropriate to divide jurisdictions into developed countries and emerging countries and calculate the past average spreads for each group. Although there are no differences (except for target inflation rate) between individual countries in the LTFR calculation, it is inconsistent to reflect differences in the spread levels of individual countries in the additional adjustments.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
The Life Insurance Association of the Republic of China	CHINESE TAIPEI	No	Yes	☐The spread on LTFR stands for the average spread insurers can attain over the risk-free curves given their long-term asset allocation

				For many of life insurers, the match for rather remote liability cash flows should rely on reinvestment in practice given there is no corresponding instrument accessible on the capital markets. That is, despite the liabiltiy cash flows fail to be matched by existing assets, the risk premiums over risk-free rates can be stably earned through reinvestments. We therefore support the spread on LTFR where it represents the average risk premium obtained under the long-term asset allocation. ☐Using asset weightings of general bucket with most conservative assumption, where 100% allocation on 1-3Y bucket is made for each rating portfolios, the resulting spread is signficantly higher than current 10bps. For USD denominated liabilties, using the asset weightings of general bucket with full allocation on 1-3Y bucket for each rating portfolios, the weighting average spread would be higher than 50 bps. For TWD denominated liabilities, the resulting spread is higher than 40bps under the same assumption. It can be inferred that, even with the most conservative assumption, it can be proved that the current 10 bps design is over-prudent. The over conservation would hinder the supply of the long-term protection products and the demand on such products would then fail to be satisfied and further sabotage the development of insurance industry. ☐To approximate the asset allocation equilibrium, we suggest using medium-to-long term average asset weightings to achieve the stability goal. To avoid temporary change on asset allocation, we suggest applying 3-5 years average of asset weightings, with respect to rating and years-to-maturity, as an proxy for the long-term asset allocation under middle bucket. Meanwhile, 3-5 years average of the asset weightings of liabilities demoniated in the same currency being used for general bucket. Consequently, the stability nature and market consistency as well as differentiated strategic asset allocation are all taken into consideration.
Legal & General	UK	No	Yes	We would be supportive of making some kind of adjustment, for broadly the reasons set out in the consultation document paragraph 124. In particular, there would appear to be a substantial volume of evidence in historical data that spreads over risk-free should be non-

				zero at all durations. The methodology to address this issue set out in paragraph 123 of the consultation seems broadly sensible.
Association of British Insurers	United Kingdom	No	Yes	The ABI supports the proposed adjustment to the LTFR. This would enable life insurers to more accurately reflect the true economics and future investment returns that they will be able to earn. The valuation of liabilities should reflect the true economics of the insurance business model. Requiring life insurers to discount at a risk-free discount rate does not appropriately reflect the asset-liability management techniques which insurers use to manage their liabilities. The use of longest available historical data for calibrating these assumptions, as per the methodology described in the consultation document, is appropriate from our point of view.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with specificity. But any specification that support a one-size-fits-all prescriptive approach is not supported by NAMIC members.
Prudential Financial, Inc.	United States of America	No	Yes	We believe an adjustment above the base yield curve at the LTFR maturity is critical for appropriately valuing insurance liabilities. We are supportive of the spread adjustments provided in Table 3 (“Spread adjustment for selected countries”) of the consultation document as they are based on historical spread averages for a representative insurer’s portfolio mix over a sufficiently robust period of time. As included in the table, we support exclusion of extreme data points (such as those experienced during the 1-year period between 2008-2009) that may inappropriately distort average spread levels. Further, we disagree with the rationale provide in Section 125 for why a 0 spread add on to the LTFR would be appropriate for the following reasons: + Current estimate liabilities should be valued using current market data, where available, and best estimate assumptions where current market data is not available. Historical spread data is a suitable basis for a best estimate assumption of reinvestment asset spread levels beyond the last observable tenor.

				+ It makes sense to use the most robust spread data available (i.e., 10-year spot spreads) to formulate a long-term adjustment to the 1 year forward rate. + Any risk associated with the unpredictability of insurance liabilities is best measured through capital requirements; it should not be embedded in the measurement of current estimate liabilities or available capital by not recognizing an appropriate spread adjustment to the LTFR.
MetLife, Inc	USA	No	Yes	A spread adjustment should be added to the LTFR to reflect the higher expected returns (net of defaults) on very long term investments such as equities, private equities and infrastructure loans. Insurers typically invest in such asset types to back very long-tailed liabilities. We do not necessarily agree with the approach as set out in paragraph 123 for determining the spread adjustment on a per currency basis because it introduces substantial basis risk as the long term investments of the IAIG may not mirror the corporate bond mix assumed in determining the spread adjustment. We also note that the spread adjustment to the LTFR varies greatly between different currencies and this may lead to an unstable capital ratios if this assumption is updated on a regular basis. We do not agree with the proposal of adding no spread to the LTFR as this is unrealistic given the long-term investment strategy of the IAIG and, hence, would overstate the value of the long-term liabilities and make the provision of such products uneconomical. On a slightly separate but related LTFR issue of importance, we would reiterate our concern raised in response to Q19 above with the revised risk-free LTFR methodology which results in all developed markets being grouped together (e.g. EU, Japan, Korea and US) and thereby inconsistent LTFRs for economies within this group resulting in inappropriate capital ratios. The potential impact on Korea is a good illustration. Based on Bank of Korea historical data since 1991 the LTFR is estimated at 5.5%, and currently set at 4.5%. The IAIS methodology would decrease Korea's LTFR to 3.8% on par with the EU and US, with a sizeable impact on ratios. The risk free rates LTFR methodology should be set centrally by the IAIS but the calibration of the country specific LTFRs should be carried out by the relevant supervisors for each

				country/region, using data that is specific to that economy. The IAIS should be responsible for ensuring the relative differences between the calibrated LTFRs is consistent with the economic fundamentals underlying the different economies.
Northwestern Mutual	USA	No	Yes	Yes, an adjustment should be included above the base yield curve at the LTFR maturity. Historical data strongly supports an adjustment greater than the current 10 bps placeholder. We suggest including an adjustment that is consistent with spreads in the observed part of the yield curve.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Currently there is a placeholder for spread above the LTFR base of 10 bps (0.1%). This placeholder should be replaced with a spread which is related to actual yields just as the spread in the first segment is related to actual yields, be they related to an actual portfolio, or a representative portfolio. It seems reasonable, since the LTFR is a long term rate, to associate it with actual historical long term yields. Long term yields vary from currency to currency and investment strategies vary as well. In some jurisdictions insurers invest heavily in sovereign bonds while in others these may form a modest part of the portfolio. Reviewing long term spreads in various jurisdictions and their prevalent investment strategies over a relatively long period of time, using public information, we see spreads that can vary from well above 1% to as low as 0.1%. While on a theoretical basis it might make sense to have separate spreads for various jurisdictions, the current LTFR rate is partitioned between advanced economies and developing economies. We therefore suggest striking a balance between the theoretical and the practical by employing an anchor spread in the region of ½% which can then be prudentially adjusted somewhat to follow the structure of the base LTFR for developed and developing economies.

Actuarial Institute of Chinese Taipei, AICT	Chinese Taipei	No	Yes	Spread should be added to the base yield curve at the LTFR maturity to provide a better reflection of the return that insurer can earn from long-term investment Adjustment above the base yield curve at the LTFR maturity should be made as it is a common ALM practice for many life insurance to rely on reinvestment to match remote liability cash flow given there is no corresponding instrument with similar duration accessible in the capital market. That is, despite the liability cash flows fails to be matched by existing assets, the risk premium over risk-free rates can be stably earn through reinvestment. Therefore adjustment or spread should be made to the LTFR as it represents the average risk premium that can be earned in the long run. For USD denominated liabilities, using the asset weightings of general bucket with full allocation on 1-3Y bucket for each rating portfolios, the weighting average spread would be higher than 50 bps. For TWD denominated liabilities, the resulting spread is higher than 40bps under the same assumption. It can be inferred that, even with the most conservative assumption, it can be proved that the current 10 bps design is over-prudent. The over conservation would hinder the supply of the long-term protection products and the demand on such products would then fail to be satisfied and further sabotage the development of insurance industry. To avoid the impact of short term asset allocation variation when approximating the long term asset allocation, we suggest applying 3-5 years average of IAIGs' weighted average asset allocation based on rating and years-to-maturity under middle bucket and apply 3-5 years average of the asset weighting of liabilities denominated in the same currency for the general bucket. This methodology will allow stability and market consistency to be factored into the framework and at the same time also taken into consideration of the differentiated strategic asset allocation.

Q36 Section 5.1 What is the most appropriate technical approach to address the issue identified? Please provide sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Paragraph 134 in the consultation document seems to confuse higher yielding with lower credit quality. The general bucket design could incent investment in higher yielding, high credit quality, short-term assets that are not appropriate to long-term liabilities. It is the duration mismatch that is the issue, not the credit quality, and as such it does not make sense to address asset liability duration mismatch within the credit spread risk calculation. ALM duration mismatch should be addressed as part of the ALM governance process as described in ICP15, and through calculating a liability discount rate that is dependent on the term of the actual assets held by the entity (not an assumed representative asset mix as is the case with the general bucket).	
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	The Top and Middle Bucket approaches assume good asset/liability cash flow matching. A direct way of measuring the materiality of unmatched cash flows is to report (for each maturity) expected liability cash flows and expected asset cash flow (considering, in particular, their probability of default). This approach requires non-ambiguous definitions, which may reduce the set of applicable products and assets (e.g. by excluding floating rate bonds). This reporting requirement would only apply to the Top and Middle Bucket.	
Dai-ichi Life Holdings, Inc.	Japan	No	We believe that the OAG method that adjusts a guardrail appropriately is the best technical approach. As we answered to Q22, the introduction of bucket approach may bring a result, such as destruction of the level playing field by a cliff effect, difficulty of stable risk management of IAIG. We deeply understand the necessity of appropriate guardrails which prevent IAIGs from accelerating their investment in risk assets more due to overshooting. If the IAIS would believe the guardrail of OAG which industries propose would not work well, we would like to suggest that the IAIS should adjust the guardrail of OAG appropriately instead of adopting the bucket approach. Subject to the setting of an appropriate guardrail, it is necessary for the prospective spread	

			by the investment in stocks and in foreign currency bond to be reflected adequately and fairly. For example, we consider stocks can be treated as same as BBB corporate bonds. Also, as for super long-term reinvestment premise, we believe adjusting appropriately will be a key solution.	
The Life Insurance Association of Japan	Japan	No	- The LIAJ thinks that it is the OAG approach which appropriately modified guardrails. - Under the OAG approach, the discount rate between assets and liabilities is consistent and the occurrence of overshooting is limited. - If the risk amount is calculated on a real world basis and reflects the risk arising from individual portfolios, the average expected return on the individual portfolios expected in the real world should be taken into account with respect to available capitals. Appropriate guardrails are necessary to prevent the insurer from accelerating investments in risky assets, and in this respect, if the current OAG guardrails are not working, they should be modified. The spread expected from investments in equities and foreign-currency bonds should be appropriately reflected, given the development of appropriately modified guardrails. For example, equities may be considered as BBB-rated bonds. - Regarding the bucket approach, the LIAJ concerns that the cliff effect occurs between buckets. A significant difference in discount rates due to a slight difference in product features would undermine the level of playing field. The cliff effect is less likely to occur through the OAG because the mismatch situation is continuously reflected in the OAG. Along with the Three-Bucket Approach, improvements in the OAG should be targeted.	
American Council of Life Insurers	Office of General Counsel	No	In addition to dealing with the overly restrictive bucketing criteria, asset spreads, reference portfolios and long-term forward rates should be more specific to ALM practices and geographical profiles of insurers. Additionally, there are several elements in the MAV 3 bucket approach that result in an inappropriate level of embedded conservatism in outcomes. These include: 1) No recognition for equity (and equivalent) assets that are widely used in practice to back	

			long-term liabilities. This topic has been widely discussed in other forums and these discussions will not be repeated here, but in the context of the MAV calculation, excluding these assets results in this business being treated as "duration mismatched'. Consequently, these blocks are valued under the general bucket representative portfolio approach, where clearly the assumptions used for the general bucket approach are not actually "representative' of the types of assets backing long term business. 2) The WAMP asset spreads appear to have been determined without reference to a term structure, and consequently appear to be very conservative relative to the spreads earned in practice on assets backing liabilities. This is particularly noticeable on long term business where long dated (eligible) assets backing this business would typically earn an illiquidity premium. We believe the appropriate approach is to have a term structure of spreads. 3) The use of application ratios represents an arbitrary haircut to asset spreads. As noted in previous discussions, the rationale of the use of applications ratios is in general debatable, and further it seems unlikely that the application ratios of 100%/90%/80% tested in the 2018 field test have been calibrated in any meaningful form. 4) The long term spread added to LTFR fails to appropriately reflect the spreads insurers make on its long-term investment portfolio. The current 10bps placeholder is overly conservative and is inconsistent with the overwhelming empirical evidence supporting higher long-term spreads.	
Legal & General	UK	No	We consider that the current approach to spread addition to liabilities within the General Bucket is materially appropriate and that the level of spread addition available to the discount rate is unlikely to be significant enough to motivate the kind of extreme behaviour set out in the text, particularly given the negative implications that would result on the required capital. It is also worth bearing in mind that ICS is going to be managed in parallel with a number of other metrics for IAIGs in scope, and these other metrics will place constraints on an IAIG's appetite for extreme positions. We would note that in some cases it may well be appropriate for an IAIG to be exposed to decreases in spreads, depending on the specifics of their exposure.	

Prudential Financial, Inc.	United States of America	No	We disagree with the conclusion that the credit spread adjustment is "overshooting" in Section 131 based on the fact that spread widening creates a benefit to capital resources. Despite close linkages between assets and liabilities, life insurers often have duration shortfalls/ALM mismatches because of unhedgeable characteristics in our long-term liabilities - predominantly from liability exposures beyond the last observable tenor. For ALM shortfall positions, in a market value-based approach, spread widening will cause liabilities to decline in value more than their supporting assets do which reflects the benefit insurers would experience from reinvesting in higher yielding environments. Any effort to address this result will create distortions and volatility in the measurement of ALM positions (short, matched long). A better means to avoid this perceived "overshooting" is to identify terminal maturity points for fixed income asset classes and migrate from current spreads to long-term average spreads at that terminal maturity point. This would stabilize longer dated liability spreads and be more reflective of where credit spreads are currently matched between assets and liabilities.	
Northwestern Mutual	USA	No	The recommended changes to the Three-Bucket approach described in our response to Q23-34 would help address the basis risk issues identified with the General Bucket. To reiterate, allowing spread adjustments to vary by more company-specific characteristics within the Middle and General Buckets would help reduce basis risk and improve the consistency between asset and liability valuations. The alternative solution recommended in the prior response also reduces basis risk and improves the consistency between asset and liability valuations through company specific discount rates. In addition, the alternative solution does not create inappropriate incentives for companies to increase their exposure to riskier assets. For example, riskier investment strategies will lead to higher risk charges being deducted from the gross discount rates.	
Property Casualty Insurers Association of America (PCI)	USA	No	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a	

			response by PCI should not be taken one way or the other with respect to the subject of the question.	

Q37 Section 5.1 Are there any other comments on the MAV discounting methodology, taking into account, for example, the data collection on additional methods for the base yield curve adjustments, which the IAIS should consider in the development of ICS Version 2.0? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
CLHIA	Canada	No	Yes	Arbitrary factors should be avoided and market data should form the basis for calculation inputs. As one potential alternative, the market observed yield for the liquid segment, {Swaps – 10bps} could be replaced with {Swaps – long term average swap spread specific to currency/term}.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	No	Insurance Europe supports a methodology to derive the discount rate which avoids the introduction of artificial volatility and which has mechanisms in place to provide sufficient time to transition in any changes in parameters which could have a significant impact on the outcomes (eg LTFR, LOT).

Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	The approach suggested in Q36 requires the collection of asset and liability cash flows for each individual maturity. It further requires an explicit probability of default (PD) on a non-ambiguous scale (e.g. rating class mapped to PD). For reasons of comparability, the PD mapping should be defined centrally.
Global Federation of Insurance Associations	Global	No	Yes	GFIA is concerned about proposals to apply a discount rate to short-duration liabilities that adds complexity, considerable expense, and would prove meaningless after the application of a P-MOCE.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	We would apprecite it if the IAIS could consider the OAG method that adjusts a guardrail appropriately. As we answered to Q22, the introduction of bucket approach may bring a result, such as destruction of the level playing field by a cliff effect, difficulty of stable risk management of IAIG. In addition, as for the calculation of risk charge, the IAIS instructs IAIGs should reflect risks arise from each company portfolio on the basis of real world. So, also as for the calculation of available capital, we believe the IAIS should allow IAIGs to take into consideration their own average expected profit of each company portfolio. If it were not allowed, the ICS rule would be an unbalanced regulation. We deeply understand the necessity of appropriate guardrails which prevent IAIGs from accelerating their investment in risk assets more due to overshooting. If the IAIS would believe the guardrail of OAG which industries propose would not work well, we would like to suggest that the IAIS should adjust the guardrail of OAG appropriately instead of adopting the bucket approach. Subject to the setting of an appropriate guardrail, it is necessary for the prospective spread by the investment in stocks and in foreign currency bond to be reflected adequately and fairly. For example, we consider stocks can be treated as same as BBB corporate bonds. Also, as for super long-term reinvestment premise, we believe adjusting appropriately will be a key solution.
General Insurance Association of Japan	Japan	No	No	

The Life Insurance Association of Japan	Japan	No	Yes	• Regarding the bucket approach, the LIAJ concerns that the cliff effect occurs between buckets. A significant difference in discount rates due to a slight difference in product features would undermine the level of playing field. The cliff effect is less likely to occur through the OAG because the mismatch situation is continuously reflected in the OAG. Along with the Three-Bucket Approach, improvements in the OAG should be targeted. • If the risk amount is calculated on a real world basis and reflects the risk arising from individual portfolios, the average expected return on the individual portfolios expected in the real world should be taken into account with respect to available capitals. Appropriate guardrails are necessary to prevent the insurer from accelerating investments in risky assets, and in this respect, if the current OAG guardrails are not working, they should be modified. The spread expected from investments in equities and foreign-currency bonds should be appropriately reflected, given the development of appropriately modified guardrails. For example, equities may be considered as BBB-rated bonds.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
American Council of Life Insurers	Office of General Counsel	No	Yes	ACLI believes further substantive development and testing are necessary to ensure that the 3 bucket approach is fit for implementation into ICS 2.0. ACLI's primary concerns about the discounting approach involve bucketing (as noted in our previous answers), insufficient alignment with actual ALM practices, and excessive conservatism. ** ASSET SPREADS, REFERENCE PORTFOLIOS, AND LONG-TERM FORWARD RATES SHOULD BE MORE SPECIFIC TO ALM PRACTICES AND GEOGRAPHICAL PROFILES OF INSURERS.** a) WAMP asset spreads and reference portfolio assumptions should be more specific to the different ALM risk profiles of insurers. For example, separate WAMP and reference portfolio assumptions could be developed for life vs. non-life insurers, insurers with a short-term liability risk profile vs. insurers with a long-term liability risk profile etc., and for insurers in different jurisdictions.

				b) The expected real interest rate used to determine the LTFR is based on the average of observed real rates of return across all developed markets. This level of aggregation is too broad, and relative to assumptions currently used in local GAAP and capital requirements, results in segment 3 of the base yield curve being materially too low in some jurisdictions e.g. North America, and too high in others. c) The use of non-geography specific risk corrections, and broad corporate spread market groupings results in unrealistic adjusted spreads for certain geographies. In addition, these adjusted spreads are subsequently added to segment 1 of the base yield curve, which has been derived using a different market grouping, creating more geography/market level inconsistencies. We believe the appropriate approach is to use a currency specific term structure of default. d) Real rates of returns, corporate spreads and risk adjustments are market specific, and these assumptions should be determined at the market-level. We recommend that these assumptions are determined based on the market grouping used to determine segment 1 of the base yield curve, which would ensure internal consistency in the overall MAV discount rate. **ELEMENTS OF THE MAV 3 BUCKET APPROACH EMBED AN INAPPROPRIATE LEVEL OF CONSERVATISM. ** There are several elements in the MAV 3-bucket approach that result in an inappropriate level of embedded conservatism in outcomes. These include: - No recognition for equity (and equivalent) assets that are widely used in practice to back long-term liabilities. This topic has been widely discussed in other forums and these discussions will not be repeated here, but in the context of the MAV calculation, excluding these assets results in this business being treated as 'duration mismatched'. Consequently, these blocks are valued under the general bucket representative portfolio approach, where clearly the assumptions used for the general bucket approach are not actually 'representative' of the types of assets backing long term business.

				- The WAMP asset spreads appear to have been determined without reference to a term structure, and consequently appear to be very conservative relative to the spreads earned in practice on assets backing liabilities. This is particularly noticeable on long term business where long dated (eligible) assets backing this business would typically earn an illiquidity premium. We believe the appropriate approach is to have a term structure of spreads. - The use of application ratios represents an arbitrary haircut to asset spreads. As noted in previous discussions, the rationale of the use of applications ratios is in general debatable, and further it seems unlikely that the application ratios of 100%/90%/80% tested in the 2018 field test have been calibrated in any meaningful form. - The long term spread added to LTFR fails to appropriately reflect the spreads insurers make on its long-term investment portfolio. The current 10bps placeholder is overly conservative and is inconsistent with the overwhelming empirical evidence supporting higher long-term spreads. Substantive further development is necessary before the MAV 3-bucket approach should be considered as fit for purpose. A key part of this development should be improving the linkage between the liability discount rate and the yield on the assets backing those liabilities. A one size fits all approach to determining the MAV discount rate will never be capable of appropriately differentiating between the different IAIG ALM risk profiles that exist globally. In this respect, we note that the spread on own assets is a key feature of the “own assets with guardrails” (OAG) methodology, and we recommend that the OAG methodology should be used to ‘inform’ a more appropriate calibration of the middle and general bucket assumptions. For example, the OAG methodology could be used to provide a benchmark against which the impact of including, or not including, equity assets in the middle bucket could be measured. Similarly, the impact of applying application ratios, using own spreads vs. WAMP spreads etc. could be also be measured.
Legal & General	UK	No	Yes	We believe that the Own Assets with Guardrails (OAG) approach should be retained as supplementary reporting over the monitoring period, to allow the impact of any non-economic elements of the Three Bucket approach to be assessed over time. This would be particularly

				important if internal ratings continue to be excluded from the Three Bucket approach. We do not recommend that the Revised Blended method is retained for the monitoring period. The additional insight generated by this basis does not appear to justify the additional effort required to calculate an additional set of figures.
National Association of Mutual Insurance Companies	United States	No	Yes	See NAMIC response to question 7 and 11.
Prudential Financial, Inc.	United States of America	No	Yes	We believe that the data used by IAIS members to develop the MAV credit spread adjustments applied to the risk free curve should be transparent and documented. The sources should be well understood by and readily available to IAIS members, supervisors and the industry. This includes: + Spread data (which should reflect a spread term structure) + Portfolio mix data (which should reflect sufficient asset granularity) + Data underlying risk corrections (which should be set by currency)
MetLife, Inc	USA	No	Yes	Please see our response to Q 38 below.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.

Q38 Section 5.1 Are there any further comments on MAV that the IAIS should consider in the development of ICS Version 2.0? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	It is fundamental to a sound required capital design that assets and liabilities are valued consistently when measuring risk. To do this, it is necessary that the rate used to discount liabilities is aligned with the actual ALM practice of the company. In its current form, MAV has an emphasis on cash flow matching that is not consistent with actual ALM practice in the industry, and defaults to a general bucket approach that has no direct link to the actual assets held by the company.
CLHIA	Canada	No	Yes	We suggest as much alignment with the national accounting regime of the IAIG's head office as possible, notably including the discount rate. Not only will this reduce operational burdens, but it will better facilitate reconciliations of general purpose financial reporting results with ICS results. At least in the near term, robust comparability of outcomes will be challenging given there is a plethora of combinations of accounting regimes with both the MAV and GAAP+ approaches. In the case of those head office jurisdictions that adopt IFRS17, consideration should be given to the MAV aligning as much as possible with IFRS17. However, this should not in of itself necessarily provide a further rationale for expanded use of GAAP+. The CLHIA's view is that the whole concept of application ratios needs further analysis. In effect, the application ratio is an arbitrary reduction in spreads used to calculate the liability discount rate that subsequently cause the asset and liability sides of the balance sheet to move inconsistently. The IAIS should be able to support the derivation of the percentages. We question whether the 90% and 80% application ratios have been calibrated in a sufficiently rigorous manner. Arbitrariness to these percentages will result in "false precision" of ICS ratios.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	Sound discounting methodologies should be based on realistic, and thus in particular not too optimistic, assumptions and criteria. Therefore, EIOPA would advise not to relax the three bucket approach criteria and application ratios any further than what is currently proposed in the consultation and 2018 field testing documents. Moreover, we also want to emphasize that we do not support any adjustments above the base yield curve at the LTFR maturity and fully agree with all the arguments presented in paragraph 125 of the Consultation Document.
Allianz	Germany	No	Yes	We support the comments provided by Insurance Europe, the German Insurance Association and the Geneva Association/International Institute of Finance. In addition to those comments we would like to expand on some specific points: The MAV approach must take into account the long-term nature of the life insurance business model and avoid injection of artificial, non-economic volatility. The risk that the valuation of assets and liabilities responds inconsistently to credit spread shocks should be minimized. Discounting should therefore reflect insurers' own asset valuations, as we invest in these assets to cover cash flows from our insurance liabilities without being exposed to forced asset sales. Unwarranted volatility related to short term credit spread movements can be mitigated by a discounting approach that is a function of the asset portfolio held. While some effort has been made to reflect the more limited impact of short-term credit spread movements in the adjustments to the discount curve, these are not sufficient. The current proposals for liability valuation are not conducive to reflecting the relevant remaining economic risks when taking into account the asset-liability management approach by insurers to their long-term business. When investing to cover long-term stable liabilities insurers can choose long-term assets to satisfy liability cash flows from contractual asset cash flows and are not subject to forced asset sales, even in times of turbulent asset markets. The ability to hold assets to maturity is independent of the degree of cash flow match of the asset/liability portfolio. Where assets can be held to maturity insurers are not subject to asset price movements (the only risk is actual default in payment of interest and principal when due) and the corresponding liability valuation should therefore include the default-risk-corrected spread

				of the supporting assets (as a shift of the yield curve up to the duration of portfolio assets). While appropriate eligibility criteria should apply to identify illiquid liabilities (such as a liability liquidity stress test), current criteria for the ICS spread adjustment test only for the degree of cash flow match, which fails to recognize the ability to hold assets to maturity and unnecessarily limits application of asset-derived liability valuation adjustments (for both the top and middle bucket). Appropriate eligibility criteria should be derived to test the ability to hold assets to maturity as a function of the liability portfolio characteristics. Eligible portfolios should be valued based on the risk-corrected spreads of underlying assets to fully reflect and honour ALM strategies and remaining risks. Where an approach based on weighted reference portfolios is used to derive the spread adjustment (such as the middle bucket), the reference portfolios should at a minimum be determined along the dimensions of asset class, rating and duration, in order to honour liability-consistent investment strategies. This would align regulatory incentives with economic reality, remove unwarranted disincentives implied by current approaches and effectively eliminate regulatory driven pro-cyclical investment decisions.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	We emphasize that we do not support any adjustments above the base yield curve at the LTFR maturity and fully agree with all the arguments presented paragraph 125 of the Consultation Document.
Global Federation of Insurance Associations	Global	No	Yes	See response to Q15
International Actuarial Association	International	No	Yes	There needs to be a consistent consideration, measurement and discounting of the risks for financial vs. insurance risks and for life and non-life risks (recognizing that consistent treatment of risks may lead to what might appear to be inconsistent approaches that in fact validly reflect the actual characteristics of those risks). Pragmatic options may draw on the following insights: (1) by altering input assumptions it is possible to achieve a theoretical equivalence between a “top down” and a “bottom up” approach to valuation (here interpreted as risk free versus real world), (2) it has been observed that stress testing of real-world valuations can lead to similar insights into extreme risks that are also revealed through risk-

				neutral pricing. This means that a diversity of methods might be capable of being used that will result in reasonably comparable technical provisions and MOCE's (whether P-MOCE or C-MOCE or based on real-world or risk-free valuation processes), as long as they are built on internally consistent discount rates and risk measures of the assets and liabilities.
General Insurance Association of Japan	Japan	No	No	
The Life Insurance Association of Japan	Japan	No	Yes	• Contract boundaries should be determined on the basis of economic reality, not legal capacity. If the boundary is determined by emphasising the legal status of the contract and the legal enforcement capability of the insurer and neglecting the actual status of the insurer´s business and economic rationality, the insurance liabilities would be assessed based on the assumption that it is not feasible. Insurance liabilities assessed in this way do not reasonably represent the economic value. • Under the current ICS, the boundaries of group insurance contracts in Japan are not connected. However, as a matter of course, internal risk management is conducted by taking into consideration the continuation rate of contracts and the probability of renewal. The current conservative treatment results in a significant deviation from the actual risk management and may hinder the operation of the group insurance business in Japan.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
American Council of Life Insurers	Office of General Counsel	No	Yes	Substantive further development is necessary before the MAV 3-bucket approach should be considered as fit for purpose. A key part of this development should be improving the linkage between the liability discount rate and the yield on the assets backing those liabilities. A one size fits all approach to determining the MAV discount rate will never be capable of appropriately differentiating between the different IAIG ALM risk profiles that exist globally. In this respect, we note that the spread on own assets is a key feature of the "own assets with guardrails" (OAG) methodology, and we recommend that the OAG methodology should be used to 'inform' a more appropriate calibration of the middle and general bucket assumptions.

				For example, the OAG methodology could be used to provide a benchmark against which the impact of including, or not including, equity assets in the middle bucket could be measured. Similarly, the impact of applying application ratios, using own spreads vs. WAMP spreads etc. could be also be measured.
Legal & General	UK	No	No	Our feedback has been adequately captured in our responses to the other questions in this section.
Association of British Insurers	United Kingdom	No	Yes	Of the valuation approaches tested so far, the Own Assets with Guardrails (OAG) approach, including the recognition of internal ratings advocated by many in the industry, is the most appropriate for long-term life business. The proposed OAG approach also has the advantage that it would provide an appropriate framework to facilitate investment in equity infrastructure finance projects as well as debt. Adoption of the OAG as the basis for valuation within the Top Bucket would therefore help ensure insurers play their natural role as investors in the real economy, including providing capital for infrastructure. See also our response to Q15.
National Association of Mutual Insurance Companies	United States	No	Yes	The ICS is not yet fit for purpose. Significant additional work is needed to achieve an appropriate global capital standard and it may be completely unachievable. The valuation method, appropriate risks and their factors should be determined by the local jurisdictional supervisor. NAMIC disagrees with the mandate of a standard method, the 99.5% VaR calibration level and the IAIS dictating the factors to be used in the formula. Jurisdictional flexibility is the appropriate way to capture these risks with mutual recognition and shared understanding of the jurisdictional approach at supervisory colleges. See also NAMIC response to question 7 and 11.
RAA	United States and many other jurisdicitons	No	Yes	See response to Q15.

American Academy of Actuaries	United States of America	No	Yes	We believe that the use of market values can be misleading to the extent that changes in market values do not represent changes in expected cash flows. For example, from a property/casualty perspective, the change in spreads over risk-free have no impact on cash flows to the extent sales of bond investments are not expected nor required under the stress scenarios envisioned. Hence the change in market values due to changes in spreads for such scenarios are spurious noise, not representing a changed solvency position. Market shocks that are not expected to result in cash flow shocks or other changes to cash flows should not be reflected in the capital standard. The situation is different, however, for life insurance liabilities, which may have reinvestment risk associated with long duration liability cash flows. Cash flows may also vary with changes in spreads for products whose liabilities are derived from asset performance (e.g. Universal Life (UL), participating whole life). The key challenge for life liabilities is finding an appropriate balance between comparability and allowing insurers to take credit for their individual product management strategies.
Prudential Financial, Inc.	United States of America	No	No	
Liberty Mutual Insurance Group	USA	No	Yes	As previously noted, the MAV is a flawed component of a poorly designed ICS. It should be abandoned and replaced with some more acceptable valuation system such as the Own Assets with Guardrails approach some IAIGs have proposed.
MetLife, Inc	USA	No	Yes	It is imperative that the discounting methodology agreed for the ICS is consistent with economic reality and will actually serve its purpose and align with insurers' internal disciplines for asset and liability management (ALM). We recognize that the IAIS is aware of the need to mitigate potential excessive volatility in capital resources. However, in its current design, the Three-Bucket Approach fails to sufficiently achieve such mitigation. Volatility and pro-cyclical effects are not properly addressed.
Northwestern Mutual	USA	No	Yes	Yes, we commend the IAIS for continuing to recognize the concept embodied in paragraph 94 of the Instructions for the May 2018 Quantitative Data Collection Exercise of the Field Testing Project: that, for participating contracts, where the IAIS stipulates a discount rate curve as part

				of the ICS, the investment earnings and liability cash flow projections (including participating dividends) must reflect the economics implied by the stipulated discount rate curve. This concept is of paramount importance to arrive at an appropriate MAV valuation for participating contracts.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	PCI´s yes or no response was simply required in order to open the text box and file comments. We believe this question to be best addressed by field test volunteers who have the ability to do so with the benefit of actual data for support and context. The absence of a response by PCI should not be taken one way or the other with respect to the subject of the question.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	The partition of the LTFR into one rate for advanced and another for developing economies is somewhat arbitrary. The IAIS should consider alternative splits. An example of a possible split could be a three level split between hard or reserve currencies such as US Dollar, Euro and Yen, other currencies of advanced economies and those of developing economies

End of Section 5.1