4.3 Margin over current estimate (MOCE)

Q48

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

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
EIOPA	EIOPA	IAIS Member	No	No	EIOPA holds the view that MOCE should be consistently calculated using a single methodology which is not linked to the Valuation basis adopted by a certain jurisdiction or IAIG under the ICS.
BaFin	Germany	IAIS Member	No	No	
National Association of Insurance Commissioners	USA	IAIS Member	No	No	Given potential changes to both GAAP Plus and MAV, this is difficult to answer definitively, but our current understanding is that there should not be a difference.
ABIR Association of Bermuda Insurers & Reinsurers	BERMUDA	Other	No	Yes	It is fundamentally important that the choice of MOCE approach should be tied to the valuation basis for Non-Life insurers.

					Broadly speaking: -Prudence MOCE applied to MAV valuation or GAAP-Plus (all jurisdictions) arrives at a level similar to US GAAP for Non-Life insurance liabilities, with full Unearned Premium Reserve and undiscounted loss reserves. -Cost of Capital MOCE applied to MAV valuation or GAAP-Plus for European IFRS filers (who are instructed to use Solvency II valuation basis) is conceptually similar to Solvency II approach. -However applying Cost of Capital MOCE to GAAP-Plus for a US GAAP filer effectively results in two risk margins: the full amount of unearned premium reserve and undiscounted loss reserves are held under US GAAP basis, PLUS an additional Cost of Capital MOCE is held on top. We believe the Prudence MOCE should apply to the GAAP-Plus valuation basis only, and the Cost of Capital MOCE should apply to MAV only.
Canadian Institute of Actuaries	Canada	Other	No	No	
CLHIA	Canada	Other	No	No	In theory no, but this premise should be tested in practice
EIOPA Insurance & Reinsurance Stakeholder Group	EU	Other	No	Yes	• The high level argumentation regarding the balance sheet valuation is not in place. It is unclear what MOCE exactly reflects. Is it a prudency margin, a transfer value? • The principles and the rationale underlying the MOCE concept need to be consistent with the overall structure of the ICS framework. • MOCE should not become an additional part of liabilities but remain as a calculated element contained within the solvency capital. Creating an addition to the liabilities will complicate the framework, may be

					unnecessarily conservative and introduce another potentially volatile element. This is the role of the solvency capital and to do this would be double counting and interfere with the solvency calibration. • The COC MOCE approach is based on stresses that are not reflecting the risk in the company (no use of internal model), so the MOCE then cannot mirror the add-on to obtain a transfer value. Nor does the CoC MOCE represent the minimum return expected by investors on capital to support the business where the capital underlying the calculation does not reflect the company's risks.
AMICE, Association of Mutuals and CooperativesinEurope/ICMIF,International Cooperative and Mutual Insurance Federation.	Europe	Other	No	No	
Institut des Actuaires	France	Other	No	Yes	Should ensure no double counting of any prudence margins
AIA Group	Hong Kong	Other	No	No	
International Actuarial Association	International	Other	No	Yes	The important question here is how the CC MOCE is to be coordinated with the other elements of the ICS. Based on those considerations there may a need for a different calculation and/or integration of the calculation with other elements such as taxes (and the accompanying classification as a reserve or a capital add on), discount rates, diversification decisions and the priority/focus on cash needs for a runoff situation vs. the need to recapitalize to stay a going concern. We elaborate more on this in Question 66.
Great Eastern Holdings Ltd	Singapore	Other	No	No	

Swiss Association of Actuaries	Switzerland	Other	No	Yes	In fact the answer is a qualified ‘no’, but ´no´ does not allow for qualifications. The CC MOCE is a requirement for a market consistent approach, but it is to us not clear what a methodologically consistent MOCE is for GAAP Plus.
American International Group (AIG)	U.S.	Other	No	No	
National Association of Mutual Insurance Companies	United States	Other	No	Yes	We suggest that MOCE be eliminated altogether. For non-life contracts, we assert that the MOCE, especially the derivation of MOCE included in the P-MOCE proposal, simply adds back the conservatism included in non-discounted reserves and should be eliminated and non-life reserves left undiscounted to address this issue altogether in a less complicated manner. The intention of the consultation is not clear as there are discussions about different approaches taken during the field testing in various years. See response to question 47 for more details about the concerns. NAMIC suggests a clarification that the GAAP+ approach will include no discounting requirements for non-life reserves, and, therefore, no MOCE as the necessary conservatism is addressed by the decision not to discount reserves.
RAA	United States and many other jurisdicitons	Other	No	Yes	For non-life business, choice of MOCE must correspond to the valuation basis used. The measurement of MOCE cannot be separated from the liability valuation and must be consistent with the selection of a MAV or book value (US GAAP) basis of presentation. The GAAP Plus P-MOCE should be zero given that the purpose of P-MOCE is to bring discounted reserves up to undiscounted and to bring losses on UPR back to full UPR. The MAV P-MOCE will be non-zero as it is necessary to bring the discounted valuation of reserves up to undiscounted.

					Applying a CoC MOCE to GAAP Plus for a US GAAP filer would effectively amount to two risk margins and would be incorrect.
American Academy of Actuaries	United States of America	Other	No	No	No. The issues with MOCE are not a function of the valuation approaches; rather the MOCE is problematic due to the overall excessive, redundant reflection of risk in the ICS framework. The MOCE double-counts risk in the ICS given that it is not deducted from capital requirements, which also represent risk in the liabilities over the life of liabilities.
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
MassMutual Financial Group	USA	Other	No	No	

Property Casualty Insurers Association of America (PCI)	USA	Other	No	Yes	For IAIGs headquartered in jurisdictions whose GAAP requires undiscounted claim liabilities, the P-MOCE should not apply to those liabilities. The amount of P-MOCE is effectively included in undiscounted liabilities, and requiring a separate calculation would be double-counting.

Q49

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

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	No	
EIOPA	EIOPA	IAIS Member	No	No	We do not have data on actual market transactions. Please note that where such data are available the difference between the transaction price and the MAV current estimate may in particular be influenced by differences in the calculation of current estimates.
BaFin	Germany	IAIS Member	No	No	
Financial Supervisory Service	Korea	IAIS Member	No	No	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	No	

Canadian Institute of Actuaries	Canada	Other	No	No	
CLHIA	Canada	Other	No	No	There are not sufficient numbers of transactions to make this comparison.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	The pricing of China´s insurance business transactions are more dependent on other factors (such as distribution channels, market share, net assets and value of new business, etc.), and so it is difficult to use the transaction information the basis for CoC assumption.
AMICE, Association of Mutuals and CooperativesinEurope/ICMIF,International Cooperative and Mutual Insurance Federation.	Europe	Other	No	Yes	We observe and are aware of valuations in mergers and acquisitions. However, those observations cannot be used in the ICS context as they are always very specific and dependent on the global specific one-off interests of the parties in the deal. Franchise and hedgeable risks are also taken into account.
Actuarial Association of Europe	European Union	Other	No	No	
Allianz	Germany	Other	No	No	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	Prices of Retrocession instruments (CatBonds, Sidecars) can be used to estimate the market value.
German Association of Actuaries (DAV)	Germany	Other	No	No	
Munich Re	Germany	Other	No	Yes	Prices of Retrocession instruments (CatBonds, Sidecars) can be used to estimate the market value.

AIA Group	Hong Kong	Other	No	Yes	In our experience, liabilities are transferred based on negotiations between the parties using an embedded value methodology that incorporates a cost of capital. We are unable to provide data. We do not believe that MOCE are a necessary component of the liability, however. The cost of capital is an additional amount, over and above the liability that a buyer demands be transferred.
International Actuarial Association	International	Other	No	No	
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	・It is very partially Yes. In our group, we have experience of acquisitions of closed block. But it is not general to amplify those liabilities in the course of valuation of the whole insurance liabilities of our group.
General Insurance Association of Japan	Japan	Other	No	No	
The Life Insurance Association of Japan	Japan	Other	No	No	
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	Yes	In fact the answer is a qualified ‘no’, but ´no´ does not allow for qualifications. The CC MOCE is not based on margins observed in actual market transactions. Since insurance liabilities are not traded in a deep, liquid and public market, observed margins are of very limited value for the calibration of the MOCE. Moreover observation are distorted by the fact that many insurers run

					significant amount of market risk in the portfolios replicating their liabilities. Thus the observed rates are not useful since they contain a compensation for avoidable financial market risk.
Swiss Re	Switzerland	Other	No	Yes	Swiss Re uses an internal economic framework for steering, planning and performance reporting. A comparison can be made with the MAV approach on an aggregated level, but not at transaction level.
Aegon NV	The Netherlands	Other	No	Yes	Aegon suggests that this line of research is unlikely to be fruitful. In actual market transactions, it is typically not possible to separately identify the MOCE on current business in force. In actual market transactions, buyers and sellers typically create separate appraisals, with the final price negotiated. Within the separate appraisals, there are differences in best estimate assumptions and risk margin techniques. Buyers and sellers will also have different expense levels and diversification impacts. Both sides would typically create current estimates using “economic” contract boundaries, but this is at odds with the ICS as currently proposed. Finally, a significant component of many transactions is a value for future new business production. Although future new business is typically a distinct part of the appraisal process, its impact on the final negotiated price is not necessarily explicit. Therefore we think that the MOCE is likely to remain, at best, a complex, theoretical exercise.
American International Group (AIG)	U.S.	Other	No	No	Not as defined in the MAV
RAA	United States and many other jurisdicitons	Other	No	Yes	In limited situations, the prices of certain capital instruments such as catastrophe bonds or sidecars can be used to estimate the value of market transactions of some insurance liabilities.

American Academy of Actuaries	United States of America	Other	No	Yes	Generally, liabilities will trade above current estimates. However, the current estimates themselves reflect appropriate valuation, including an appropriately representative discount curve. Furthermore, the presence of a margin in market transactions does not bear on the issues with MOCE in the ICS with respect to double-counting of risk. The MOCE double-counts risk in the ICS in that it represents additional loss absorption capacity not recognized as such in available capital, and it represents a provision for risk that is already covered by capital requirements.
Prudential Financial, Inc.	United States of America	Other	No	Yes	We do not rely on market transactions such as reinsurance deals or M&A to inform what the values of our liabilities should be, which is an actual consideration when making a FAS 157/159 election. We caution against reliance on insurance market transactions as PGAAP assumptions have been known to be considerably off in both directions. In any case, the presence of a margin in market transactions does not bear on the issues with MOCE in the ICS with respect to double-counting of risk. The MOCE double-counts risk in the ICS in that it represents additional loss absorption capacity not recognized as such in available capital, and it represents a provision for risk which is already covered by capital requirements.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not

					support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
MassMutual Financial Group	USA	Other	No	No	

Q50

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

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	Fixed? If "yes", how should it be determined?	As the cost of capital is not market observable, we support a simpler and stable assumption for easier implementation.
EIOPA	EIOPA	IAIS Member	No	Fixed? If "yes", how should it be determined?	The parameter shall be equal to the additional rate, above the risk-free interest rate, that an insurer would incur holding an amount of capital resources equal to the capital requirement necessary to support the insurance obligations over their lifetime. The parameter can be derived from shareholder return models and market prices for capital. The parameter should be fixed to avoid procyclical effects.
BaFin	Germany	IAIS Member	No	Fixed? If "yes", how should it be determined?	We consider that a fixed rate should be set to avoid pro-cyclical effects in the valuation of technical provisions. The rate shall represent the additional rate that an investor would require to take on the risks related to the insurance obligations.
Financial Supervisory Service	Korea	IAIS Member	No	Fixed? If "yes", how should it be determined?	It shall be determined as the difference between the shareholders's required return and the risk-free rate.

Ageas	Belgium	Other	No	Fixed? If "yes", how should it be determined?	We suggest to align with SII methodology. However this should be revised on a periodical basis.
ABIR Association of Bermuda Insurers & Reinsurers	BERMUDA	Other	No	Fixed? If "yes", how should it be determined?	We support the use of a cost of capital rate that is stable over long cycles and is changed infrequently based on a lead time for communication and a cost benefit for change. A variable rate, or otherwise one that is updated frequently, would cause additional volatility in results and introduce practical difficulties in planning and pricing activities.
Canadian Institute of Actuaries	Canada	Other	No	Fixed? If "yes", how should it be determined?	Yes, it would allow for consistency and comparability between entities, and avoid procyclicality. Based on observed transactions, 5% seems reasonable.
CLHIA	Canada	Other	No	Fixed? If "yes", how should it be determined?	A fixed rate will result in higher comparability between entities and mitigate pro-cyclicality.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Fixed? If "yes", how should it be determined?	We have no comment due to lack of sufficient relevant transactions data.
AMICE, Association of Mutuals and CooperativesinEurope/ICMIF,International Cooperative and Mutual Insurance Federation.	Europe	Other	No	Fixed? If "yes", how should it be determined?	

Insurance Europe	Europe	Other	No	Linked to another economic variable in order, in particular, to reflect different economic environments? If "yes", which economic variable should be used (eg interest rate curve, spread level…)?	The cost of capital rate should be a function of interest rates, to capture the sensitivity of the overall balance sheet to market interest rates.
Actuarial Association of Europe	European Union	Other	No	Fixed? If "yes", how should it be determined?	The methodology should provide for reasonable stability to avoid unwarranted impacts on insurance pricing. Therefore the CoC rate should be periodically reviewed by an expert group including participants from regulators, supervisors, actuarial associations and industry.
Institut des Actuaires	France	Other	No	Fixed? If "yes", how should it be determined?	We recommend an approach consistent with S2, a WACC based approach
German Association of Actuaries (DAV)	Germany	Other	No	Fixed? If "yes", how should it be determined?	While the methodology should provide for reasonable stability to avoid unwarranted impacts on insurance pricing, the CoC rate should be periodically reviewed by an expert group including participants from regulators, supervisors, actuarial associations and industry.

Munich Re	Germany	Other	No	Fixed? If "yes", how should it be determined?	Similar to Solvency II.
AIA Group	Hong Kong	Other	No	Linked to another economic variable in order, in particular, to reflect different economic environments? If "yes", which economic variable should be used (eg interest rate curve, spread level…)?	We would favour a formula tied to the level of risk-free rates.
International Actuarial Association	International	Other	No	Fixed? If "yes", how should it be determined?	Feedback from our members familiar with CoC assumptions used in the sale of blocks of life/annuity business in Canada, Australia and Hong Kong indicates that the CoC assumption used in recent transactions is consistent with the ICS suggested use of 5%. The IAA notes that different CoC assumptions are also being used in various areas. Examples include (1) the valuation of P&C claim liabilities for purchase accounting, (2) goodwill impairment testing required under some versions of GAAP, (3) some sale/purchase evaluations performed in the U.S. While some of our members support the proposed 5%, indicative of the approximative aspect of this concept, the choice of a different cost of capital rate is certainly justifiable and reflected in actual practice.

IAIS

					The linked approach could potentially be used. It could be equal to the investment return expected by a shareholder minus the after tax long term bond rate. The problem with this approach is that it could lead to lack of consistency and comparability, and would bring volatility to the results (liability amount and hence the capital resources). Once the rate is chosen, while there is not a need to mirror/track market risks through a cycle (i.e. pegged to economic indices) it would be appropriate to reflect regime changes (such as post 2008) in resetting the CoC rate as the cost for insurance risk is more stable over time than is the cost of market risk.
Dai-ichi Life Holdings, Inc.	Japan	Other	No		Our opinion is as follows: "Fixed? If "yes", how should it be determined?" > No "Linked to another economic variable in order, in particular, to reflect different economic environments?" > Yes "Determined with reference to a minimum (hurdle) level that could be different from the average observed level?" > Yes "Based on a broad equity market or on insurance-specific measures? "

					> Yes ・Disagree with use of the same level of CoC because each company and jurisdiction has different CoC. ・In general, when insurers transfer their policies, it is natural for the insurers to select the buyers who offer the highest price. So, it is more reasonable for the insurers to consider the lower hurdle rate than to take the average hurdle rate.
General Insurance Association of Japan	Japan	Other	No	Fixed? If "yes", how should it be determined?	From the points of view of simplicity of calculation and comparability, the costs of capital should be fixed and common across IAIGs. We have no particular objection to the proposed level of 5%.
The Life Insurance Association of Japan	Japan	Other	No		o Fixed? If "yes", how should it be determined? ・ No. o Linked to another economic variable in order, in particular, to reflect different economic environments? If "yes", which economic variable should be used (eg interest rate curve, spread level...)? ・ Yes. ・ In the 2016 Field Testing Technical Specifications, the cost of capital was determined based on the observed historical risk premium in excess of the risk free rate. However, in determining the cost of capital, we believe it should be linked to other economic variables (e.g. interest rate curve and spread level) to reflect various economic conditions. ・ We believe stability should be ensured for the hurdle cost of capital parameter. Even when it needs amendment, proper transitional arrangements would be needed to prevent drastic

					changes. o Determined with reference to a minimum (hurdle) level that could be different from the average observed level? If "yes", please explain why and how this should be reflected. ・ Yes. o Based on a broad equity market or on insurance-specific measures? If "yes", please explain. ・ Yes. ・ As a reference to the suggestion by the CRO Forum, it needs to be noted that in our jurisdiction, there are many insurers that set the cost of capital at 2.5% (which is much lower than the cost of capital level currently proposed by the IAIS) for their internal management including the calculation of the embedded value. In this context, we do not agree with the IAIS´s idea of setting the cost of capital at a fixed level regardless of jurisdiction or firm. The level of cost for raising capital in each jurisdiction and firm should be reflected. Given that our own fulfilment value is incorporated in the assumptions for valuation of the CC MOCE (as set out in paragraph 197 of the CD), the cost of capital level that is consistent with the firm´s capital raising cost would be reasonable. Considering these factors mentioned above, 5% cost of capital currently being suggested by the IAIS is overly conservative. ・ Additionally, adopting lower hurdle rates rather than the average level of hurdle rates would be more reasonable because sellers would generally choose the buyers to whom they can sell out at the most advantageous price when transferring insurance policies.
Great Eastern Holdings Ltd	Singapore	Other	No	Linked to another economic variable in order,	Interest rate curve

				in particular, to reflect different economic environments? If "yes", which economic variable should be used (eg interest rate curve, spread level…)?	
Swiss Association of Actuaries	Switzerland	Other	No	Linked to another economic variable in order, in particular, to reflect different economic environments? If "yes", which economic variable should be used (eg interest rate curve, spread level…)?	It should be linked to the risk-free yield, the tax rate and the loss carry forward period. Most relevant is the sensitivity of the CoC rate to the risk-free yield rate, where the CoC rate is – roughly – proportional to the risk-free rate. In addition, in a financial stress situation, the CoC ratio is much higher for those companies that take significant market risk, which should be reflected in the capital requirement (since the capital requirement is a function of the change of available capital that depends also on the change of the MOCE).
Swiss Re	Switzerland	Other	No	Fixed? If "yes", how should it be determined?	A stable parameter is desirable from a reporting perspective

American International Group (AIG)	U.S.	Other	No	Fixed? If "yes", how should it be determined?	Yes; the current 5% is reasonable based on historical observation and has the additional virtues of simplicity and tractability. Using a market/economic linked variable could create unnecessary noise. In saying 'No' to "Linked to another economic variable in order, in particular, to reflect different economic environments?" the following explanation is provided. One school of thought is that the cost of capital parameter could be based on the investment return expected by a shareholder minus the after-tax long term risk free rate. However, a fundamental problem with this approach is that it could undermine consistency and comparability, and would introduce excessive volatility in the results (i.e., the liability amount and, in turn, the capital resources).
Bupa	UK	Other	No	Fixed? If "yes", how should it be determined?	It should be based on the observed historical risk premium
MetLife	United States	Other	No	Fixed? If "yes", how should it be determined?	Without prejudice to our response to Q.66 below that we do not believe that a MOCE should be incorporated in the ICS, the cost of capital should be a fixed percentage that represents the return over risk free that a market participant would require to purchase the block.
RAA	United States and many other jurisdicitons	Other	No	Fixed? If "yes", how should it be determined?	We prefer a constant rate that is stable over long cycles. A variable rate would cause additional volatility in results and introduce practical difficulties.

Prudential Financial, Inc.	United States of America	Other	No	Based on a broad equity market or on insurance-specific measures? If "yes", please explain	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, a Weighted Average Cost of Capital (WACC) approach would be appropriate, where our cost of capital would be expressed as the return over risk-free rates required by our stakeholders. This measure would be determined at the firm-level, geographic region, and/or industry level to determine the appropriate cost of capital needed to hypothetically transfer our liabilities upon regulatory receivership or resolution, and the MOCE should be recognized as loss absorbing.
MassMutual Financial Group	USA	Other	No	Fixed? If "yes", how should it be determined?	As a simplification, making the parameter the same for all companies and constant over its term structure is not unreasonable. However, a more accurate approach would have the cost of capital vary based on the rating level of the insurer (e.g. AAA to AA- is one value, while A+ to A- is another, and BBB+ to BBB- is still another, and

Q51

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

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	No	The following risks should be included: • underwriting risk with respect to the transferred business, • where it is material, the residual market risk, other than interest rate risk, that remains when the assets are selected in such a way that they minimise the capital requirement for market risk, • credit risk with respect to exposures which are closely related to the insurance and reinsurance obligations, • operational risk
BaFin	Germany	IAIS Member	No	No	We consider that apart from the underwriting risk that is connected to the insurance obligations being transferred also the operational risk, as well as the non-hedgeable market risks should be captured (in case material which remains where assets are selected such that they minimize the capital requirement for market risk).

Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	No	Excluding all market risk essentially means assuming that there is no market risk in the insurance liabilities that cannot be perfectly replicated by assets with reliable market prices. This can be an issue in particular with respect to interest rate risk, as the terms of (government) bonds in most currencies are shorter or at least considered to be shorter than the time to settlement of some insurance liabilities (as evidenced by the need to extrapolate the yield curve e.g. in the ICS).
Ageas	Belgium	Other	No	Yes	
Canadian Institute of Actuaries	Canada	Other	No	Yes	
CLHIA	Canada	Other	No	Yes	
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Institut des Actuaires	France	Other	No	Yes	
Allianz	Germany	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	

German Association of Actuaries (DAV)	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	Yes	
International Actuarial Association	International	Other	No	Yes	
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	
General Insurance Association of Japan	Japan	Other	No	No	While the Field Testing Technical Specifications provide for Catastrophe risk to be reflected in the projection of future capital requirements by 100%, it is reasonable to reflect the decrease in exposure as in the case of premium risk.
The Life Insurance Association of Japan	Japan	Other	No	Yes	
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	No	All non-hedgeable risks have to be considered in the projected capital requirements. This includes market risk (interest rate risk, spread risk, reinvestment risk and others) as well as credit risk and insurance risk. Some of the market and credit risks might be irrelevant for certain liabilities but not for others (e.g. for Variable Annuities).
Swiss Re	Switzerland	Other	No	Yes	

Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, the only risks included in MOCE should be non-hedgeable risks, which is the current design.
MassMutual Financial Group	USA	Other	No	No	MOCE is a margin associated with the calculation of reserves. In the U.S., this has been discussed in the context of principles-based reserves. It is a margin for uncertainty in the reserves where assumptions are not prescribed. Similar to ComFrame, it exists since the reserves are calculated using ´best estimate´ assumptions. In contrast to ComFrame, the PBR margin is added to the reserves/insurance liabilities, opposed to a reduction in the capital resources used to calculate a capital ratio. The current CoC MOCE includes Operational and Credit Risk (which do not factor into the calculation of reserves) and Catastrophe Risk (which is a tail event). We propose excluding these items. Operational Risk is referred to by the Academy Aggregate Margin Task Force as general business risk and is unrelated to the underlying insurance contracts - it is excluded from an aggregate margin approach. Catastrophe risk (at least the pandemic aspect which life companies include) is a tail risk and is beyond a severity that should be included in reserves.

Q52

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

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Ageas	Belgium	Other	No	Yes	
Canadian Institute of Actuaries	Canada	Other	No	No	It is not possible to fully assess at this point. We encourage further review and testing of this aspect as the ICS progresses.

CLHIA	Canada	Other	No	No	It is not possible to fully assess at this point. We encourage further review and testing of this aspect as the ICS progresses.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Institut des Actuaires	France	Other	No	No	See Q51 – exclusions of market and credit risk is consistent with S2.
AIA Group	Hong Kong	Other	No	No	Firstly, we think projection over the entire life of the liability may result in overly large MOCE. Secondly, we do not favour MOCE being included within the liability.
International Actuarial Association	International	Other	No	Yes	
General Insurance Association of Japan	Japan	Other	No	Yes	
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	No	The projection should be done by IAIGs, based on their specific liabilities and based on sound principles.
Swiss Re	Switzerland	Other	No	Yes	

National Association of Mutual Insurance Companies	United States	Other	No	No	We suggest that MOCE be eliminated altogether. For non-life contracts, we assert that the MOCE, especially the derivation of MOCE included in the P-MOCE proposal, simply adds back the conservatism included in non-discounted reserves and should be eliminated and non-life reserves left undiscounted to address this issue altogether in a less complicated manner. The intention of the consultation is not clear as there are discussions about different approaches taken during the field testing in various years. See response to question 47 for more details about the concerns. NAMIC suggests a clarification that the GAAP+ approach will include no discounting requirements for non-life reserves and therefore no MOCE as the necessary conservatism is addressed by the decision not to discount reserves.
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, we believe the run-off pattern should be aligned with the run-off of the underlying risk and not the cash outflows. Cash outflows are less indicative of changes in the company's risk profile, while changes in net amount at risk for each risk included in MOCE provide a better indicator of the residual risk that is projected to remain on the company's Balance Sheet. As mentioned in our reply to question 50, we believe further work around determining an appropriate cost of capital is also necessary. We also believe MOCE should be recognized as loss absorbing.
MassMutual Financial Group	USA	Other	No	Yes	

Q53

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

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Canadian Institute of Actuaries	Canada	Other	No	No	Simplicity of draft approaches is appealing, but it is operationally challenging to (i) project the runoff of insurance liabilities based on outgoing cash flows only and (ii) produce projection pattern by risk. We encourage further review and testing of this aspect as the ICS progresses.
CLHIA	Canada	Other	No	Yes	We encourage further review and testing of operational challenges to implement this

Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Actuarial Association of Europe	European Union	Other	No	No	In order to capture the portfolio characteristics the projection methodology should be left to IAIG (including documentation that can be reviewed by the group supervisor that supervises the IAIG according to ComFrame requirements).
Institut des Actuaires	France	Other	No	Yes	
Allianz	Germany	Other	No	No	The projection methodology should be left to companies in order to reflect their business better.
German Association of Actuaries (DAV)	Germany	Other	No	No	In order to capture the portfolio characteristics the projection methodology should be left to IAIG (including documentation that can be reviewed by the group supervisor that supervises the IAIG according to ComFrame requirements).
AIA Group	Hong Kong	Other	No	Yes	
International Actuarial Association	International	Other	No	Yes	
General Insurance Association of Japan	Japan	Other	No	No	While we support simplicity in the approach to project future capital requirements, it should be noted that run-off patterns of non-life insurance vary significantly according to region, UPP (unearned premium provision)/pre-claims or claims etc. With regard to UPP/pre-claims, there are long-term non-life contracts as well. IAIGs with material long-term non-life contracts should be allowed to consider duration of their contracts using firm-specific run-off patterns, as in the case of life contracts. This has significant impact in Japan, since fire policies as long as 36 years are written. In Japan, the amount of UPP/pre-claims for fire insurance is 3 times

					the amount of annual premium income (2014 industry total, GAAP-basis). The approach should be verified and adjusted taking into account the data collected during 2016 Field Testing. (Along with our comments for Q51, we are commenting from the view of appropriately valuing Non-life risk.)
The Life Insurance Association of Japan	Japan	Other	No	Yes	
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	No	The projection should be done by IAIGs, based on their specific liabilities and based on sound principles.
Swiss Re	Switzerland	Other	No	Yes	
Aegon NV	The Netherlands	Other	No	No	Based on field testing results, Aegon believes that the approach to develop a CoC MOCE produces an excessively prudent outcome. During its work to develop IFRS 19, the IASB determined that the theoretical purpose of a MOCE in a market-adjusted framework is to reflect the compensation for uncertainty demanded by hypothetical market participants. The use of a cost-of-capital approach is merely a means to estimate this hypothetical compensation for risks not reflected elsewhere in the valuation, i.e. insurance risks. We believe that there are multiple causes behind the overestimated MOCE. One is that the projected capital requirements are based on excessive shocks for underwriting risk. Another issue is the fact that the projected capital requirements are not tax-effected. Finally, and most pertinent to this question, we believe the adopted driver approach needs to be reviewed in terms of appropriateness.

Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, a more reasonable approach would be to apply explicit margins to the assumptions supporting the current estimate and project the difference between the best estimate liability and the liability including margins to determine the projected MOCE balance, and the MOCE should be recognized as loss absorbing.
MassMutual Financial Group	USA	Other	No	Yes	

Q54

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

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	

National Association of Insurance Commissioners	USA	IAIS Member	No	No	Using the ICS capital requirement as the base is premised on the assumption that, post-stress, insurance liabilities (including a margin) would be transferred to another insurer that the ICS applies to. This is not realistic and also means that a margin is being determined to earn adequate return for investors rather than adequate level of policyholder protection.
Ageas	Belgium	Other	No	Yes	We have a strong preference to use the Cost of Capital approach.
Canadian Institute of Actuaries	Canada	Other	No	Yes	
CLHIA	Canada	Other	No	Yes	
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Actuarial Association of Europe	European Union	Other	No	Yes	
Institut des Actuaires	France	Other	No	Yes	
Allianz	Germany	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	

German Association of Actuaries (DAV)	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	Yes	
International Actuarial Association	International	Other	No	No	Considered in isolation for the other elements of the ICS framework, the answer is no. Yes would be the answer if well integrated with the other provisions of ICS.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・It is almost proper, however as for CoC MOCE, when insurance contracts are transferred to a third party, all entities which underwrite such contracts should not be required the capital standard which is equivalent as IAIG (VaR99.5%, Time horizon:1-year). In other words, as it is thought that large-scale non-IAIG which can underwrite all insurance contracts IAIG has exists, it should be allowed that the capital standard such non-IAIG is required is referred.
General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・We believe the amount is largely appropriate. However, if CoC MOCE is set for the purpose of being transferred to the third party, the third party to which policies are transferred may not always be required to meet the same capital requirements as IAIGs. In each jurisdiction it should be allowed to refer to the level of capital that would be required for non-IAIGs which are large enough to accept policies transferred from IAIGs.
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	

Swiss Association of Actuaries	Switzerland	Other	No	Yes	
Swiss Re	Switzerland	Other	No	Yes	
National Association of Mutual Insurance Companies	United States	Other	No	No	NAMIC asserts that 99.5% one-year VaR is too high for a minimum capital standard. This requires all insurers to hold enough capital to address a 1 in 250 year event. Capital is not generally required at such a high level. For property/casualty insurers this is entirely out of proportion. The elimination of non-life discounting and MOCE can both be used to support a lower ICS capital requirement. This level of conservatism is not efficient based on a cost-benefit analysis. This high level of capital will only serve to render the industry less able to grow and less able to achieve success that would benefit policyholders. As stated earlier, we suggest that MOCE be eliminated altogether. For non-life contracts, we assert that the MOCE, especially the derivation of MOCE included in the P-MOCE proposal, simply adds back the conservatism included in non-discounted reserves and should be eliminated and non-life reserves left undiscounted to address this issue altogether in a less complicated manner. The intention of the consultation is not clear as there are discussions about different approaches taken during the field testing in various years. See response to question 47 for more details about the concerns. NAMIC suggests a clarification that the GAAP+ approach will include no discounting requirements for most non-life reserves, and, therefore, no MOCE as the necessary conservatism is addressed by the decision not to discount reserves. Our alternative for non-life insures is to eliminate the MOCE altogether. For non-life contracts, we assert that the MOCE, especially the derivation of MOCE included in the P-MOCE proposal, simply adds back the conservatism included in non-discounted reserves and should be eliminated and non-life reserves left undiscounted to address this issue altogether in a less complicated manner. CoC MOCE will do little more in the non-life sector. Elimination is the best approach.

Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. The IAIS describes the ICS capital requirement as a 99.5% one-year VaR, however it is unclear It what a "99.5% (or one-in-200) one-year" stress means in the context of long-term insurance products. Regardless, Prudential believes the design and calibration of certain stresses far exceed the targeted calibration. The stresses which apply to long-term insurance liabilities, such as those for mortality, longevity, morbidity, lapse and expenses, are applied over the full life of insurance liability cash flows. These cash flows can extend for 50 or more years. It is unreasonable to consider such stresses a one-year view only. Furthermore, the calibrations of certain stresses are excessive even if they were applied over a long-term horizon. It is reasonable to use a long-term horizon for insurance liabilities in the ICS capital requirements, as this aligns with the nature of risk for life insurance. However, this must be recognized by doing away with the notion that the ICS capital requirements are a "one year" provision, acknowledging that the ICS represents a long term horizon for long term insurance, and as such recognizing that the ICS capital requirements and MOCE are counting the long term risks (risks in years 2+) twice. Should the IAIS continue to include a MOCE in the ICS, a more reasonable approach would be to apply explicit margins to the assumptions supporting the current estimate calculation. These margins should be based on a level of calibration determined by the IAIG's appointed actuary. The current approach relies too heavily on the assumption that all products should have the same stress and thereby have the same degree of cash-flow uncertainty. While applying a standard shock may be appropriate for the determination of required capital, cash-flow uncertainty is highly dependent on each liability on the IAIG's Balance Sheet and should therefore take a refined approach that relies on the same processes the IAIG uses to develop its best estimate assumptions. In such case, the MOCE would be embedded in the liabilities

IAIS

					and the capital requirements would reflect risk in excess of the current estimates plus MOCE.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
Liberty Mutual Insurance Group	USA	Other	No	No	The 99.5% one-year VaR is not an appropriate amount of capital on which to base any aspect of the ICS, because capital is not generally required at this level. This standard would require insurers to hold capital at levels that are unreasonably conservative and not cost efficient.
MassMutual Financial Group	USA	Other	No	No	The combined impact of MOCE, reduced spread within the discount rate, and a 99.5% calibration of the ICS capital charges yields a view that we believe is overly conservative. As a result, we would suggest revisiting the factors to address the excess conservatism.

Q55

Q55 Section 4.3.5.1 *Projection of capital requirement* - Should the projected future capital requirements reflect minimal, average, or optimal diversification benefits (considering a willing buyer which is likely to achieve a conceivable synergy from the transaction)? If "yes", how can the diversification benefit be reflected in the CoC MOCE calculation?

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	Through the use of ICS correlation matrixes separately for Life and P&C business. Allowance of diversification benefits for composites companies between Life and P&C risks should also be studied and discussed.
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	As the diversification varies by trading parties, we support to use the average diversification benefit.
EIOPA	EIOPA	IAIS Member	No	Yes	The projected future capital requirement should reflect the diversification inherent in the insurer's portfolio. This is automatically the case when the insurer projects its capital requirement.
BaFin	Germany	IAIS Member	No	Yes	With respect to underwriting risks, the diversification of risks is reflected in the composition of the insurance liabilities being transferred and therefore automatically reflected where the MOCE is calculated based on projected capital requirements on the basis of these liabilities.
Financial Supervisory Service	Korea	IAIS Member	No	No	

Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No		The question is not completely unambiguous in terms of the meaning of “yes” and “no”, which is why we do not tick one or the other. If we understand the question correctly, there are two aspects: (1) What are the assumptions about how the hypothetical buyer’s business diversifies with the business of the IAIG? (2) Which segments of the IAIGs business are transferred to different buyers? Given the potential impact of corresponding assumptions and the difficulty in validating them, comparability (ICS principle 1) likely requires that assumptions be prescribed relatively unambiguously. For (1), given the size of IAIGs and considering that supervisors may not be able to force a buyer to take over the liabilities, it is likely prudent to reflect only minimal or no diversification benefits. For (2), assuming that the whole business is transferred to one buyer might be acceptable, but is quite an optimistic assumption, also given that IAIGs are globally active.
National Association of Insurance Commissioners	USA	IAIS Member	No	Yes	It is unlikely that the willing buyer will have the same risk profile as the IAIG that is transferring the liabilities. This means that there will be at least some diversification benefit. Using some "average" level of diversification would likely be best, though it is hard to say without better defining the term. Given the level of diversification within the ICS, it is at least theoretically possible for an insurer to assume liabilities without any material increase in capital requirement. If the cost-of-capital were the only factor determining the price of insurance, this would mean that the minimal or optimal cost of transferring the liabilities would be quite small. There are of course other factors driving the transfer price. For the purposes of this question, this would argue for less diversification. On the broader subject, that may suggest that cost-of-capital is not an optimal proxy for transfer value.

Ageas	Belgium	Other	No	Yes	Diversification benefits are implicitly taken into account in the approach COC of MOCE. This is based on the run off of the capital requirement (subrisks level). These need to be aggregated based on the prescribed correlation matrix.
Canadian Institute of Actuaries	Canada	Other	No	Yes	The projected future capital requirements should reflect optimal diversification benefits (considering a willing buyer is very likely to achieve a conceivable synergy from the transaction). The MOCE should provide for the marginal amount of capital needed for this block of business to be purchased by a third party. (i.e., assume additional capital requirements will be at a marginal level).
CLHIA	Canada	Other	No	Yes	The projected future capital requirements should reflect optimal diversification benefits in recognition of the acquirer being highly likely to realize synergy from the purchase
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	We propose to project future capital requirements based on the market average level of diversification effects. However, it needs further consideration on how this could be linked to the company's reported capital requirements at the valuation date.
Insurance Europe	Europe	Other	No	Yes	Any diversification benefits recognised in the determination of capital requirements should also be recognised in the MOCE.
Actuarial Association of Europe	European Union	Other	No	No	
Institut des Actuaires	France	Other	No	Yes	It should consider the actual diversification benefit of the IAIG entity. Justification of any other assumptions will be subjective conjecture and decrease comparability. A shell company assumption is consistent with S2.

Allianz	Germany	Other	No	Yes	Use same diversification as for ICS, since the portfolio transfers mostly occur in connection to idiosyncratic events not necessarily in times of global market stress, so that the rationale that underpins correlations in the ICS also holds for the MOCE.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	The diversification benefits should only be limited to the current existing diversification benefits.
German Association of Actuaries (DAV)	Germany	Other	No	No	
Munich Re	Germany	Other	No	Yes	The diversification benefit should be limited to the current existing diversification benefit only.
AIA Group	Hong Kong	Other	No	Yes	We suggest that the same correlations used for the group-wide capital requirement be used for the CoC MOCE as well. The ICS is intended to be a group-wide consolidated requirement and all elements should be calculated consistent with this.
International Actuarial Association	International	Other	No	Yes	The projected future capital requirements should reflect optimal diversification benefits (considering a willing buyer is very likely to achieve a conceivable synergy from the transaction). In most cases, the best overall price resulting from the sale of a large insurer or an insurance group is achieved through the separate sale of its various businesses to buyers who can offer the best price for one or more businesses. It is rare that the best sale price can be secured through a single buyer. The MOCE should provide for the optimal (sometime will be marginal amount) amount of capital needed for this block of business to be purchased by a third party. (i.e. assume additional capital requirements will be at a marginal level). In addition, because of the typically longer term nature of the liabilities, the MOCE may not need to reflect fire sale risk premiums. Another way to think of this is that in

					addition to the diversification benefit across multiple risks at a single point in time, there is also a diversification benefit as each of those risks occur over time at multiple points in the future due to the often illiquid nature of the liabilities
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	・If you define CoC MOCE in the case of transferring insurance policies, you should expect policies to be transferred to the other insurer who highly evaluate insurance policies . However, it would be better to take simplified method which is considered the diversifying effect in the CoC because it is very difficult to reflect the effect in the CoC MOCE.
General Insurance Association of Japan	Japan	Other	No	Yes	We think the idea of using variance/covariance matrices in the CoC-MOCE calculation is relevant considering the consistency with ICS capital requirement calculation.
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	No	In fact the answer is a qualified ‘no’, but ´no´ does not allow for qualifications. The CoC MOCE should not be based on a hypothetical buyer, but on the IAIG’s expected cost of capital to buffer the risk of the insurance liabilities.
Swiss Re	Switzerland	Other	No	No	
American International Group (AIG)	U.S.	Other	No	Yes	An “optimal” diversification benefit would be more appropriate. As demonstrated by several historical cases of insolvency, post-failure the insurance liabilities are often assumed and managed by a third party insurer, and a comparable magnitude of diversification benefit is often achieved by the acquiring insurer.

Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, the same diversification assumptions supporting the ICS required capital calculation should be used for MOCE. It is not possible to anticipate the expected diversification benefit of a potential buyer or the regulator resolving the company, but using any other assumption than the aforementioned further penalizes an IAIG by creating a disconnect between the definition of available and required capital.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
MassMutual Financial Group	USA	Other	No	Yes	This could be incorporated in the determination of the discount rate. It would be a simple but appropriate means of doing so.

Q56

Q56 Section 4.3.5.1 *Discount factor* - If Market risks and most of the Credit risk are excluded from the projection of the future capital requirements as per the 2016 Field Testing Technical Specifications, does this imply that such MOCE only allows a recapitalisation where no Market risk and only limited Credit risk could be supported (ie with not enough resources to take on market risks)? If “no”, please explain.

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	
National Association of Insurance Commissioners	USA	IAIS Member	No	No	Among other reasons, any assets that are "marked to market" would also have an implicit margin in them.

Canadian Institute of Actuaries	Canada	Other	No	No	It depends on what is used for discounting. If one allows more spread for discounting, then more capital for the default risk and interest rate risk might be needed. One must take into consideration the relationship between the MOCE and the discounting used in the calculation of the current estimate.
CLHIA	Canada	Other	No	No	The extent of spread inclusion and capital requirements for default risk and interest rate risk are inter-related. All other things being equal, the higher the spread inclusion, the higher the capital requirements.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Institut des Actuaires	France	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	No	Market risk and credit risk are already catered for in the basic valuation that takes account of the time value of options and guarantees.
International Actuarial Association	International	Other	No	No	It depends on what is used for discounting. If one allows more spread for discounting then more capital for C-1 and C-3 might be needed. One must take into consideration the relationship between the MOCE and the discounting used in the calculation of the current estimate. The CoC MOCE makes the (perhaps) optimistic, assumption that market and credit

					risks are largely hedgeable and therefore there is no need for a CoC MOCE for these risks, especially if risk free rates are used for discounting the insurance liabilities. If this approach to MOCE is maintained the capital requirement (and discounting approach as noted above) for market and credit risks must be carefully designed and calibrated to capture the ALM risks arising from mismatched portfolios, the risks (and margins) arising from participating (with profits) business and the non-diversifiable market risks associated with variable annuities with guarantees.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	
General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	Yes	
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	Yes	This is a qualified 'yes'. Given that there are liabilities with longer duration than available government bonds that are traded, the reinvestment risk can introduce material market and credit risk. The risk free rate is appropriate, but excluding market and credit risk for all insurance liabilities is not.
Swiss Re	Switzerland	Other	No	Yes	
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required

					capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, given that MOCE is currently calculated using pre-tax, pre-overall diversification Life type risk it cannot be assumed that there will not be sufficient capital available to recapitalize the company. Future required capital will be determined on a post-tax, post-diversification basis and there is no way to ascertain the future relationship between these two amounts. Furthermore, MOCE takes no consideration for available capital growth in the future. Without the ability to compare future required capital to future available capital, it is not possible to ascertain whether Market and Credit risk can be supported. Finally, the current MOCE construct assumes that the risk composition as of the current period will remain constant over future periods. Because it does not reflect changes in the risk profile of the company over time, it is not possible to ascertain what risks MOCE will or will not be able to support.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
MassMutual Financial Group	USA	Other	No	Yes	

Q57

Q57 Section 4.3.5.1 *Discount factor* - If no Market risk and only limited Credit risk could be supported by the level of recapitalisation allowed by the level of MOCE, then should the future return from invested assets free of Market risk and Credit risk be the risk free rate? If "no", please explain.

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	
Ageas	Belgium	Other	No	Yes	

Canadian Institute of Actuaries	Canada	Other	No	No	The total spread includes an illiquidity premium. If the intent is to deduct credit and market spreads, it still leaves some illiquidity spreads.
CLHIA	Canada	Other	No	No	The total spread should include an illiquidity premium.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Institut des Actuaires	France	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	No	See response to Q56
International Actuarial Association	International	Other	No	No	The total spread includes an illiquidity premium. If the intent is to deduct credit and market spreads, it still leaves some illiquidity spreads. The cost of credit implied in observed credit spreads reflects the cost of holding credit in a liquid market. Since many bonds can be and are held to maturity, the more relevant measure of credit exposure may be some level of standard deviations of losses above an average expected cost of default since those are the cash needs that need to be considered.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・Even if we assume assets which don’t have a market risk and a credit risk, characteristic of the liability corresponding to such assets should be reflected. As a

					result, a spread (e.g. illiquidity premium) may be generally recognized for an interest rate used as a risk-free rate.
General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・Characteristics of the corresponding liabilities should be reflected to the future return from invested assets even when assuming the assets are free of Market risk and Credit risk. As such, there would be some cases where some spreads (e.g. illiquidity premiums) are recognised against the benchmark rate, which is commonly used as the risk-free rate.
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	Yes	
Swiss Re	Switzerland	Other	No	Yes	
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. As commented on in our response to question 56, the complete lack of linkage between the current MOCE calculation with future required capital composition and balances provides no means to ascertain what risks and the level of risk a recapitalized entity will be able to support. Investing in corporate bonds and managing the associated credit risk is an essential aspect of funding long-term

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					insurance liabilities in the U.S. At the time of recapitalization an insurer would likely adjust their risk profile to accommodate the necessary market and credit risk their ongoing business model requires as opposed to investing only in risk free assets. As commented on in the question 56, the current MOCE calculation takes no consideration for future growth in available capital. It is entirely possible that future available capital growth will be able to fund required capital at a future point in time.
MassMutual Financial Group	USA	Other	No	Yes	

Q58

Q58 Section 4.3.5.1 *Discount factor* - Assuming that the answers to the two questions above are “yes” then is it consistent to discount the projected future capital requirement by the risk free rate? If “no”, please provide an alternative suggestion with rationale.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	The discount factor should be risk-free because taking any higher rate would imply that the MOCE investment is itself under risk, which would make calculations significantly more complicated without any clear gain. The risk-free rate should also be used for discounting when non-replicable market risk is included in the capital requirement on which the MOCE is based. This is because the discount rate is related to how the MOCE is invested and not a consequence of the risks the MOCE is intended to cover.
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	

Ageas	Belgium	Other	No	Yes	
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	
Actuarial Association of Europe	European Union	Other	No	Yes	
Institut des Actuaires	France	Other	No	Yes	
Allianz	Germany	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	
German Association of Actuaries (DAV)	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	No	MOCE should be discounted at the same rate as future cash flows.
International Actuarial Association	International	Other	No	No	The total spread includes an illiquidity premium. If the intent is to deduct credit and market spreads, it still leaves some illiquidity spreads. Also, see answer to Q57.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・It is not always consistent. (Cf. Q57)

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General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・It cannot always be consistent to discount the projected future capital requirement by the risk free rate. Please refer to the comment(s) on Question 57 for further explanation.
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	No	The cash flows of the MOCE are in itself interest rate dependent. The proposed interest rate dependence, see Q50, compensates partly for this, but not fully. Therefore the MOCE is an interest rate derivative and needs to be valued accordingly – not just discounted. The basis rate for this derivative is of course the risk free government bond rate. In other words, to the extent that the MOCE cash flows are by chance interest rate independent, valuation amounts to discounting using risk free government rates in the respective currency. IAIGs that pursue a risk prone production strategy of their liability cash flows (i.e. by promising cash-flows that involve market risk that only become replicatable at a later point in time, e.g. related to cash-flows beyond the current investment horizon, or related the options or guarantees that do not exist in current markets) need to take into account that they will need to recapitalize during periods of distressed financial markets. Their cost of capital rate becomes e.g. spread dependent. In this case the MOCE is a credit risk derivative and needs to be valued accordingly. Of course, this complication can be avoided where IAIGs abstain from promising cash-flows that require a risky production strategy.
Swiss Re	Switzerland	Other	No	Yes	

Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Should the IAIS continue to include a MOCE in the ICS, there are several reasons the risk-free rate is not an appropriate discount rate for MOCE (as discussed in our responses to questions 56 and 57). 1) MOCE is designed to ensure solvency in future periods. Solvency requires future available capital to be greater than future required capital. Available capital will grow at the company's Return on Equity (ROE) or Weighted Average Cost of Capital (WACC), not the risk-free rate. Because the ICS and its CoC-MOCE construct holds future required capital as a time zero charge instead of comparing future available capital to future required capital, there needs to be some means of recognizing the growth of available capital over time. The closest approximation which would be appropriate is to discount MOCE charges using the company's ROE, WACC, or an appropriately tailored industry average WACC. 2) Building on point #1, future required capital should reflect the company's risk profile at future points in time. MOCE makes no attempt to reflect changes in the risk composition of and IAIG over time, both because it does not project risk exposures over time and because it looks at pre-tax, pre-overall diversification required capital. Even if a company approaches a future point in time requiring it to recapitalize, there are material and readily available means by which an IAIG can shift its risk profile to allow it to remain solvent. As these actions are taken, IAIG's business models will require them to continue to utilize corporate bonds and other asset classes which earn spreads in excess of risk-free rates. Even if there are arguments against using ROE or WACC as the discount rate, the risk-free rate is still not the appropriate discount rate for MOCE.

MassMutual Financial Group	USA	Other	No	No	For the MAV approach, this is consistent. However, if we are dealing with an alternative GAAP+ approach, this would require more study to determine the appropriate rate to align with the liability valuations.

Q59

Q59 Section 4.3.5.1 *Discount factor* - Should the discount factor be linked in some way to the hurdle rate (cost of capital parameter)? If "yes", please provide an alternative suggestion to discounting at risk free rate and the rationale.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
EIOPA	EIOPA	IAIS Member	No	No	. The discount factors should be risk-free and without spread adjustment.
BaFin	Germany	IAIS Member	No	No	
Financial Supervisory Service	Korea	IAIS Member	No	No	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	No	See answer to Q58
Ageas	Belgium	Other	No	No	
Canadian Institute of Actuaries	Canada	Other	No	No	
CLHIA	Canada	Other	No	No	

Actuarial Association of Europe	European Union	Other	No	No	
Institut des Actuaires	France	Other	No	No	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	No	
German Association of Actuaries (DAV)	Germany	Other	No	No	
Munich Re	Germany	Other	No	No	
AIA Group	Hong Kong	Other	No	No	
International Actuarial Association	International	Other	No	No	
General Insurance Association of Japan	Japan	Other	No	No	
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	No	
Swiss Re	Switzerland	Other	No	No	

Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital.MOCE is designed to ensure solvency in future periods. Solvency requires future available capital to be greater than future required capital. Available capital will grow at the company's Return on Equity (ROE) or Weighted Average Cost of Capital (WACC), not the risk-free rate. Because the ICS and its CoC-MOCE construct holds future required capital as a time zero charge instead of comparing future available capital to future required capital to identify future insolvencies, there needs to be some means of recognizing the growth of available capital over time. The closest approximation which would be appropriate is to discount MOCE charges using the company's ROE, WACC, or an appropriately tailored industry average WACC. While firm-specific ROE is the most appropriate measure to use as a discount rate, firm-specific WACC may be easier to calculate and apply consistently across the industry. To the extent that MOCE should already be using an appropriately tailored industry average WACC to determine cost of capital, MOCE charges and discount rates will be equivalent. The resulting time zero balance will be equal to time zero required capital after removing the impact of run-off (which perfectly illustrates how the current MOCE construct results in double-counting of required capital).
MassMutual Financial Group	USA	Other	No	No	

Q60

Q60 Section 4.3.5.1 *Interaction with capital resources and capital requirement* - Should the CoC MOCE be part of the valuation of insurance liabilities and not included in capital resources? If "no", please explain.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	
China Insurance Regulatory Commission	China	IAIS Member	No	No	CoC-MOCE requires many judgements for assumptions in developing markets and P-MOCE has an obvious double counting with the capital requirements. We would view that both of the MOCE can absorb losses and therefore not be counted in liabilities.
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	The MOCE is needed to be part of the valuation of insurance liabilities because the value of insurance liabilities cannot just be the current estimate: the current estimate is an expected value (an "average"), so it will not be sufficient to produce the

					insurance liabilities with the desired confidence level – for that, the capital to be provided through the capital costs are needed.
National Association of Insurance Commissioners	USA	IAIS Member	No	No	By definition, if the ICS is to have a margin of some kind, then this margin would be treated as a liability. But this does not imply the full cost-of-capital should be treated as a liability. Even assuming that this amount could be calculated accurately (a big if), payments to investors are subordinate to payments to policyholders. Further, there is no reason to think the cost-of-capital would be unaffected by a stress scenario. This could lead to it absorbing (or exacerbating) losses in the scenarios that are used to determine the capital requirement.
Ageas	Belgium	Other	No	Yes	
Canadian Institute of Actuaries	Canada	Other	No	Yes	
CLHIA	Canada	Other	No	Yes	
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	No	We believe that the current ICS valuation system is on the going concern basis. There is no sound theoretical basis that the MOCE be included in liabilities and thus deducted from capital resource. In other words, we believe it should not be included in the liabilities.
Insurance Europe	Europe	Other	No	No	Insurance Europe does not believe that the introduction of MOCE is necessary. In fact, a transfer MOCE would only be necessary if there is a need for transfer, so from this perspective MOCE could be seen as a reference point for the supervisor with the understanding that interventions should occur before the breaching of the MOCE, in order to allow for a transfer of portfolio. In addition, any risk associated to uncertainty of cash flows is already reflected in the

					capital requirements so, if a MOCE was calculated, it should not be treated as a liability.
Institut des Actuaires	France	Other	No	Yes	
Allianz	Germany	Other	No	No	Any MOCE provides a safety cushion against deviations from the best estimate liability and is available on a contingent basis to be paid out to policyholders. As such the MOCE falls into the definition of capital resources as resources that are available on a contingent basis to cover negative scenarios. A MOCE may be considered as minimum capital requirement but should not be classified as a liability.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
Global Federation of Insurance Associations	Global	Other	No	No	While GFIA does not support the inclusion of MOCE within the ICS, if it is included, it should be part of capital resources rather than insurance liabilities to reduce double counting.
AIA Group	Hong Kong	Other	No	No	We believe that MOCE are additional amount above the liability and that they are therefore part of capital resources. MOCE, especially cost of capital MOCE can play a role within the framework as an MCR, as they represent the amount, in addition to best estimate liabilities, that a buyer would demand to assume the liabilities.
International Actuarial Association	International	Other	No	No	See answer to Q66.

IAIS

Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・We consider that the rationality for introducing MOCE into ICS has not been explained enough. A conclusion that MOCE should be included in insurance liabilities may be derived if IAIS considers that it is necessary to transfer policies to third parties through market mechanism to protect policy-holders and that the aim of the regulation is to ensure insurers' capital level that makes it possible to transfer policies to third parties under stressed situations. First of all, we believe that this issue needs to be discussed among the stakeholders. We cannot agree to the IAIS's opinion that prudence or uncertainty should be reflected in the valuation of insurance liabilities because the opinion will result in double-count between risk charge and prudence or uncertainty in capital regulation even though there is some rationality in financial accounting which doesn't have concept of risk charge. ・If there is no clear conclusion for the issue above, it is enough to assess IAIG's capital adequacy by valuating proper insurance liabilities without prudence and requiring the capital charge based on appropriate confidence level, and complexity should not be introduced into the valuation of insurance liabilities. ・Even if the IAIS aims to ensure insurers' capital level that makes it possible to transfer policies to third parties for policy-holders protection, the IAIS should take into account the existence of the developed failure resolution system. For example, in Japan, it is possible to protect policy-holders in situations where insurer becomes bankrupt by ways other than transferring policies to third parties through the market mechanism and failure resolution process generally includes cutting payable. MOCE is not necessary in these cases. Therefore, the necessity of MOCE is small from the perspective of policy-holders protection. IAIS should require MOCE with reflection of policy-holders protection systems in each jurisdiction. ・Additionally, if MOCE is taken into account as part of the valuation of insurance liabilities, since adjustments will arise from the difference between insurance liabilities of ICS and those of tax accounting in insurers' jurisdiction, tax effects should be obviously taken into account.

General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・This MOCE development issue should be discussed to be consistent with the purpose of the regulation (i.e. what action should be taken?) because the appropriate measurement for insurance liabilities heavily depends on the purpose of the regulation. If the purpose is to transfer capital to a third party, the MOCE should be part of the insurance liabilities. However, if the purpose is to ensure fulfilment of the own insurance liabilities, the point is that assets required for the fulfilment should be secured. Therefore whether the assets should be prepared as liabilities or as capital would not be defined. ・At this time, there is no clear conclusion about the purpose of the regulation (please refer to paragraph 197 of the CD for example). Based on the current situation, establishing classification based on transfer value with ambiguous purpose would be inappropriate. Therefore, it is recommended the IAIS take a simple method to measure insurance liability with no prudence and to require the capital amount with an appropriate confidence level. ・Even assuming transfer of policies through market mechanism in policyholder protection, in Japan, a well-structured framework ensures policyholder protection in the case of failure using approaches other than transfer of policies through market mechanism. The resolution procedure often includes debt waiver and MOCE is not necessary. Accordingly, MOCE is not necessary from the perspective of policyholder protection in such jurisdictions. The IAIS should require MOCE for each jurisdiction reflecting their own policyholder protection scheme. ・Moreover, the appropriate MOCE valuation approach remains unresolved at this time Therefore, the meaning of liability including MOCE would be ambiguous. This would make the capital adequacy of the IAIGs ambiguous as well. ・In such cases, the entire amount exceeding the current estimate liability after tax adjustments should be classified in Tier 1 capital resources without limits. It is obviously inappropriate to identify the liabilities that have accumulated separately from capital (retained earnings) in order to clarify the purpose of policyholder protection as having less loss absorbency compared to retained earnings which

					could be distributed to shareholders. ・Incorporating prudence into the valuation of insurance liabilities or assets would increase the possibility of double counting and making the truly required capital amount ambiguous. ・Additionally, if the MOCE is included as part of the valuation of insurance liabilities, tax effects should be recognised because there needs to be adjustments of insurance liabilities for tax accounting in each jurisdiction.
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	
Swiss Association of Actuaries	Switzerland	Other	No	Yes	
Swiss Re	Switzerland	Other	No	Yes	
Bupa	UK	Other	No	Yes	
Association of British Insurers	United Kingdom	Other	No	No	While the ABI does not support the inclusion of MOCE within the ICS, if it is included, it should be part of capital resources rather than insurance liabilities to reduce double counting
American Academy of Actuaries	United States of America	Other	No	No	MOCE represents loss absorption capacity and should be recognized in capital resources. Alternatively, if the IAIS wishes to include this loss absorption capacity in the valuation of insurance liabilities, the MOCE should be carved out of the capital requirements, as both reflect a provision for losses in excess of current estimates.
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double

					counting risk by reducing available capital for a MOCE and not adjusting required capital. Margins in reserves are backed by loss absorbing assets and should be treated as Tier 1 available capital. Should the IAIS continue to include a MOCE in the ICS and include MOCE in the valuation of insurance liabilities, the MOCE should be carved out of the capital requirements, as both reflect a provision for losses in excess of current estimates.
CNA	USA	Other	No	No	No. CNA continues to question the analytical benefit of developing a standardized MOCE which is rigid, overly complex, and in the case of the cost of capital method, significantly raises the ICS capital requirement above the stated calibration level. Margin is a universally accepted concept in GAAP frameworks intended to buffer against adverse development relative to a central estimate, which is the same fundamental role of capital. Therefore, if the IAIS is going to require firms to formulaically establish a specifically identifiable volatility buffer, which we do not support; CNA recommends releasing this buffer into capital to ensure accurate and consistent presentation for all loss absorbing funds.
MassMutual Financial Group	USA	Other	No	Yes	

Q61

Q61 Section 4.3.5.1 *Interaction with capital resources and capital requirement* - Is holding the CoC MOCE, in addition to a 99.5% VaR calibrated capital requirement, a condition to ensure that the IAIG remains prudentially viable with a 99.5% probability (by providing the cost to serve a level of capital meeting the supervisory capital requirement)? If "no", please explain.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	See answers to Q60 and Q63
National Association of Insurance Commissioners	USA	IAIS Member	No	No	The ICS, as presented in CD, is on a one year 99.5% VaR. We take this to mean that there is supposed to be a 99.5% probability the IAIG´s assets will exceed their liabilities (which include MOCE) at the end of one year. There is no intention in the

					ICS for an insurer that is no longer viable after 1 year to still be subject to the ICS or even to still be a going-concern.
Canadian Institute of Actuaries	Canada	Other	No	Yes	
CLHIA	Canada	Other	No	Yes	On the condition that the CoC MOCE and the 99.5% VaR capital requirement (i.e. ICS capital requirement) are calibrated appropriately.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	No	We think the current ICS capital resource and capital requirement valuation system reflects the capital that should be hold by the company under the current condition and under 1- 200 risk scenarios on the going concern basis, so the CoC-MOCE under the transfer business framework should not be considered. Especially for developing countries which lack an active market for transactions of inforce business book, there is no theoretical basis or supporting data for this. Please refer to our answers in Q66 for details.
Institut des Actuaires	France	Other	No	No	The purpose of the CoC MOCE is not prudential solvency.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	
Munich Re	Germany	Other	No	Yes	
AIA Group	Hong Kong	Other	No	No	We believe this is overly conservative, as explained above.
International Actuarial Association	International	Other	No	No	But also consider our response in Q66. And also remember that the above statement is true by definition if one assumes that viability at 99.5% is correctly measured by a 99.5% VaR. At best it is a close approximation, but ignores the

					impact of fat tails and that some failure may occur for risks for which capital does not apply (moral hazard) or for which it may inherently not be sufficient as for a major operational risk issue.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・Please refer to Q60.
General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・Please refer to the comment(s) on Question 60 for the rationale. ・Assets that is equivalent to the sum of " current estimate of insurance liability " and "99.5% VaR calibrated change in Net Asset Value" ensures the insurer´s own ability of fulfilment at the 99.5% confidence level. ・Therefore, from the perspective of ensuring insurer´s own ability of fulfilment, there is no need for requirement of additional assets equivalent to MOCE.
Great Eastern Holdings Ltd	Singapore	Other	No	No	When the 99.5% var capital requirement is applied, the IAIG would supposedly remain prudentially viable with a 99.5% probability already.
Swiss Association of Actuaries	Switzerland	Other	No	Yes	
Swiss Re	Switzerland	Other	No	Yes	
Bupa	UK	Other	No	Yes	
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required

					capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Further this results in an extremely excessive calibration. Should the IAIS continue to include a MOCE in the ICS, as currently designed it will not ensure the solvency of an IAIG in future periods. Reasons for why MOCE does not ensure solvency are discussed in our responses to questions 53-59.
CNA	USA	Other	No	No	No. Costs of capital are theoretical expenses, not actual expenses ever paid by the insurer. It is inappropriate to include these as a liability and is essentially a further capital requirement (e.g. artificially inflating liabilities results in artificially reduced capital). A more straight-forward and transparent approach is to eliminate the CoC MOCE as a component of liabilities and treat it as capital.
MassMutual Financial Group	USA	Other	No	Yes	

Q62

Q62 Section 4.3.5.1 *Interaction with capital resources and capital requirement* - If CoC MOCE is targeted to a level of prudential viability, is the current definition of capital resources appropriate? If "no", please explain, including details of what level of prudential viability should be maintained, and whether other forms of capital resources should be considered for that purpose.

Organisation	**Jurisdiction**	**Role**	**Confidential**	**Answer**	**Answer Comments**
China Insurance Regulatory Commission	China	IAIS Member	No	No	If CoC MOCE is targeting a level of prudential viability, there will be a duplication with the capital requirement, in this case MOCE should be either treated as a liability but the capital requirement be reduced with the same amount of MOCE, or the MOCE is removed from the liabilities.
EIOPA	EIOPA	IAIS Member	No	Yes	
BaFin	Germany	IAIS Member	No	Yes	
Financial Supervisory Service	Korea	IAIS Member	No	Yes	
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	

Canadian Institute of Actuaries	Canada	Other	No	Yes	
CLHIA	Canada	Other	No	Yes	
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	No	According to the definition of capital resource, we think CoC MOCE should not be deducted from capital resource as it can absorb losses.
AIA Group	Hong Kong	Other	No	No	The 99.5% VAR is an appropriate level for a MOCE that plays the role of an MCR. MOCE should not be part of the liability.
International Actuarial Association	International	Other	No	No	See answers in Q66 for a way to discern if other resources could/should be considered.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・Please refer to the answer for Q60.
General Insurance Association of Japan	Japan	Other	No	Yes	
The Life Insurance Association of Japan	Japan	Other	No	No	・Please refer to the comment(s) on Question 60 for the rationale.
Great Eastern Holdings Ltd	Singapore	Other	No	Yes	

Swiss Association of Actuaries	Switzerland	Other	No	Yes	
Swiss Re	Switzerland	Other	No	Yes	
Bupa	UK	Other	No	Yes	
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Details for a more appropriate definition of capital resources and the role MOCE should play in that definition are described in our responses to questions 53-60.
MassMutual Financial Group	USA	Other	No	Yes	

Q63

Q63 Section 4.3.5.1 Interaction with capital resources and capital requirement - Is there any double counting between the CoC MOCE and the capital requirement? Please explain.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	No	
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	As answered in Q62, when the capital requirement is prepared for a 1-200 event for assets and liabilities, there is a double counting when we use MOCE as a further prudence for liabilities.
EIOPA	EIOPA	IAIS Member	No	No	The objective of the capital requirements is to ensure that insurance obligations can still be met when the IAIGs is affected by a 200-year event. After such an event an IAIG with 100% solvency ratio would have lost all its capital resources. However, in order to transfer the insurance obligations to another insurer or to safely wind them up itself, the current estimate liabilities are not sufficient, but a CoC MOCE is needed. Not requiring a CoC MOCE would significantly jeopardise the reorganisation and resolution after a 200-year event.
BaFin	Germany	IAIS Member	No	No	
Financial Supervisory Service	Korea	IAIS Member	No	No	

Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	No	There is no double counting as the two serve different and complementing purposes: the capital requirement is for the first year (one-year time horizon), the MOCE is for the following years.
National Association of Insurance Commissioners	USA	IAIS Member	No	Yes	From a policyholder perspective, it is best to treat any margin as loss absorbing. Even on its own terms, there is double counting in the formula used to calculate CoC-MOCE in the ICS. This formula assumes that, even in the event of a stress, a payment will be made to investors in one year's time. Investors are subordinate to policyholders so, at a minimum, this portion of the margin is loss absorbing. For later years, the "no double counting" argument for CoC-MOCE rests on the assumption that there is no uncertainty in the return to investors after this one year period. The formula assumes the expected payments to investors in later years are the same: i) whether or not there is a stress; and ii) whether or not liabilities are transferred. We do not think this assumption is realistic.
Ageas	Belgium	Other	No	No	The CoC MOCE is the cost covering uncertainty in the cashflows. It is an amount that should reduce your available own funds. The Capital requirement could be different when the original company is transferred to a third party, who could apply Internal model or other calculation techniques to define a different capital charge.
ABIR Association of Bermuda Insurers & Reinsurers	BERMUDA	Other	No	Yes	It is clear that the current specification of the ICS basis is over calibrated in aggregate and that the over calibration includes double counting in a range of areas. In the case of the CoC MOCE there is prudence in the balance sheet and in the capital as such the capital resilience to pay claims exceeds a 1 in 200 scenario.
Canadian Institute of Actuaries	Canada	Other	No	No	Conceptually, there is no double counting given the CoC MOCE is to cover the future uncertainty of insurance and operational risks and the capital requirement is calibrated to 99.5% VaR over one-year horizon. However, double counting exists

					in the 2016 IAIS Field Testing due to the conservative MAV discount rates. The resulting inflated current estimate and capital requirement overlap with the MOCE.
CLHIA	Canada	Other	No	Yes	Double counting exists in the 2016 IAIS Field Testing due to the conservative MAV discount rates. The resulting inflated current estimate and capital requirement overlap with the MOCE.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	We think there is certain double counting between the CoC MOCE and the capital requirement. The capital requirement has reflected the capital required to cover the losses of 1-200 risk scenarios, which reflect the uncertainty of the contractual cash flows under extreme events. CoC MOCE in nature is also the additional amount required to avoid the uncertainty of the contractual cash flows. As a result, there is definitely certain double counting between these two items. Similarly there is also double counting between the P-MOCE and the capital requirement.
Insurance Europe	Europe	Other	No	Yes	
Institut des Actuaires	France	Other	No	No	Conceptually 2 different things.
Allianz	Germany	Other	No	Yes	
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	A double counting would occur if the CoC of year t=0 is considered in both.

Munich Re	Germany	Other	No	Yes	Only if the CoC of year t=0 is considered in both.
Global Federation of Insurance Associations	Global	Other	No	Yes	
AIA Group	Hong Kong	Other	No	Yes	See foregoing answers.
International Actuarial Association	International	Other	No	No	
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	・In case that the conservativeness should be reflected in the measurement of insurance liabilities, there may be double counting between the CoC MOCE and the capital requirement. Please refer to Q60.
General Insurance Association of Japan	Japan	Other	No	No	The proposed CoC-MOCE is the cost of raising capital on a going concern basis. It has different characteristics from current estimates or capital requirements. The current estimate is merely a base to calculate CoC-MOCE, and we do not think there is any double counting.
The Life Insurance Association of Japan	Japan	Other	No	Yes	・Please refer to the comment(s) on Question 60 for the rationale.
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	No	We would like to state here that the CoC MOCE is not a choice (or an element of prudence) in a market consistent valuation framework. It is rather the expected cost of capital to produce the non-hedgeable risks of liabilities in a fashion that is sufficiently secure. The level of security is given by the prudential capital

					requirement. By this, it is as much part of technical provision as the expected other expenses or expected claims payments. The stochastic change of the CoC MOCE over a one year time horizon impacts the capital requirement. Capital is used to buffer risks during a one year time horizon, while the CoC MOCE covers the expected cost of having to hold capital until the expiry of the liabilities.
Swiss Re	Switzerland	Other	No	No	The purpose of MOCE is to account for the production cost of the liabilities including the cost of capital. This position is not loss absorbing and therefore is not capital.
Bupa	UK	Other	No	No	The MOCE should be regarded as, by definition, an element of the valuation basis for insurance liabilities which enables them to be valued consistently across jurisdictions. It is therefore distinct from the capital requirement.
RAA	United States and many other jurisdicitons	Other	No	Yes	The current specification of the ICS basis is over calibrated in aggregate and the over calibration includes double counting in a range of areas. In the case of the CoC MOCE there is prudence in the balance sheet and in the capital and as a result the capital resilience to pay claims exceeds a 99.5% VaR over a one year time horizon.
American Academy of Actuaries	United States of America	Other	No	Yes	MOCE represents loss absorption capacity and should be recognized as part of available capital resources. Alternatively, if the IAIS wishes to include this loss absorption capacity in the valuation of insurance liabilities, the MOCE should be carved out of the capital requirements, as both reflect a provision for losses in excess of current estimates.

Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. We offer the following remarks should the IAIS continue to include a MOCE in the ICS: + CC-MOCE Rationale 3 draws upon the idea that we should hold all costs associated with required capital over the life of the enterprise on our current Balance Sheet. We consider this to be a fundamentally flawed conflation of solvency with profitability concerns. Cost of capital is primarily associated with embedded value calculations intended to identify the value of a company, line of business, or product. Assuming that our future cost of capital will be unavailable to absorb losses is an unsubstantiated assumption and makes the ICS overly complicated as a solvency framework. With respect to solvency, the current CC-MOCE is fundamentally flawed because it assumes we are only going to generate a risk-free return on our capital. This results in double-counting of the capital requirement. The available capital supporting our required capital demands that we meet the Return on Equity (ROE) we communicate to our external stakeholders, or at a minimum the Weighted Average Cost of Capital towards which we internally manage. As such, available capital will grow at a rate between our ROE and WACC. If we assumed we were only able to generate a risk-free return on this capital, as assumed by the current CC-MOCE design, we wouldn't be in the insurance business. CC-MOCE as currently designed and allegedly supported by Rationale 3 could result in exactly this situation, declaring well-funded companies insolvent because the IAIS assumes they are unable to generate returns in excess of their cost of capital. This rationale is fundamentally opposed to the economics of insurance. + MOCE inappropriately understates the current period ICS ratio because it does

					not take into consideration growth of future available capital. While an insurance company will need to hold required capital in future periods for the risks on its Balance Sheet at that future point in time, that future required capital will be funded by future available capital. Unless MOCE appropriately incorporates anticipated growth in available capital, for example by discounting MOCE by an insurer's WACC instead of a risk-free rate, it has the potential to make an insurer insolvent despite the possibility that it will be able to fund future required capital from growth in available capital.
CNA	USA	Other	No	Yes	Yes. Costs of capital are theoretical expenses, not actual expenses ever paid by the insurer. It is inappropriate to include these as a liability and is essentially a further capital requirement (e.g. artificially inflating liabilities results in artificially reduced capital). A more straight-forward and transparent approach is to eliminate the CoC MOCE as a component of liabilities and treat it as capital.
MassMutual Financial Group	USA	Other	No	Yes	Currently, the MOCE is not accessible to cover the cost of stresses and it is not part of the capital resource. It should be one or the other, but not both.

Q64

Q64 Section 4.3.5.2 Should the P-MOCE be loss absorbing? Please explain and if "yes", elaborate on the circumstance(s) in which this loss absorption may occur.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	Yes	We view that when a company becomes insolvent, P-MOCE can be released to absorb losses.
EIOPA	EIOPA	IAIS Member	No	No	The purpose of the MOCE should be to ensure the viability of the insurance liabilities on an on-going basis, hence it should not be considered loss absorbing over the one year time horizon.
BaFin	Germany	IAIS Member	No	No	
Financial Supervisory Service	Korea	IAIS Member	No	No	
National Association of Insurance Commissioners	USA	IAIS Member	No	Yes	
Ageas	Belgium	Other	No	No	We are not in favour of using this approach

Canadian Institute of Actuaries	Canada	Other	No	No	MOCE, together with the current estimate, is meant to cover the cost of transferring the liability to a third party.
CLHIA	Canada	Other	No	No	The sum of the current estimate liability and the MOCE covers the exit cost of transferring obligations to a third party.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	We think the P-MOCE has the loss absorbency capacity even if it's assumed to be a prudence for liabilities. When the solvency of the company is not sufficient, P-MOCE could be released as a capital resource.
Institut des Actuaires	France	Other	No	No	If it was loss absorbing it should be a resource and not a requirement ie not included in the liabilities.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	No	
Munich Re	Germany	Other	No	Yes	This would just move the buffer from MOCE to Capital resources without an impact on the risk situation.
AIA Group	Hong Kong	Other	No	Yes	We do not believe that P-MOCE are an appropriate approach. When P-MOCE are added to the policy liability required capital has an element of double counting.
International Actuarial Association	International	Other	No	No	We understand P-MOCE is meant to allow for the runoff and fulfillment of an existing block of business. Like capital and reserves, it then functions as a loss absorbing resource. In addition one needs to consider the tax implications for a run off purposed MOCE (as part of a reserve) versus a going concern basis as part of capital. See our comments to Question 66. We also expect that those

					regimes which currently use a P-MOCE will provide more in-depth comments on this topic.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	・Should clearly define that P-MOCE has loss absorption in the part of excess amount of the appropriately measured best estimated liability.
General Insurance Association of Japan	Japan	Other	No	No	Insurers are exposed to various risks. We cannot assume any correlation between "occurrence of a certain risk reducing manifestations of another". Even for the same risks, we cannot deny the possibility of more extreme stress emerging. Therefore, we must say that the assumption that "uncertainty disappears or significantly decreases after a stress" is unrealistic. Even for a simplistic approach, the idea that "we carry a similar level of risk even after a stress event and therefore a similar level of MOCE is required" more accurately reflects reality.
The Life Insurance Association of Japan	Japan	Other	No	Yes	・Please refer to the comment(s) on Question 60 for the rationale. ・While the cost of capital method is practical, risk-sensitive and highly available in making decisions on investment in companies, many concerns remain to be resolved regarding its currently proposed calculation approach such as the percentage of cost of capital, reflection of the tax effect, and run-off patterns.
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	No	The P-MOCE is part of the technical provisions and absorbs losses not over a one year time horizon but over the ultimate. We would also like to state that the P-MOCE is not a valid approach for a market consistent valuation standard, and could only be considered – possibly – to make sense in USGAAP.

Swiss Re	Switzerland	Other	No	No	The purpose of MOCE is to recognize that assets must be held to cover the cost of holding capital for running down the insurance business. This becomes especially tangible when imaging a scenario in which the liabilities must be transferred to a third party to be put in runoff. The third party will demand compensation in the amount of the discounted sum of future capital costs. This is the MOCE – clearly, this can´t be loss absorbing. Further, as a direct consequence of this purpose of MOCE, we believe the CoC-MOCE approach is the only approach method for calculation of MOCE.
RAA	United States and many other jurisdicitons	Other	No	Yes	P-MOCE as a margin to ensure policy holder protection is by definition loss absorbing. For GAAP plus filers that do not discount loss reserves it is implicit in the undiscounted valuation of claim reserves.
Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. Margins in reserves are backed by loss absorbing assets and should be treated as Tier 1 available capital.
CNA	USA	Other	No	Yes	Yes. P-MOCE should be loss absorbing. It represents funds collected by the insurer for events that have not yet occurred, and as such, is available to pay losses.
MassMutual Financial Group	USA	Other	No	Yes	Any MOCE (P-MOCE or CoC-MOCE) should be loss absorbing. Reserves should be the first line with MOCE as part of that and then capital should be accessed.

Q65

Q65 Section 4.3.5.2 Should the P-MOCE be stressed along with other balance sheet items in the calculation of the ICS capital requirement? Please explain.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
China Insurance Regulatory Commission	China	IAIS Member	No	No	If P-MOCE is counted as an liabilitiy component, a stress should be applied.
EIOPA	EIOPA	IAIS Member	No	No	A proportionate approach should be taken. The added accuracy in the solvency assessment by stressing the margin does not outweigh the complexity introduced by recalculating the stressed margin.
BaFin	Germany	IAIS Member	No	No	Any stress is not supported as it would lead to additional computational complexity with little added value with respect to accuracy.
Financial Supervisory Service	Korea	IAIS Member	No	No	
National Association of Insurance Commissioners	USA	IAIS Member	No	Yes	Like any other liability, a margin should be stressed. This is true for a margin based on prudence (as in this question) and also for a cost-of-capital margin.
Canadian Institute of Actuaries	Canada	Other	No	No	While in principle this could be considered consistent with the terminal provision concept, we feel that the exercise is not worthwhile (only adds spurious accuracy).

CLHIA	Canada	Other	No	No	We do not feel this is material enough to warrant.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	No	We recommend that for easy implementation the capital requirement could be considered based on current estimate and the stress on P-MOCE can be ignored.
Actuarial Association of Europe	European Union	Other	No	Yes	In general we prefer a CoC-approach rather than the P-MOCE. We believe the CoC approach leads to better comparability.
Institut des Actuaires	France	Other	No	No	There is already an element of double counting. If the capital requirement is well calibrated then the P-MOCE is an additional requirement. It is inconsistent with a fair value liability approach. The margins are in the capital resources – the P-MOCE anticipates the need for loss absorption by increasing the liabilities.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	No	
Munich Re	Germany	Other	No	No	This would be too complex.
AIA Group	Hong Kong	Other	No	No	We do not believe P-MOCE are appropriate.
International Actuarial Association	International	Other	No	No	While in principle this could be considered consistent with the terminal provision concept, we feel that the exercise is not worthwhile as it only adds spurious accuracy.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	No	・Unnecessary to be stressed along with other balance sheet items because the concept of conservativeness and uncertainty is already incorporated in P-MOCE.

General Insurance Association of Japan	Japan	Other	No	No	
The Life Insurance Association of Japan	Japan	Other	No	No	・The P-MOCE could be considered as a buffer against uncertainty in the valuation of insurance liabilities. Given this, we believe that only the current estimate of insurance liability should be subject to the stress and subsequent additional stress is not necessary. The amount of stress does not have to be determined to cover the uncertainty.
Great Eastern Holdings Ltd	Singapore	Other	No	No	P-moce is essentially a buffer against adverse deviations from the best estimate. Hence, any stresses should be done on best estimate only.
Swiss Association of Actuaries	Switzerland	Other	No	Yes	Yes. For the one year risk capital, the change on available capital resources has to be determined. This includes changes in technical provision which then includes changes in the P-MOCE.
Swiss Re	Switzerland	Other	No	No	We believe the CoC-MOCE approach is the only approach method for calculation of MOCE.
RAA	United States and many other jurisdicitons	Other	No	No	We do not believe the P-MOCE should be stressed as it would add significant complexity. It is unclear why there is a suggestion to stress the P-MOCE, but not the COC MOCE as they serve the same purpose.
Prudential Financial, Inc.	United States of America	Other	No	No	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required

IAIS

					capital. In addition, MOCE is already a provision for risk in excess of best estimates. It is by definition a “stress”.
MassMutual Financial Group	USA	Other	No	No	P-MOCE represents the ‘variance’ associated with the base assumption. As such, stress increases or decreases in the assumption should not impact the variance.

Q66

Q66 Section 4.3.6 Are there any further comments on MOCE that the IAIS should consider in the development of ICS Version 1.0? If "yes", please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Role	Confidential	Answer	Answer Comments
Bermuda Monetary Authority (BMA)	Bermuda	IAIS Member	No	Yes	The BMA supports the development of a consistent and comparable MOCE as it is a fundamental concept in economic valuation and without a consistent and comparable MOCE risk evaluations and peer-wide comparisons will be distorted. We support the principles underlying the Cost-of-Capital approach and not support the development of a prudent MOCE as it is not an economic consistent approach and thus theoretically inconsistent with the goals of the ICS. While not necessarily fixed, we recommend that the CoC rate to be a fairly stable parameter that responds to fundamental changes and trends in economic factors but not to short term market volatility effects so to avoid that undue volatility (noise as opposed to signal) is introduced in the balance sheet through the risk margin.
China Insurance Regulatory Commission	China	IAIS Member	No	No	
BaFin	Germany	IAIS Member	No	No	

Financial Supervisory Service	Korea	IAIS Member	No	Yes	Q48) In Korea, GAAP and MAV basis will be similar to each other after full implementation IFRS in 2021. Q51) Including three listed risks are deemed appropriate in light of increasing comparability and transparency among the companies. Including non-hedgeable risk shall require clear guidelines and these guidelines may not be applicable for all companies in all different regions. Q55) It is difficult to reflect the diversification benefit as the counterparty is unknown.
Swiss Financial Market Supervisory Authority (FINMA)	Switzerland	IAIS Member	No	Yes	Based on Section 4.3.4 ("theoretical rationale for PMOCE"), some questions about the rationale for the PMOCE as it is currently specified remain. According to paragraph 208, it is intended to reflect the risks/uncertainty of the reserve and premium estimates. But it is not obvious that the specifications fulfil this requirement optimally. For example, the difference between undiscounted and discounted claims reserves is to us not obviously a good proxy for the risk. Similarly, the unearned premium may partially reflect not the IAIG's own assessment of the risk but the amount of profit possible under actual market conditions, which tend to fluctuate over time with the market rate/underwriting cycle. On a more basic level, it is not clear to us from the theoretical rationale which risk the PMOCE is intended to cover (e.g. one-year or ultimate time horizon) and how that relates to the risk that is intended to be covered by the ICS capital requirement. Paragraph 211 appears to comment on this but is not unambiguously clear to us. For example, it could be interpreted to say that the PMOCE as it is currently specified together with the ICS capital requirement ensures a target level of protection without double counting. It is unclear to us if this interpretation is correct and, if so, what the corresponding target level of protection is and why it is ensured without double counting.

National Association of Insurance Commissioners	USA	IAIS Member	No	Yes	
Ageas	Belgium	Other	No	No	
ABIR Association of Bermuda Insurers & Reinsurers	BERMUDA	Other	No	Yes	We do not support the P-MOCE approach for non-life insurance liabilities. In particular, the linkage of the P-MOCE to the level of implicit profit in premiums links prudency to the underwriting cycle in a pro cyclical way which is contrary to regulatory objectives. P-MOCE applied to GAAP-Plus for US GAAP filers would be zero in most cases (since this basis already uses UPR and undiscounted reserves) and so does not have a useful interpretation. P-MOCE does have a purpose in European IFRS version of GAAP-Plus and will be materially non-zero. We therefore highlight that P-MOCE can vary significantly in magnitude depending on the underlying valuation basis selected, at least until the most significant of the valuation differences are reduced.
Ping An Insurance (Group) Company of China Ltd.	China	Other	No	Yes	The main considerations of merger and acquisition in insurance industry of developing countries are the market shares of the distribution channels and business growth potential of the target, and cost of capital is relatively a less important factor. Therefore, in our opinion, all transfer value MOCE methods based on cost of capital are more suitable for mature market with relatively low growth rate. As for developing countries where insurance market and premium volumes grow rapidly, there is no sound theoretical basis and supporting data for this method. Therefore, we are more supportive of Prudence MOCE method. Additionally, the results of T-MOCE are high for life insurance based on the current calculation method. This is primarily because the terms of our policies are relatively long and the current risk free rate is relatively low.

					We do not fully understand the theoretical basis of using 5% as cost of capital rate and risk-free rate in developing countries. We suggest even if T-MOCE method will be adopted eventually a cap should be applied to this T-MOCE (for instance, the reserves + T-MOCE should be no higher than the 75th percentile of reserves).
AMICE, Association of Mutuals and CooperativesinEurope/ICMIF,International Cooperative and Mutual Insurance Federation.	Europe	Other	No	Yes	We question the very concept of the MOCE. We feel there is a double counting with the ICS itself. The ICS amount is more than sufficient to cover the MOCE and is available in case of need. Indeed roughly one third of the ICS is enough to cover the MOCE. Hence, if the solvency situation of the group was to start to deteriorate there would be time to take action. Moreover the concept of a CoC MOCE does not appear in line with ICP 14.7.1 where technical provisions are defined as a fulfilment value and the MOCE a buffer for uncertainty. The ICS is there to assess uncertainty up to a 99.5% quantile. Indeed, the IAIS should be clear on the objective of the MOCE. From the consultation, it is unclear what goal is to be achieved by the MOCE. This directly relates to the manner in which the current estimate is calculated. There is an inter-relationship between the MOCE and the capital requirements. In our view the capital requirement should account for the uncertainties in the outcomes. Moreover, the MOCE defined as a cost of capital is based on the concept of “transfer value”. Transfer value implies that an insurance contract is “sold/transferred’ to a willing third party rather than being fulfilled by the insurer itself. This is a fundamentally different approach. The current estimate seems to indicate that the insurer itself will settle the insurance liability. By mixing the two concepts different and onerous calculations are needed.
Insurance Europe	Europe	Other	No	Yes	Please refer to our answer to question 60.

Institut des Actuaires	France	Other	No	Yes	It is potentially confusing to have to margins over current estimates when one is clearly prudence related and one is clearly cost of capital related.
GDV - Gesamtverband der Deutschen Versicherungswirtschaft	Germany	Other	No	Yes	Generally, we do not believe that a MOCE is necessary for the ICS. The concept of a MOCE to reflect the transfer value of the liability portfolio is a microprudential tool and not needed to generate comparable global outcomes. If nevertheless a MOCE is regarded necessary a Cost of Capital approach is more reasonable than the P-MOCE approach.
German Association of Actuaries (DAV)	Germany	Other	No	Yes	In general we prefer a CoC-approach rather than the P-MOCE. We believe the CoC approach leads to better comparability.
Munich Re	Germany	Other	No	No	
AIA Group	Hong Kong	Other	No	Yes	Our basic view is that MOCE should not be part of the liability, but that COC MOCE can serve as an MCR.
International Actuarial Association	International	Other	No	Yes	Some of the points raised here will not be resolved in ICS 1.0, but will certainly need to be resolved in 2.0 with the advantage of further field testing. The IAA has long supported the concept that an insurer should maintain sufficient capital in addition to its current estimate obligations to provide for a one-year shock at a high confidence level as well as additional funds post shock to allow the business of a failing insurer to be passed along to a succeeding insurer (i.e., see "Global Framework for Insurer Solvency Assessment", IAA 2004, paragraphs 2.16-2.18). Translating that concept into a workable valuation framework, however, has to be done in a manner consistent with the underlying assumptions and purpose of the valuation framework. The CD has been very helpful in identifying and

					working through these issues. We share our progress on this in these next two thematic sections: CoC MOCE vs. P MOCE 1. The CoC MOCE requires that after a (1 in 200 say) event there will be sufficient assets to cover on a going concern Current Estimates plus a Margin in order to enable the company to recapitalize and pass the liabilities to a third party. The Prudence MOCE suggests that after an event there will still be sufficient assets to run off the current estimate liabilities and so there will be enough assets to cover the CE but not necessarily the regulatory/transfer margin. The CoC MOCE thus has two loss absorbing layers, whereas the P MOCE has one layer which can be thought of as a margin which (together with capital) is targeting, say, a 99.5 one year VaR. The more margin there is, the lesser the capital requirement and vice versa. 2. Thus, an alternative framework could be built for a P MOCE since all risk margins run off. They may seem stable over time, but only because any amortization of the beginning margin is replaced by the establishment of a new margin on new business. The runoff does create profit and that profit embedded in a beginning balance sheet is not connected to an initial conservatism or margin established for new business that may or may not exist. Under this approach, it is invalid to tie the two of them together. Thus, one would not have to set up a Deferred tax item for a risk margin, but could/should treat it as expected profit in a cash flow projection. There is no cash flow resulting from risk margin runoff other than the income tax liability. Here, if the runoff of margin is not used to cover adverse insurance liability development then it is readily available to cover other bad news. 3. While the P-MOCE is intended to be a simple calculation-based alternative, there are many details based on different lines and practices by company and region (e.g., differing timing recognition of expenses for lines of business such as Boiler and Machinery versus Personal Auto) that could cause unintended variation by company, and thus potentially

					render this method less reliable in practice for some general insurance products. CoC MOCE Discussion The IAA also recognizes the need for the valuation of insurance obligations for supervisory purposes to include a MOCE in addition to the current estimate. While the IAIS has formed a view on its needs for a MOCE as part of a solvency framework, we also note that the IASB is developing through IFRS 17 its own views on a "MOCE" for public reporting purposes. The focus of IAA comments on the CD is primarily on the soundness of the composite of the ICS MOCE and capital requirements, taken together (i.e., total balance sheet focus), rather than on the "correctness" of the MOCE by itself. We have focused our assessment of the MOCE based on a "pre-tax" ICS framework. There are many difficult complications that impact the MOCE it the ICS desires an after tax framework that will need careful attention (There is also an interaction between this discussion and the approaches to calibrating the capital charge itself. Ignoring a tax adjustment for capital is consistent with, for example, a calibration using VAR measure versus current estimate, then subtracting an estimate of average MOCE. If, however, the capital calculation is an amount on top of MOCE, then it seems to make more sense to give the IAIG the benefit of a tax offset to the MOCE. The issue with taxes is that a release of a risk margin is a profit item and hence taxable – in principle. However, tax rules differ all over the world and even with an ICS, jurisdictions will differ on what they allow or do not allow in their insurance provision requirements for tax purposes.). Several of the CD questions seem to seek concurrence that the MOCE not include provision for market and credit risks along with a presumption that discounting at risk free rates helps to achieve a "correct" answer.

					With respect to market risk, the IAA notes that some insurance markets (e.g. for some North American life insurance products) can be exposed toc obligations much longer than the assets held and/or are available. This exposure to future reinvestment risk (absent its presence in the MOCE) could be provided for in a capital requirement for interest rate risk at a specified confidence level. If some level of mismatch or ALM risk is to be provided for via a MOCE derived (in part) from the use of conservatism in the valuation discount rate, then the composite provision, including the ICS capital requirement would need appropriate calibration. As noted elsewhere in this IAA response, the CD does not adequately deal with the distinctive issues surrounding par products with material dividends. The ICS needs to clarify how the valuation (and MOCE) of par products is to be handled given that these products are adjustable. The IAA commends the work done in Canada by OSFI in conjunction with its industry on this topic as part of its new life insurance capital requirements (LICAT). Another source of material market risk are products which contain substantive market options available to the policyholder. Examples of these options are settlement option guarantees and those present in variable annuities with equity guarantees. The "in the money" position of such guarantees can become solvency threatening if not properly priced, designed and hedged. The fact that most hedging instruments are short term contracts and the underlying risks can be long term and non-diversifiable adds additional complexity to the issue. If no provision for this risk is provided in the MOCE then the capital requirement must be calibrated appropriately. Under IFRS the "risk margin" or MOCE is a provision for insurance risks only, not investment risks. Obviously a MOCE for investment risks needs to be provided somewhere, and it is important to understand where it arises in any valuation framework. In both IFRS and ICS, the MOCE for

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

					regulatory calibration here. IFRS allows a top-down method to arrive at the discount rate. The top-down spread is to be based on the characteristics of the contracts. Contracts that are participating and pass some investment risk to the policyholder through participation can use a smaller deduction because the company retains less risk, and this means a higher discount rate. On the other hand, one might argue that all contracts should use a discount rate consistent with no participation. In this case, valuation can still be appropriate if the projected dividends or other participation credits are reduced from the actually anticipated level to a level consistent with the level of the discount rate. The top-down discount rate spread has the same effect on liability valuation as an additional cash flow equal to the cost of capital for investment risks. The cost of capital is a long-term assumption for the remaining life of the contracts, and should not change any more often than other long-term assumptions. In particular, changing the assumption on each valuation date based on current market spreads is similar to changing a mortality assumption on every valuation date to be equal to mortality experience for the most recent single period. This is simply not appropriate, and no one is arguing for doing so in the case of mortality. The argument for stability in the top-down discount rate spread is the same. The ICS approach of basing the spread on the current market on the valuation date adds inappropriate volatility to the valuation of net worth (assets less liabilities) because it amounts to changing a long term assumption on every valuation date based on current observations that no one expects to remain constant or stable over the long term. Since the top-down discount rate spread is mathematically equivalent to a cost-of-capital MOCE for investment risks, it is reasonable to calibrate it based on the cost-of-capital for such risks in the context of insurance companies. This is the scientific approach – base the assumption on

					observation rather than on a theory that is not supported by observation. Those that argue for a “risk-free” rate as the basis of the discount rate are arguing for a top-down spread much larger than would be supported by observation of the cost of capital. The top-down spread represents the cost of the risk to the insurer. That is less than the cost of the risk to an individual; otherwise there would be no financial logic for insurers, mutual funds, and other financial institutions to exist. Financial institutions exist because the value of risk to an individual is greater than the value of the risk to an institution that can combine risks and manage them in a way that reduces the total risk below the sum of the parts. This simple idea seems lost on those that have argued for a “risk-free” rate as the basis of the discount rate for valuation of financial institution liabilities. That is why Solvency II and other frameworks are being revised to allow for some recognition of this effect, under various terms such as a “matching adjustment” or a “liquidity adjustment”. The ICS framework needs to recognize this as well, and the IFRS framework already does so.
Dai-ichi Life Holdings, Inc.	Japan	Other	No	Yes	・The cost of capital method may be more useful to make investment decisions in company than the confidence level approach, because the cost of capital method is consistent with business practices of each company and is risk sensitive. On the other hand, there are many subjects which should be improved in currently proposed method, for example, cost of capital ratio, reflection of tax effect, Run-off pattern and so on. ・With respect to the Run-off pattern, it may be appropriate to use the amount which is exposed to risk as a standard instead of the cash out standard. Especially, the mortality risk of the life insurance with savings should use the amount which is exposed to risk as a standard, instead of run-off pattern of cash out because using run-off pattern of cash out is excessively conservative.

General Insurance Association of Japan	Japan	Other	No	Yes	If MOCE is to be introduced, we support CoC-MOCE. We have the following concerns over the proposed P-MOCE: - The relationship between P-MOCE's prescribed intention of "policyholder protection" and the calculation method is unclear; - P-MOCE, especially in the case of non-life, is over-reliant on each countries' accounting standards and interest rate levels, and also inconsistent with the concept of MAV and cannot deal with negative interest rates. Additionally, it cannot calculate the proper amount when the premium rate does not take into account margins as well as when the rate is set at a loss-making level. Construction of life and health P-MOCE is based on the quantile approach and is inconsistent with non-life. (The reason for inconsistent treatment between Life/Health and Non-life risks is said to be because "Non-life risk includes new business". However, consistency can be maintained by deducting the new business part from non-life risk (as in the case of CoC-MOCE).) On the other hand, we may need to reconsider our position for CoC-MOCE depending on the underlying assumption of the ICS; for example, in the case of acquisition, whether liability is the capital cost of the acquirer or the acquired.
The Life Insurance Association of Japan	Japan	Other	No	Yes	・Even assuming transfer of policies through market mechanism in policyholder protection, in Japan, a well-structured framework (to which Japanese insurers make contributions annually for its maintenance) ensures policyholder protection in the case of failure using approaches other than transfer of policies through market mechanism. The resolution procedure often includes debt waiver, therefore, MOCE is not necessary from the perspective of policyholder protection in such jurisdictions. The IAIS should require MOCE for each jurisdiction reflecting their own policyholder protection scheme. ・As for Question 51, we support the idea which regards all Interest Rate risk as hedgeable, and to exclude it from the risks to be projected. For the

					2015 Field Testing, Interest Rate risk was included within the risks to be projected considering all Interest Rate risk unhedgeable. However, this obviously did not properly reflect economic reality. We also support the approach under which hedgeable Interest Rate risk and unhedgeable Interest Rate risk do not have to be separated. ・It may be more appropriate to apply the run-off pattern in the projected capital requirement based not on the outgoing cash flows, but on the amount on which the risk is posed.
Great Eastern Holdings Ltd	Singapore	Other	No	No	
Swiss Association of Actuaries	Switzerland	Other	No	Yes	We would like to emphasize a number of points regarding the CC MOCE: It is not a choice, but an essential component of market consistent technical provisions. The market consistent value is essentially the expected cost to produce the insurance liability cash flows using financial instruments that are traded in a deep, liquid and transparent market. Since there is a component of the insurance liability cash flow that cannot be produced with financial instruments, an insurer has to hold capital to buffer these non-producable (or non-hedgeable) risk. Holding capital is a cost which is captured in the CC MOCE. By the above argument, the CC MOCE is not related to any transfer value methodology, but only to the cost of the insurer itself. No assumptions on potential diversification with a hypothetical third party taking over the liabilities are necessary. The P MOCE is not a valid approach to use in a market consistent valuation framework Not using a CC MOCE leads to insurer being under-reserved. We are

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					surprised to hear arguments (even from some supervisory authorities) that the CC MOCE is an element of conservatism and could be removed.
Swiss Re	Switzerland	Other	No	No	
Aegon NV	The Netherlands	Other	No	Yes	Aegon doubts that there is an economic rationale for a MOCE to be applied if the current estimate is properly defined.
American International Group (AIG)	U.S.	Other	No	Yes	Under the currently proposed (and still evolving) ICS valuation basis, the MOCE could exacerbate capital volatility in unwarranted ways, especially under a low and/or negative interest rate environment. Until the potential impact of MOCE is more fully understood, we strongly encourage the IAIS to proceed with caution by not incorporating MOCE within ICS 1.0.
Association of British Insurers	United Kingdom	Other	No	Yes	While the IAIS has articulated its own theoretical rationale for a cost of capital MOCE and prudence MOCE, it has not yet articulated how this links to the objectives of the ICS as a group consolidated capital measure or the ICS principles. It appears to result in the double counting of risk and is consequently equivalent to calibrating the ICS above the 99.5% level. In addition the CoC MOCE, as currently calibrated, will result in an inappropriate treatment of long-term life business such as UK annuities. This would be detrimental to policyholders' best interests because it would adversely impact annuity rates and dis-incentivise direct insurers from retaining longevity risk. It would also create undue sensitivity to interest rates, which have no bearing on the IAIGs' ability to meet policyholder obligations. If the IAIS insists on using the CoC approach, the cost of capital rate should be a function of interest rates. The inappropriateness of the CoC MOCE approach for long-term life business and the undue sensitivity to

					interest rates for products such as annuities has been identified as an issue in the UK following the implementation of Solvency II. In the absence of adequate justification of the requirement for a MOCE, we would recommend that it is removed. We consider that for the ICS, balance sheet valuations should be based on best estimate assumptions of the IAIG's future liability cash flows, and consequently should not include a MOCE, with any potential unexpected losses covered by capital requirements. This is the approach that UK regulators adopted prior to the introduction of Solvency II under their ICA regime, which proved to be a robust and resilient regime during the financial crisis.
MetLife	United States	Other	No	Yes	We do not believe that a MOCE should be incorporated into the ICS capital requirements. Including a MOCE is inconsistent with using best estimate liabilities. Any margin designed to capture the inherent uncertainty in insurance liabilities should be considered as part of the required capital calculation. By including a MOCE the actual amount of capital available is less clear than without the MOCE. Also, while current U.S. GAAP accounting includes margins for adverse deviations for certain products as part of their deliberations the Financial Accounting Standards Board have recognized that this margin does not provide an accurate reflection of the best estimate of the liabilities and are considering removing such margins as part of their targeted improvement project. As regards the prudence MOCE, as the overall capital requirement is already targeting a 99.5th percentile (and 2016 required capital shocks already exceed 99.5th percentile) adding a prudence MOCE is not necessary. The 99.5th percentile is sufficient to cover fluctuations in the

					market adjusted balance sheet. If the IAIS decides to adopt the cost of capital MOCE, the calculation should be adjusted to remove additional hedgeable and controllable risks and adjusted for taxes. Currently the interest rate, a component of credit risk and expense risk are included in the projection of capital. These risks are hedgeable or controllable by management and therefore they should not be included in the projected capital calculation. We also do not believe that the MOCE should be calculated on a pre-tax basis. There should be recognition of taxes in the transfer MOCE calculation. By including hedgeable and controllable risks and ignoring the impact of taxes, the transfer MOCE is higher than it should be. If the decision is made to include a prudence MOCE then it should be based only on the portion of insurance risk that is not controllable by management. Currently expense risk is incorporated as part of insurance risk. Expenses are controllable by management and therefore they should be excluded from the insurance risk that is included in the Prudence MOCE. In addition to removing the expense risk from the insurance risk component, all of the market and credit risks should be considered hedgeable and should not be included in the Prudence MOCE calculation. This includes interest rate risk and credit risk on reinsurers which are both currently but inappropriately included in the transfer value MOCE
National Association of Mutual Insurance Companies	United States	Other	No	Yes	The MOCE for non-life insurance groups is unneeded and should be eliminated. This concept was rejected by the FASB for non-life insurers so it will be irreconcilable with the financial accounting system in the U.S. In addition, the MOCE creates an unnecessary level of complexity that could well result in inconsistent application of the formula. This will not serve the companies, the policyholders, the investors or the regulators well.

RAA	United States and many other jurisdicitons	Other	No	Yes	We are concerned that the margin for prudence duplicates the allowance for uncertainty built in to the risk factors in section 6 of the ICS standard. The Consultation should make clear that P-MOCE applied to GAAP Plus filers (for US GAAP) would be zero to the extent that insurance reserves are undiscounted. This can be interpreted from the Technical Specifications for field testing, but should be made clear in the main Consultation document.
American Academy of Actuaries	United States of America	Other	No	Yes	A MOCE provision is unnecessary in an appropriately designed and calibrated capital framework. The purpose of the ICS should be to provide a meaningful and transparent measure of solvency to regulators and other stakeholders. A MOCE provision without recognition of its loss absorption capacity, or its redundancy with required capital, will result in misleading and incorrect measures of solvency.
Prudential Financial, Inc.	United States of America	Other	No	Yes	Prudential considers a MOCE unnecessary in an appropriately designed and calibrated capital framework. Uncertainty with liability cash flows – beyond that already captured in the current estimate liability – should be captured in required capital. Further, we disagree with the IAIS' position that the MOCE is not double counting risk by reducing available capital for a MOCE and not adjusting required capital. + The ICS available capital should recognize the full loss absorption capacity of an insurer's balance sheet. This is achieved through current estimate valuation of insurance liabilities. A MOCE provision for risk, if included, must be appropriately designed and calibrated so as to avoid artificially deflating the measure of an insurer's loss absorption capacity. + The IAIS claims that required capital is a one-year provision and MOCE is a provision (for either the cost of holding capital or prudence) for all future years. However – as described in our responses to questions 49 through 66 – with respect to the capital requirements time horizon, the

					presence of MOCE results in the double counting of risks which emerge over the life of liabilities. MOCE also amplifies the issues with valuation and capital requirements, especially for long term liabilities. + CC-MOCE Rationale 2 draws on the idea of having to meet a cost of capital to fund a recapitalization. It is fundamentally flawed to confuse the return required on capital from investors with solvency. Cost of capital is primarily a profitability concern, CC-MOCE's design is largely tied to Embedded Value and Internal Rate of Return concepts, which starkly contrasts with the ICS's intended purpose of ensuring solvency. If the ICS wants to ensure multi-year solvency it should develop a MOCE construct that focuses on ensuring future available capital resources exceed future required capital. + Furthermore, CC-MOCE Rationale 2 describes a situation in which insurers will be unable to support future Credit and Market risk because MOCE only includes non-hedgeable risk. This is the basis for discounting CC-MOCE at risk-free rates, which we consider fundamentally flawed. Insurers have various and readily available capital management tools at their disposal to adjust their risk profile. Given that the US insurance business model is heavily dependent on the use of corporate bonds and other credit risk bearing asset classes to meet our cost of capital, it is more realistic to assume that an insurers' risk profile will be adjusted to allow for appropriate credit and market risk than assuming an insurer will only be able to invest in risk-free assets. + CC-MOCE Rationale 3 draws upon the idea that we should hold all costs associated with required capital over the life of the enterprise on our current Balance Sheet. Although we take issue with 1) the conflation of capital frameworks and liquidity frameworks and 2) confusing profitability concerns with solvency concerns, the current CC-MOCE is fundamentally flawed because it assumes we are only going to generate a risk-free return on our capital. The available capital supporting our required capital

					demands that we meet the Return on Equity (ROE) we communicate to our external stakeholders, or at a minimum the Weighted Average Cost of Capital towards which we internally manage. As such, available capital will grow at a rate between our ROE and WACC. If we assumed we were only able to generate a risk-free return on this capital, as assumed by the current CC-MOCE design, we wouldn't be in the insurance business. CC-MOCE as currently designed and allegedly supported by Rationale 3 could result in exactly this situation, declaring well-funded companies insolvent because the IAIS assumes they are unable to generate returns in excess of their cost of capital. This rationale is fundamentally opposed to the economics of insurance. + In order to properly design and calibrate MOCE while addressing the concerns in the aforementioned ICS Consultation Document's CC-MOCE and P-MOCE rationales, we believe the following items should be addressed to properly construct MOCE. -- As previously mentioned, the IAIS claims the ICS is designed for a one-year stress event at a 99.5 calibration. If the ICS stresses were to be modified into a multi-year stress for non-hedgeable risk, what adjustments to the stresses would be necessary? As previously mentioned many of the non-hedgeable risks cover future periods, so the current time horizon is already all inclusive. If the only remaining adjustment to be made to these stresses to arrive at a multi-year outlook is calibration, given that many of our comments focus on decreasing stresses to arrive at appropriate calibration, then the current ICS is already conservative for a multi-year timeframe. This would imply that MOCE is not needed to ensure the ICS covers a multi-year time horizon. -- MOCE assumes that risk composition remains constant over future periods and runs-off following the same pattern as the liabilities. While we recognize the need for a design that is simple enough for the global insurance industry to implement uniformly, we believe that both CC-MOCE and P-MOCE's current designs are too simplistic. Future risk amounts should be determined by applying appropriately calibrated

					margins to the underlying assumptions used to determine the current estimate, which eliminates the need to simplify future risk composition assumptions and inherently runs-off MOCE as the risk profile of the insurer runs-off. This approach would also allow for a clear division between conservatism incorporated into available capital for liability cash-flow uncertainty and required capital. + Finally, MOCE inappropriately understates the current period ICS ratio because it does not take into consideration growth of future available capital. While an insurance company will need to hold required capital in future periods for the risks on its Balance Sheet at that future point in time, that future required capital will be funded by future available capital. Unless MOCE appropriately incorporates anticipated growth in available capital, for example by discounting MOCE by an insurer's WACC instead of a risk-free rate, it has the potential to make an insurer insolvent despite the possibility that it will be able to fund future required capital from growth in available capital.
Liberty Mutual Insurance Group	USA	Other	No	Yes	The IAIS should not attempt to develop a consistent and comparable MOCE, because it is fundamentally irreconcilable with the financial accounting system used to set U.S. property casualty insurance reserves. Use of a MOCE has been fully vetted by the FASB and has been rejected. Furthermore, the introduction of MOCE is needlessly complex, introduces the risk of inaccuracies to capital assessments, and does nothing to eliminate inconsistencies between companies.
MassMutual Financial Group	USA	Other	No	No	

Property Casualty Insurers Association of America (PCI)	USA	Other	No	Yes	PCI opposes use of a CoC (cost-of-capital) MOCE for GAAP Plus. The concept is inconsistent with the use of undiscounted claims liabilities. There is no need for any MOCE under the GAAP Plus concept.

End of Section 4.3