

5.2 MOCE

Q39 Section 5.2 Is the treatment of Premium and Catastrophe risk in C-MOCE appropriate? If “no”, please provide justification and specific recommendations.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	Whilst the approach used is a simplification, the treatment of Premium and Catastrophe risk is reasonable given other approximations in the methodology. There is room to refine and improve the C-MOCE but any change to the approach needs to balance improved accuracy with the additional complexity of the calculation.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	We appreciate the intention to limit the risks captured in the C-MOCE to those risks that relate to the business inforce (which is the basis for the determination of a transfer value). Whilst the approaches that are suggested for premium and catastrophe risk are a simplification, those seem to be reasonable considering also other approximations in the methodology. There is, however, room to refine and improve the C-MOCE but any change to the approach needs to balance improved accuracy with the additional complexity of the calculation.
Global Federation of Insurance Associations	Global	No	No	In the event that a CoC-MOCE is implemented, non-hedgeable risks should be reflected in it.
International Actuarial Association	International	No	No	We think that the C-MOCE should only reflect risks on non-life policies that are recognized on the balance sheet. This implies that much of the “full risk charge” for catastrophe risk should

				be excluded from the C-MOCE as much of this risk is due to future policies that are not yet recognized. For premium risk, it is not clear what adjustment is being proposed. None is mentioned in the Technical Specifications. If there is to be a C-MOCE relating to non-life premium risk and catastrophe risk, they should be reported separately from the C-MOCE on claims liabilities. This would allow for easier comparison to cost-of-capital margins calculated in other contexts including the 'Premium Allocation Approach' under IFRS 17.
Dai-ichi Life Holdings, Inc.	Japan	No	No	The principles should be consistent, and the non-hedgeable risk should be reflected in the C-MOCE.
General Insurance Association of Japan	Japan	No	No	No. With regard Catastrophe risk, Technical Specifications require calculation of the cost of capital based on the assumption that the required capital at the reference date needs to be maintained for a year. However, the cost of capital should be adjusted using as a proxy 50% of risk charge pre-diversification because the MOCE should be calculated based on the policies in-force.
The Life Insurance Association of Japan	Japan	No	No	The principles should be consistent, and the risks which are impossible to hedge should be reflected in the C-MOCE.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	No	We do not see any rationale for including allowance for business that is not currently on the balance sheet – this appears to be an overly penal assumption that is not in line with the business in the scope of the current estimate or the required capital. If an IAIG cannot take credit for expected profits on business to be written (some of which would be expected to cover the risk charge for premium and catastrophe risks) then it is not appropriate to require an additional liability to be set up on this business.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC does not support the adoption of any MOCE. The question of risk margins should be addressed by individual jurisdictions considering the level of conservatism built into the

				valuation and other reporting systems as well as ladders of intervention utilized to recognize troubled insurance groups. See also response to Q.
RAA	United States and many other jurisdictions	No	No	See response to Q47.
Property Casualty Insurers Association of America (PCI)	USA	No	No	No. Premium and catastrophe risk are mainly driven by future policies that are not included in the current estimate. It is inappropriate to include them in a margin over current estimate.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	No. Premium and catastrophe risk are mainly driven by future policies that are not included in the current estimate. It is inappropriate to include them in a margin over the current estimate.

Q40 Section 5.2 Are there any modifications or simplifications to the methodology for the C-MOCE that would make it more appropriate for the intended purpose? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	The value of a C-MOCE is that it sets aside sufficient funds (current estimate liabilities plus C-MOCE) that the company can be taken over by another company that can supply the required capital and still earn a market return on capital. This is an admirable aim if the regulator in a jurisdiction wishes the problem company to continue to operate as a going concern. However, this is not the role of a required minimum capital calculation, which is to give an indication of a company's ability to withstand severe adversities so as to protect policyholder guarantees. Ensuring continuation of a going concern is not a function of the ICS as it is currently envisaged. If a supervisor wishes to ensure the continuation of its companies as

				going concerns, then that supervisor, in its jurisdiction, should require an explicit additional separate amount of required capital for that purpose. An exit value is the combination of the current estimate liabilities plus a C-MOCE. A fulfilment value is the combination of the current estimate liabilities plus a P-MOCE. While the risks covered by a P-MOCE are already included in the ICS required capital, the excess of C-MOCE over P-MOCE is not included in the ICS required capital. It represents additional funds that a purchaser of a company would require to set up the required capital needed for a going concern business plus a sufficient return on capital to the shareholders of the purchaser. A flaw with the use of a C-MOCE is that it could be taken to be a capital amount that would ensure that an entire IAIG company continues to operate as a going concern. However, in practice, given that an IAIG operates in numerous jurisdictions, it is not probable that a single company would take over the entire IAIG. This has been shown to be the case in actual past scenarios of IAIGs requiring financial assistance. Such rescues have taken place via purchases of individual subsidiaries in individual jurisdictions. This appears to be contrary to ICS Principle 1, which states that the ICS is a measure for a consolidated group as a whole, not as a collection of parts. In summary, we do not see the value of calculating a C-MOCE as a part of the ICS.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	Insurance Europe would like to provide the following general comments regarding the inclusion of a MOCE in the ICS: While Insurance Europe acknowledges the need to ensure an orderly transfer in case of failure, it doubts whether the MOCE is the appropriate way to achieve this. Insurance Europe believes the introduction of a MOCE could lead to potentially unfavourable consequences, eg impacting long-term business. Insurance Europe does not support the IAIS approach on the C-MOCE aimed at increasing the liabilities for all companies at all times. Instead, if it would be decided a MOCE is needed,

				it should be assessed against the existing capital requirements. A company should calculate its MOCE and its MCR; as long as the MCR is higher than MOCE, supervisors should be reassured that MOCE is available to support transfer in case of failure (and supervisory intervention at MCR). Care must be taken to avoid that the calibration of this margin leads to unreasonably high levels. Regarding calculation of a possible MOCE: Insurance Europe is concerned by the current design and calibration of the C-MOCE, which would in practice lead to unnecessarily high levels. The 5% cost of capital is too high (see further details below). Insurance Europe notes that the P-MOCE appears to require a simpler calculation approach. While it does not fully support the P-MOCE, Insurance Europe highlights the value of investigating more straightforward ways to calculate MOCE. Both C-MOCE and P-MOCE require further consideration. Comments with regard to the C-MOCE C-MOCE can be very large, due to the methodology and calibration As currently proposed, it impacts in particular long-term products and as such can have a significant impact on companies' provision and pricing of products as well as investment decisions. C-MOCE is overly sensitive to changes in risk-free rates, regardless of the level of CoC IAIS should check whether C-MOCE levels are reflecting a correct estimation of true transfer costs Any diversification benefits recognised in the determination of capital requirements should also be recognised in the MOCE. One advantage of the C-MOCE is that it is a consistent approach that it can be applied to all liabilities
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				Level of cost of capital The IAIS should provide justification for the 5% level of CoC. Insurance Europe believes that an appropriate level would be 3%. The Cost of Capital (CoC) is a key part of the calculation and calibration of the C-MOCE. Although it is a term used for other purposes (in general finance) It has as very specific meaning and definition for the C-MOCE and as such the CoC for the C-MOCE should not be confused with Costs of Capital used to assess general investments. The CoC in the context of the C-MOCE is defined as the return that an investor would to provide capital to support a run-off portfolio transferred from a failed insurer, but where the investment risk has been hedged – so this deviates from a real business because there is no new business risk, and no market risks. The C-MOCE, and the CoC used to calculate it, is only needed for the risks, specific to insurers, that cannot be hedged in the market – claims risk, operational risk etc.
German Insurance Association	Germany	No	Yes	We propose a cost of capital margin lower than 5%. We should recognize the low-beta nature of the margin requirements.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	We appreciate the approach suggested to calculate the C-MOCE based on future capital requirements. However, the determination of any future capital requirements is burdensome for undertakings. That said, the C-MOCE should allow for simplifications for estimating future capital requirements (e.g. based on a percentage of future technical provisions, or based on a percentage of the current capital requirement). These could be applied where they deliver a similar level of policyholder protection and continue to provide a reasonable approximation to transfer value of liabilities. In order to achieve these objectives, such approximation should be appropriately calibrated (having the C-MOCE level as a reference).
Global Federation of Insurance Associations	Global	No	Yes	IAIS needs to clearly articulate the role and purpose of the ICS at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. Currently, it is unclear whether the MOCE results in double counting of risk.
International Actuarial Association	International	No	Yes	Non-life Technical Clarifications include: 1. Policy claim liabilities often cannot be practically transferred in many jurisdictions, even if

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				the company itself has been sold to continue ongoing operations as a new entity.... 2. A sale of the entire entity holding these entities is possible, but in those situations the transfer price includes the franchise value and is not, as in C-MOCE, limited to the value of the runoff liabilities. Conceptually, the transfer price = Central liability estimate + Required Capital + Cost of Capital – Franchise Value. While franchise value is hard to value prospectively within a factor-based approach, it definitely impacts the observed transfer values and, we would argue, is an additional subjective consideration that should be folded into the overall supervisory framework. 3. For many jurisdictions, the underlying losses can be reinsured (albeit with exclusions, limits, etc.), but this is not a complete transfer. In addition, the more typical outcome has been for legacy liabilities to be taken over by a guaranty fund (where they exist) and any unearned premium to be returned to the policyholder. Life Product Technical Clarification (similar comments may also apply to long-tail non-life business): 1. For products with an investment risk component and non-guaranteed elements or dividends, such as with annuities and many life products, the cost of capital can be estimated on a real-world basis in the form of an interest rate spread, but it needs to be done so it is consistent with the discount rate and asset yields. This is currently not contemplated in ICS 2.0. For example, if the amount of capital held by the insurer for investment risks is 10% of the underlying portfolio and the cost of capital rate is 5%, then the cost of capital spread for investment risk is $10\% \times 5\% = 0.50\%$. To reflect this, one reduces the real-world yields on assets used for the discount rates for every time step in every scenario by 0.50%. That is an approach contemplated by IFRS 17 in adjusting the discount rate to reflect the risk characteristics of these kinds of insurance contracts.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	Regarding cost of capital, differences in risk premium required in each jurisdiction should be reflected. It is conceivable to add a fixed addition such as 100 bps based on the spread of the BBB used for ICS. It is necessary to reflect the tax effect on C-MOCE. If C-MOCE is recognised as a part of insurance liabilities, the tax effect should be recognised, because a difference arises between the insurance liability of tax accounting of each jurisdiction and that of the ICS.

General Insurance Association of Japan	Japan	No	Yes	Non-life insurers with significant long-term risks should be able to consider their long-term liabilities by using run-off patterns based on outgoing cashflow associated with the related insurance liabilities, as is the case with the life business. In order for projection patterns to reflect reality, we propose determining them based on data collected through the Data Collection exercise this year and last. The projection pattern provided includes a longer tail than what is actually observed in Japan, resulting in an excessive amount of MOCE.
The Life Insurance Association of Japan	Japan	No	Yes	- As for the cost of capital, it will better reflect the reality of market to add a certain spread to risk-free interest rates and to change the cost of capital in response to fluctuations in risk-free interest rates rather than to use a fixed rate. This is because entities considering the acquisition of insurance liabilities are considered to be based on risk-free interest rates when calculating the cost of assuming risk. The spread level added should not be uniform but reflect the difference in the required risk premium in each jurisdiction. It is conceivable to add a fixed addition such as 100 bps based on the spread of the BBB used for ICS. - It is necessary to reflect the tax effect on C-MOCE. If C-MOCE is recognised as a part of the assessment of insurance liabilities, the tax effect should be recognised as a matter of course, because new differences arise between the insurance liability of tax accounting of each jurisdiction and the insurance liability of the ICS.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Aegon NV	The Netherlands	No	Yes	We encourage the IAIS to provide a clear rationale for and purpose of the MOCE and a substantive demonstration that it does not result in a redundant provision for risk. We believe this will help in assessing the necessity of a MOCE, the design of any MOCE, and the interaction of the MOCE with capital requirements.
Legal & General	UK	No	Yes	We believe that the size of the C-MOCE is excessively high for predictable, well matched long-term insurance business. Our preference is that the MOCE as a concept is dropped entirely from ICS, but in the event that it remains a part of the basis a C-MOCE is, in our view, the least suitable of the options field tested to date.

				We have already had experience of a capital adequacy regime (Solvency II) which contains a disproportionately high Risk Margin element and it is very important that we do not recreate this flawed methodology within a second regulatory capital regime. The following are the key issues that we have with the cost of capital MOCE as currently specified: • We do not believe that there is a clear rationale for why an ICS balance sheet needs a MOCE, and if one is required we believe that the cost of capital MOCE should be deducted from capital requirements in the same way that the prudence MOCE is currently specified. This would keep the base balance sheet as a true best estimate of assets less liabilities and required capital as containing all allowance for potential variation from this in adverse circumstances. This would give a more meaningful coverage ratio and would assist with explaining the ICS balance sheet and capital adequacy assessment to potential users of the information. • We consider the variable cost of capital MOCE to be preferable to the fixed version, because of the reduction in sensitivity to changes in risk-free rates, but we believe that the cost of capital remains excessive. This view is backed up by work done by the CRO Forum over 2017 and 2018 in relation to similar issues on the Solvency II risk margin. • The correlation assumptions between life risks are higher than we believe is reasonable, and the assumption of no diversification between operational risk and other risks is not sensible. • The split of risks between those within the scope of MOCE and those not in the scope appears arbitrary, which relates to the wider issue that there does not appear to be a clear rationale for why a MOCE is required in the first place. Such a rationale would enable further justification of the methodology behind the MOCE to be debated more meaningfully. Assuming that the split of risks is informed by some consideration of whether a risk is avoidable or not, the current specification makes no allowance for the fact that some life risks are more avoidable than others due to the relative maturity of certain reinsurance markets (in particular the UK longevity reinsurance market is now considered by us to be relatively deep and liquid). • There is also no allowance for the fact that for certain risks, stress events are unlikely to be
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				repeatable over a short period – for example a significant increase to life expectancy is highly unlikely to be closely following by an additional significant increase to life expectancy due to the long-term nature of the risk (for example, you can only cure any disease once). As well as concerns about the magnitude of the MOCE we also think that the C-MOCE fails on some of the other criteria that should be aspirations for the final formulation, for the following reasons: • The fixed C-MOCE as currently specified will be highly sensitive to changes to discount rates as it is effectively “double-discounted” and so available capital is likely to be very volatile over time depending on what has happened to interest rates. The variable cost of capital removes some but not all of this sensitivity. It would be very difficult to match such a volatile liability, particularly given that IAIGs will be managing multiple metrics. There is no clear rationale for such sensitivity as changes to risk-free rates would not usually be seen as causing fundamental changes in the financial stability of a company writing long-term liabilities with close matching between assets and liabilities. • The calculation of C-MOCE is relatively complex and requires significant additional data around the run-off of risks. This complexity would make it significantly harder to explain C-MOCE to non-technical audiences. We have found this to be the case with the Risk Margin under Solvency II. We suggest that the “Risk Adjustment” from the mooted new IFRS17 basis could be used to inform the direction of travel for MOCE as we consider this to be a more intuitive and proportionate calculation. The MOCE is a highly material and critical issue for us, particularly given our negative experience of the risk margin within Solvency II.
Association of British Insurers	United Kingdom	No	Yes	IAIS needs to clearly articulate the role and purpose of the ICS at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. Currently, it is unclear whether the MOCE results in double counting of risk.

National Association of Mutual Insurance Companies	United States	No	No	NAMIC does not support the adoption of any MOCE. The question of risk margins should be addressed by individual jurisdictions considering the level of conservatism built into the valuation and other reporting systems as well as ladders of intervention utilized to recognize troubled insurance groups. See also response to 1 and 39.
RAA	United States and many other jurisdictions	No	Yes	See response to Q47.
American Academy of Actuaries	United States of America	No	Yes	Margins (C-MOCE) have more uncertainty than the underlying central estimates so we think it important to have as much reliability as possible as to the underlying central estimates. This means having them be part of an audited set of financial statements. Unless the IAIS is able to mandate the use of one set of audited financial statements, we suggest there would be more value gained by assessing the margins for life products through the use of recovery testing and/or cash flow testing than is already being done to meet other financial reporting requirements. This becomes especially valuable for assessing the degree of margins provided through product features such as dividends and non-guaranteed elements. With this estimate of the relative size of the margins, additional consideration can be given to the various recovery and resolution elements and options that will depend on the specific jurisdictions in which these companies operate.
Prudential Financial, Inc.	United States of America	No	Yes	The inclusion of a MOCE double counts risks by reducing available capital for risks associated with the uncertainty of liability cash flows which are already captured in required capital. We therefore believe that including a MOCE in the ICS is inappropriate and unnecessary; the entire pool of tangible assets backing margins in reserves that are released when moving from GAAP/statutory reporting to a current estimate of insurance liabilities should be recognized as loss absorbing available capital resources. In addition to our overarching view, we note the following points regarding the CoC-MOCE: + The field test specifications were ambiguous to certain aspects of the MOCE run-off pattern calculation, which could have significant impact on the value of MOCE.

				+ MOCE is only assessed on unhedgeable risks, which are generally mortality/longevity and lapse risk, which insurers generally have credible experience for and are subject to strong risk management practices – especially in the case of IAIGs. + The MOCE is significantly over-calibrated. This is particularly the case for C-MOCE where it results in values that are very close to required capital levels for long duration contracts. Please see our response to question 47 for further information.
MetLife, Inc	USA	No	Yes	See our response to Q 44 below.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	In the context of the ICS, MOCE is an overly academic and theoretical construct that has, with the passage of time and with much debate and field testing, been shown to be impractical to resolve and implement. Indeed, now the IAIS is considering a MOCE, but possibly deducting it from capital requirements, a notion that simply begs, “what’s the point”? It is inherently flawed in that it is premised on insurance contracts being readily tradeable, double-counts capital requirements, is excessively calibrated and, most importantly, is unnecessary. Despite ICP 14 indicating that the valuation of assets and liabilities for solvency purposes includes a MOCE, the ICS exercise is not about creating a balance sheet for that purpose per se, rather to develop a construct to evaluate capital requirements based on appropriate data for risk exposures and risk sensitivity. There are numerous other areas within the ICS where its framers have adjusted reported balance sheet data or simply looked elsewhere for exposures upon which to determine capital requirements. Thus, we do not believe ICP 14 locks the IAIS into an ICS construct that requires a MOCE. In lieu of a MOCE, a much simpler and sounder approach is to measure insurance liabilities appropriately in the first place. For non-life business, we support the approach in the U.S. which largely relies on deterministic reserving approaches on an undiscounted basis. There are clear advantages to that approach: there is an inherent margin in the sense that discounting is not applied; the results are easily back-tested with subsequent development by accident or report year clearly determinable and transparently reported to regulators and the public; and there is no double-counting by conflating capital requirements from conflicting

				constructs. In addition, a total balance sheet approach (which the ICS reportedly follows) focuses on the total assets required given the risk. Should, for whatever reason, the IAIS decide to include a MOCE, it should be reported as a deduction from capital requirements. Under a total balance sheet approach (which the ICS reportedly follows), the dividing line between liabilities and equity is largely irrelevant, what matters is the total assets required given the risk. Work done to determine the MOCE only influences this arbitrary dividing line, not the total asset requirement. Therefore, the ICS should be constructed in a manner that depends on this arbitrary dividing line to be reliably calculated. The best way to avoid that problem is by deducting any MOCE that is calculated under the ICS from the overall capital requirement.
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Q41 Section 5.2 Is the current design of the non-life P-MOCE consistent with ICP 14.9? Please explain.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	The current P-MOCE approach for non-life business is different from the one which is employed by the life business. As the current estimate under certain confidence level is also commonly used as risk margins for non-life business in some markets, we suggest consider such approach for non-life business, so that the P-MOCE concept can be consistent between the life and non-life business.
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	The current non-Life P-MOCE approach is not a measure of risk or uncertainty and therefore is not consistent with ICP 14.9. It delivers the same level of MOCE regardless of the risk profile of the underlying liabilities and instead is dependent on the duration of the liability and the assumed profit margin. The P-MOCE should reflect the variability of the cashflows or another metric which provide a direct link to the uncertainty of the cashflows. This is somewhat achieved for life risks but not for non-life risks in the P-MOCE.

				With regard to the Non-life P-MOCE, our view is that the proposed methodology does not satisfy some of the key appropriateness conditions outlined in the ICPs. By restricting the MOCE to a valuation adjustment which fundamentally transforms discounted Current Estimates back to undiscounted figures or aligns them with accounting assumptions, it ignores the uncertainty underlying the cash flows which constitute the Current Estimate. In extreme cases, such as some GAAP with Adjustments specifications, where Non-life Current Estimates for claims liabilities are already undiscounted, the P-MOCE will simply be zero. But, even where such liabilities are discounted, the simplistic assumption which is made, that uncertainty is reflected in the duration of liability cash flows, will lead to inconsistent results. In practice, it is easily possible to find examples of liabilities which have similar Current Estimates, but for which the degree of uncertainty is quite different. This is reflected in differing levels of ICS capital requirements. For such liabilities, the P-MOCE approach would deliver exactly the same result, disregarding the element of uncertainty which it is expected to be captured in the first place. Concerning Non-life premium liabilities, similarly the P-MOCE concept relies on a valuation adjustment, to convert insurance liabilities from their Current Estimate value to a simplistic assumption of 100% combined ratio. This means that, where this is already the assumption underlying the Current Estimate calculation, the MOCE also equals zero. In a more extreme situation, where the insurer has projected a loss-making business by using a combined ratio above 100%, the P-MOCE would result in a negative figure, unless artificially capped (to zero). For these reasons, our view is that the P-MOCE methodology does not constitute a suitable approach to the calculation of MOCE in the ICS. In the case of Non-life components, it consists of "MAV-to-GAAP" valuation adjustments that fail to deliver on key conceptual elements of the MOCE definition. It is also unclear how such MOCE would operate under valuation bases that are already based on GAAP assumptions, as is the case for some GAAP with Adjustments specifications, as there are no valuation adjustments to be made, possibly leading to a MOCE equal to zero for the total business.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The current non-Life P-MOCE approach is not a measure of risk or uncertainty and therefore is not consistent with ICP 14.9. It delivers the same level of MOCE regardless of the risk profile of the underlying liabilities and instead is dependent on the duration of the liability and the assumed profit margin. The P-MOCE should reflect the variability of the cashflows or

				another metric which provide a direct link to the uncertainty of the cashflows. This is somewhat achieved for life risks but not for non-life risks in the P-MOCE. With regard to the Non-life P-MOCE, our view is that the proposed methodology does not satisfy some of the key appropriateness conditions outlined in the ICPs. By restricting the MOCE to a valuation adjustment which fundamentally transforms discounted Current Estimates back to undiscounted figures or aligns them with accounting assumptions, it ignores the uncertainty underlying the cash flows which constitute the Current Estimate. Also, this approach disconnects the P-MOCE even further from the concept of a “market-adjusted valuation”. In extreme cases, such as some GAAP with Adjustments specifications, where Non-life Current Estimates for claims liabilities are already undiscounted, the P-MOCE will simply be zero. But, even where such liabilities are discounted, the simplistic assumption which is made, that uncertainty is reflected in the duration of liability cash flows, will lead to inconsistent results. In practice, it is easily possible to find examples of liabilities which have similar Current Estimates, but for which the degree of uncertainty is quite different. This is reflected in differing levels of ICS capital requirements. For such liabilities, the P-MOCE approach would deliver exactly the same result, disregarding the element of uncertainty which it is expected to capture in the first place. Concerning Non-life premium liabilities, similarly the P-MOCE concept relies on a valuation adjustment, to convert insurance liabilities from their Current Estimate value to a simplistic assumption of 100% combined ratio. This means that, where this is already the assumption underlying the Current Estimate calculation, the MOCE also equals zero. In a more extreme situation, where the insurer has projected a loss-making business by using a combined ratio above 100%, the P-MOCE would result in a negative figure, unless artificially capped (to zero). The current non-Life P-MOCE approach is not a measure of risk or uncertainty and therefore is not consistent with ICP 14.9. It delivers the same level of MOCE regardless of the risk profile of the underlying liabilities and instead is dependent on the duration of the liability and the assumed profit margin. The P-MOCE should reflect the variability of the cashflows or another metric which provide a direct link to the uncertainty of the cashflows. This is somewhat achieved for life risks but not for non-life risks in the P-MOCE. With regard to the Non-life P-MOCE, our view is that the proposed methodology does not satisfy some of the key appropriateness conditions outlined in the ICPs. By restricting the MOCE to a valuation adjustment which fundamentally transforms discounted Current
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				Estimates back to undiscounted figures or aligns them with accounting assumptions, it ignores the uncertainty underlying the cash flows which constitute the Current Estimate. Also, this approach disconnects the P-MOCE even further from the concept of a “market-adjusted valuation”. In extreme cases, such as some GAAP with Adjustments specifications, where Non-life Current Estimates for claims liabilities are already undiscounted, the P-MOCE will simply be zero. But, even where such liabilities are discounted, the simplistic assumption which is made, that uncertainty is reflected in the duration of liability cash flows, will lead to inconsistent results. In practice, it is easily possible to find examples of liabilities which have similar Current Estimates, but for which the degree of uncertainty is quite different. This is reflected in differing levels of ICS capital requirements. For such liabilities, the P-MOCE approach would deliver exactly the same result, disregarding the element of uncertainty which it is expected to capture in the first place. Concerning Non-life premium liabilities, similarly the P-MOCE concept relies on a valuation adjustment, to convert insurance liabilities from their Current Estimate value to a simplistic assumption of 100% combined ratio. This means that, where this is already the assumption underlying the Current Estimate calculation, the MOCE also equals zero. In a more extreme situation, where the insurer has projected a loss-making business by using a combined ratio above 100%, the P-MOCE would result in a negative figure, unless artificially capped (to zero). For these reasons, our view is that the P-MOCE methodology does not constitute a suitable approach to the calculation of MOCE in the ICS. In the case of Non-life components, it consists of “MAV-to-GAAP” valuation adjustments that fail to deliver on key conceptual elements of the MOCE definition. It is also unclear how such MOCE would operate under valuation bases that are already based on GAAP assumptions, as is the case for some GAAP with Adjustments specifications, as there are no valuation adjustments to be made, possibly leading to a MOCE equal to zero for the total business.
Global Federation of Insurance Associations	Global	No	No	See response to Q40
International Actuarial Association	International	No	Yes	ICP 14.9.4 states that “the inherent uncertainty is effectively represented by the difference between premium received and the Current Estimate.” This is the same methodology that P-MOCE uses for Non-Life premium liabilities and so such margins are consistent with ICP 14.9.

				P-MOCE for claims reserves, however, is the difference between a discounted and an undiscounted claims liability. This is not a direct measurement of risk and some may view ICP 14.9 as currently precluding this application of a proxy method. Ideally, therefore, ICP 14.9 should be amended to clarify that while technical provisions should include a MOCE, the design of a solvency regime should consider the interplay of capital resources, procyclicality, franchise value, the reliability of current estimates, the presence of a MOCE and total capital requirements as they impact any needed recovery and resolution actions.
General Insurance Association of Japan	Japan	No	No	The inherent uncertainties prescribed in ICP14.9 are captured in the ICS through premium and reserve risks. They cannot be captured by future cashflow of premium liabilities and the difference between claim liabilities before and after discount. Therefore, the current design of the non-life P-MOCE is inconsistent with ICP 14.9. It also lacks comparability with the design on life P-MOCE, which does not take into account future profits and differences although they exist in life liabilities as well.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	Yes	
Legal & General	UK	No	No	We do not see the purpose of the P-MOCE in the ICS balance sheet. In our view the capital requirement already provides complete coverage of non-life risks within one year and there is therefore nothing remaining to be covered by the P-MOCE
Association of British Insurers	United Kingdom	No	No	See response to Q40.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC appreciates the effort to recognize jurisdictions that build prudence into regulatory capital requirements, but in our response to Q1, 11 and 39 we have discussed in more detail our concerns about unnecessary and costly complexity. We do not favor the inclusion of any MOCE whether it is PMOCE or a CMOCE or a CCMOCE.
RAA	United States and	No	No	See response to Q47.

	many other jurisdictions			
American Academy of Actuaries	United States of America	No	No	ICP 14.9 states that the MOCE should "...reflect the inherent uncertainty related to all relevant future cash flows that arise in fulfilling insurance obligations over the full time horizon...." For claims liability, the discount amount is used as a proxy for future uncertainty, which might not be appropriate as the duration of the payout does not necessarily reflect the uncertainty of the future cash flows. For instance, reserves on catastrophe losses (short duration) can be quite volatile while workers' comp indemnity reserves (long duration) may have very little uncertainty.
Property Casualty Insurers Association of America (PCI)	USA	No	No	See our response to Q40.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	P-MOCE is based on an approach to margin that is used in the valuation of Non-Life in every major comprehensive basis of accounting.

Q42 Section 5.2 Are there any modifications or simplifications to the methodology for the P-MOCE that would make it more appropriate for the intended purpose? If "yes", please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	The identification of the margins which make up the P-MOCE is consistent with the ICP 14 requirements for a margin within the valuation of liabilities and is consistent with requirements for a margin in valuations needed for IFRS 17. While the P-MOCE risks are already within the required capital defined by ICS 2.0, the advantage of showing a separate P-MOCE is that it

				gives an explicit measure of the margins that are required for ICP 14 liabilities and IFRS 17 liabilities.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	Use the Life risk approach of setting a specific percentile of the risk profile to derive the P-MOCE for non-life. This would provide consistency between life and non-life and will deliver a better measure of the uncertainty of the non-life liabilities. However, we would note that even after making this change there remain limitations in the P-MOCE concept which do not exist with the C-MOCE.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	Use the Life risk approach of setting a specific percentile of the risk profile to derive the P-MOCE for non-life. This would provide consistency between life and non-life and will deliver a better measure of the uncertainty of the non-life liabilities. However, even with this change there remain limitations in the P-MOCE concept which do not exist with the C-MOCE.
Global Federation of Insurance Associations	Global	No	Yes	See response to Q40
International Actuarial Association	International	No	Yes	The P-MOCE approach for Non-life uses the difference between a discounted liability (with no risk margin) and undiscounted liability as the margin. This is a proxy approach and not a direct measurement of risk. While generally speaking, uncertainty increases with time to payment, there are exceptions. One notable example is a lifetime workers compensation indemnity claim. This is a simple life annuity with minimal risk, yet under P-MOCE, would be treated like far riskier long-term liabilities cash flows. The most effective way to address this is through a capital charge that reflects the volatility and/or bias of the central estimate of the insurance risk. That is, informed by runoff data (both with regard to historic profitability on a policy year, accident year, and/or underwriting year basis, and historic runoff of prior claim liability estimates). And to then explicitly use the

				discount rate method as only reflecting financial risk. This presumes that the decision is made to require a MOCE.
General Insurance Association of Japan	Japan	No	Yes	As the current non-life P-MOCE is based on the future cashflow of premium liabilities and the difference between claim liabilities before and after discounting, we believe it should be totally redesigned to be similar to the life P-MOCE. We propose exploiting figures calculated using the ICS risk charges for Premium and Reserve Risks and Catastrophe (non-life) Risk, and reflecting the difference in confidence level, as the life P-MOCE does. As for Premium Risk and Catastrophe Risk, a proxy 50% of the risk charge should be applied in order to base MOCE on in-force contracts. More precisely, it should be in line with the life P-MOCE (using approx. 75 percentile = the presumption of a normal distribution + 0.667*standard deviation (+1σ))
The Life Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Aegion NV	The Netherlands	No	Yes	Please refer to our answer on Q40 for general comments on the MOCE. The P-MOCE seems to aim to include a buffer for uncertainty in the current estimate. As the overall capital requirement aims to cover for this as well, we are of the opinion that applying a P-MOCE on top of the capital requirement increases the confidence level beyond a 1-in-200 level and hence the P-MOCE presents a double count. There could be merit in having a P-MOCE approach to reflect this uncertainty in the balance sheet, effectively serving as a minimal requirement, but this should be accompanied with a reduction in the capital requirement by a similar amount in order to respect the 1-in-200 calibration of the ICS.

Legal & General	UK	No	No	As per our response to Q41, we do not see the purpose of the MOCE in the ICS balance sheet. However, we do consider the P-MOCE less fundamentally flawed than the C-MOCE for some of the reasons set out in our response to Q40.
Association of British Insurers	United Kingdom	No	Yes	See response to Q40.
National Association of Mutual Insurance Companies	United States	No	Yes	NAMIC suggests eliminating all MOCE options and allowing each jurisdiction to decide if additional risk margins are necessary. This would simplify the effort.
RAA	United States and many other jurisdictions	No	Yes	See response to Q47.
American Academy of Actuaries	United States of America	No	Yes	Margins (MOCE) have more uncertainty than the underlying central estimates so it is important to have as much reliability as possible as to the underlying central estimates. This means having them be part of an audited set of financial statements. Unless the IAIS is able to mandate the use of one set of audited financial statements, we suggest there would be more value gained by assessing the margins through the use (for life products) of recovery testing and/or cash flow testing instead, as that is already being done for life products to meet other financial reporting requirements. This becomes especially valuable for assessing the degree of margins provided through product features such as dividends and non-guaranteed elements. With this estimate of the relative size of the margins, additional consideration can be given to the various recovery and resolution elements and options that will depend on the specific jurisdictions in which these companies operate.
Prudential Financial, Inc.	United States of America	No	Yes	The inclusion of a MOCE double counts risks by reducing available capital for risks associated with the uncertainty of liability cash flows which are already captured in required capital. We therefore believe that including a MOCE in the ICS is inappropriate and unnecessary; the entire pool of tangible assets backing margins in reserves that are released when moving from GAAP/statutory reporting to a current estimate of insurance liabilities should be recognized as loss absorbing available capital resources.

				Please see our response to question 47 for further information.
MetLife, Inc	USA	No	Yes	See our response to Q 43 below.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	See our response to Q40.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	The P-MOCE construction is straightforward.

Q43 Section 5.2 Is the treatment of the P-MOCE, as defined in the Technical Specifications with full deduction from the capital requirement, appropriate? If “no”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	Yes	A full deduction of the P-MOCE amount from the ICS capital requirement is appropriate since the level of risk covered by the P-MOCE is already included in the required capital of the ICS. A deduction thus avoids inappropriate double counting of the same risk margin.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	The purpose of the P-MOCE is to provide additional policyholder protection. If it is fully deducted from capital requirements it does not achieve its purpose. The deduction results in no additional capital being held and instead merely re-labels a proportion of the capital

				requirements as a liability. Furthermore, the impact of this approach is to artificially increase the solvency ratio. Indeed if the P-MOCE is large enough the required capital could become negative.
Insurance Europe	Europe	No	No	Insurance Europe notes the improvement of the treatment of the P-MOCE in ICS version 2.0. As described in ICP 14.9, the MOCE reflects the inherent uncertainty related to future cash flows. Consideration of such uncertainty may be appropriate when valuing liabilities for accounting purposes; however, for capital requirements, Insurance Europe believes this approach to be excessive. Therefore, the MOCE should neither be considered as a liability nor should it be categorised as a part of capital resources.
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	The purpose of the P-MOCE is to provide additional policyholder protection and to ensure that sufficient technical provisions are set up to allow an immediate transfer of the business at all times. If it is fully deducted from capital requirements it does not achieve its purpose. The deduction results in no additional capital being held and instead merely re-labels a proportion of the capital requirements as a liability. Furthermore, the impact of this approach is to artificially increase the solvency ratio. Indeed if the P-MOCE is large enough the required capital could even become negative.
Global Federation of Insurance Associations	Global	No	Yes	GFIA notes the improvement of the design of the P-MOCE in ICS version 2.0. As described in ICP 14.9, the MOCE reflects the inherent uncertainty related to future cash flows. Consideration of such uncertainty may be appropriate when valuing liabilities for accounting purposes; however, for capital requirements, this approach may be excessive. Therefore, the MOCE should not be identified as a liability, or should be categorised as a part of capital resources. GFIA also takes the view that risks should be reflected in regulatory capital requirements, not the MOCE. In this respect, GFIA welcomes the improvement to the design of the P-MOCE in ICS v2.0. With regard to the P-MOCE on non-life obligations as described in Paragraph 153, GFIA would encourage the IAIS to consider alternative approaches based on premium and claims

				reserve risks and non-life catastrophe risks. GFIA considers that these changes would better align the non-life P-MOCE with the life P-MOCE.
International Actuarial Association	International	No	Yes	We are less concerned about the actual deductibility of the P-MOCE. The IAIS appears to be spending considerable time on the MOCE (C and P MOCE) issue whereas we view the central focus for ICS should be on central (current) estimates versus additional amounts ("capital" requirements) needed to provide policyholder protection. The presence of a CC-MOCE is of course an important part of technical provisions and may be considered by regulators as a partial offset to capital requirements. The results of field testing will be of invaluable assistance in determining the amount and/or type of offset. There is no pure actuarial argument for determining the amount of this offset, only advice on how it should be interpreted based on the assumptions and requirements for its determination.
Dai-ichi Life Holdings, Inc.	Japan	No	No	We generally supports this, but would like to make some comments. The simplest and most understandable way of PCR is to position an insurer as having the ability to perform its obligations on a going concern basis if it has assets that exceed its best estimated liabilities even when a risk event "99.5% VaR over a one-year time horizon" occurs. The introduction of a prudential approach to debt valuation and MOCE based on the transfer of insurance liabilities ensures certain risks that hinder the performance of insurance obligations even after the risk of loss equivalent to PCR (99.5% VaR over a one-year time horizon) has occurred. It is, however, excessive to require both. It also creates the regulatory complexity and makes it difficult to understand what the ICS ratio means. Given that the point of starting intervention in current regulations in each country also varies, it is appropriate that MOCE should not be recognised in the first place, and it should be recognised as a capital resource. In this perspective, the treatment of P-MOCE to deduct not only from capital resources but also from risk amounts brings the ICS ratio closer to that of simply recognising MOCE as a capital resource, which is a significant improvement. However, in terms of comprehensibility, it would be more appropriate to recognise P-MOCE as a part of capital resources than to deduct it from both capital resources and risk amounts.

General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	Yes	• The LIAJ generally supports this, but would like to make some comments. • The simplest and most understandable way of PCR is to position an insurer as having the ability to perform its obligations on a going concern basis if it has assets that exceed its best estimated liabilities even when a risk event "99.5% VaR over a one-year time horizon" occurs. The introduction of MOCE based on a prudential approach to debt valuation or the transfer approach of insurance liabilities ensures certain absorbency of insurer's risk that hinder the performance of insurance obligations even after the risk of loss equivalent to PCR (99.5% VaR over a one-year time horizon) has occurred. However it is excessive to require such amounts. It also creates the regulatory complexity and makes it difficult to understand what the ICS ratio means. Given the diversity of current regulatory approaches in various jurisdictions, there will be a high possibility of misleading users. Therefore, MOCE should not be recognised in the first place, and it should be recognised as a capital resource. • In this perspective, it is significant improvement that P-MOCE is deducted not only from capital resources but also from risk amounts, because it brings the ICS ratio closer to that of simply recognising MOCE as a capital resource. . However, in terms of comprehensibility, it would be more appropriate to recognise P-MOCE as a part of capital resources than to deduct it from both capital resources and risk amounts.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	It is not reasonable to decide whether the capital requirement is deducted depending on how MOCE is calculated. Thus, we need a reasonable adjustment regarding this issue such as deducting C-MOCE from the capital requirement. I think we need to clearly define first the characteristic of MOCE (i.e., whether it is equity or liability). After this, we can decide in a more consistent manner whether MOCE can be deducted from the capital requirement regardless of the MOCE calculation.
Aegon NV	The Netherlands	No	Yes	A deduction from required capital is the only logical approach to deal with double counting. Because the Prudence MOCE serves the same purpose as capital requirements, a 100% deduction from required capital is appropriate.

Legal & General	UK	No	Yes	If the P-MOCE is retained as a concept under ICS, then this would seem a pragmatic way to avoid a double count of prudence required in the overall basis.
Association of British Insurers	United Kingdom	No	Yes	The ABI notes the improvement of the design of the P-MOCE in ICS version 2.0.
National Association of Mutual Insurance Companies	United States	No	Yes	NAMIC agrees in general with the comparison of the P-MOCE and the conservative capital requirement with appropriate deductions if any MOCE at all must be accepted. However, the changes to P-MOCE in section 5.2.1.2 acknowledging the prudence margins available in some jurisdictions were only required because of the elimination of prudence margins included in Paragraph 90 using the current estimate definition. This was a perfect example of the unnecessary complexity of the MAV approach. Whether the technical specifications treat the two accurately is not something we can support or oppose. NAMIC is a trade association and not a field tester for the ICS. Without more information on how this specification compares for the field testing volunteers it is difficult to answer this question with more specificity.
RAA	United States and many other jurisdictions	No	No	See response to Q47.
American Academy of Actuaries	United States of America	No	No	For claims liability, the proposed P-MOCE method is based on the difference between discounted and undiscounted reserves. If this represents the uncertainty on investment income on reserves (other than default risk), then it would be a risk/uncertainty not reflected in the capital requirements and therefore a deduction does not appear to be appropriate. For premium liability, deduction from the capital requirement appears to be appropriate. In addition, we believe the deduction should take place after diversification (i.e., the premium liability P-MOCE should be subtracted from the total capital requirement) as this will eliminate the double counting between the MOCE and the capital requirement on the balance sheet.



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Prudential Financial, Inc.	United States of America	No	No	Please refer to our responses to questions 40, 42, 46, and 47.
MetLife, Inc	USA	No	No	While we note some improvement with the full deduction of MOCE from capital requirements (even though not included in the reported ICS ratios), we continue to question the role of any MOCE within the ICS. The interaction of MOCE with design and calibration of valuation, capital resources and requirements is critical and complicated, but IAIS efforts to include a MOCE to date appear not to have taken these interdependencies into account. There can be no refinement without the considerable effort to recalibrate the ICS framework and we therefore suggest strongly that MOCE be excluded.
Property Casualty Insurers Association of America (PCI)	USA	No	No	See our response to Q40.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Yes.

Q44 Section 5.2 Is the treatment of the C-MOCE, as defined in the Technical Specifications with no deduction from the capital requirement, appropriate? If “no”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
Canadian Institute of Actuaries	Canada	No	No	We do not see the value of calculating a C-MOCE as a part of the ICS.

China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	Yes	This approach is consistent with the stated aim of the C-MOCE to adjust the liabilities to a market value. This adjustment is not overlapping with the capital requirements in the base case or in stress. It is a separate element to provide the correct calibration of the liabilities and these liabilities are then stressed to calculate the capital requirements. It is not another layer of capital requirement but an integral part of the market value of liabilities.
Insurance Europe	Europe	No	No	Please refer to response to Q40
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	Yes	This approach is consistent with the stated aim of the C-MOCE to adjust the liabilities to a market value. This adjustment is not overlapping with the capital requirements in the base case or in stress. It is a separate element to provide the correct calibration of the liabilities and these liabilities are then stressed to calculate the capital requirements. It is not another layer of capital requirement but an integral part of the market value of liabilities.
International Actuarial Association	International	No	No	Internally we see two ways to assess this for non-life risk. The first is the straightforward view that whatever capital is required, there is a “cost” for carrying that capital which can be valued by standard discounting procedures. The second view is that the cost of that capital is paid back through the value of new business generated by holding that capital. The former view would mean that the C-MOCE is not deductible while under the latter, it would be, if new business can be assumed to be sufficiently profitable. For life risks, the response is “it depends” and will need further discussion and investigation. C-MOCE details need to recognize that: • While a C-MOCE defined for income purposes might be the same as a C-MOCE used to assess capital needs, the size, simplifications and uncertainty of the C-MOCE is muted for income purposes as it is released into income in the future whereas solvency is focused on a point in time measurement. • Since required capital puts an effective cap on the income that can be released to shareholders, there is a concern with how and if any procyclicality may impact both capital and C-MOCE.

				• C-MOCE for an IAIG has different implications than for a legal entity within an individual regulatory regime. At a legal entity level, a C-MOCE can identify value for selling and allow the regulator to assess the fungibility of capital and margins across the various entities within the group. • The implications of the C-MOCE for non-life is different than those for C-MOCE used to estimate the cost of capital for life/long duration products. Longer duration measures can introduce pro-cyclicality and life products can often be more easily transferred to another carrier and the capital charged for non-life insurance risk is more significant proportion of the total risk than it is for life insurance risk. • The theoretical assumption is that the actual price at a transfer occurs in a market of independent and rational purchasers. Instead, it might resemble a “Dutch” auction where the purchasing firm with the best fit for diversification of risks will pay a price higher (i.e. accept fewer assets) than the average of all market participants. A MOCE determined as the product of applying market pricing may therefore systematically overstate the size of the required MOCE for risk transfer purposes and it will ignore the franchise value as well.
Dai-ichi Life Holdings, Inc.	Japan	No	No	As mentioned in the answer to Q43, it is appropriate that MOCE should not be recognised in the first place, and it should be recognised as a capital resource. Regarding the C-MOCE, we recognises that it is seeking to secure a substantial amount of capital cost because it is necessary to enable the transfer of insurance policies in the market on a going concern basis in order to protect policyholders. However, in the event of a financial crisis that is not a normal situation, it may be difficult to find the underwriter of insurance contracts even if its costs are reimbursed, and to transfer insurance policies in the market may be considered as an unrealistic assumption from the viewpoint of protecting policyholders. Based on this recognition, there are some jurisdictions that aim to protect policyholders by developing an established resolution mechanism. In Japan, all life insurers contribute reserve funds in advance to the resolution organisation, and insurance contracts may be transferred in a way that does not require the MOCE portion through the reduction of non policy holder debts and reversal of accumulated funds. These jurisdictions are not required to secure the C-MOCEs from the viewpoint of protecting

				policyholders, but instead require prior contributions for smooth contract transfer. Regarding the necessity and amount of C - MOCE, it should be based on the existence of established resolution mechanism, and C - MOCE is unnecessary in Japan, or at least the necessary amount should be lower.
General Insurance Association of Japan	Japan	No	Yes	
The Life Insurance Association of Japan	Japan	No	No	• The simplest and most understandable way of PCR is to position an insurer as having the ability to perform its obligations on a going concern basis if it has assets that exceed its best estimated liabilities even when a risk event "99.5% VaR over a one-year time horizon" occurs. The introduction of MOCE based on a prudential approach to debt valuation or transfer approach of insurance liabilities ensures certain absorbency of insurer's risk that hinder the performance of insurance obligations even after the risk of loss equivalent to PCR (99.5% VaR over a one-year time horizon) has occurred. However, it is excessive to require such amounts. It also creates the regulatory complexity and makes it difficult to understand what the ICS ratio means. Given the diversity of current regulatory approaches in various jurisdictions, there will be a high possibility of misleading users. Therefore, MOCE should not be recognized in the first place, and it should be recognized as a capital resource. • Regarding the C-MOCE, the LIAJ recognises that the IAIS is seeking to secure a substantial amount of capital cost because it is necessary to enable the transfer of insurance policies in the market on a going concern basis in order to protect policyholders. However, in the event of a financial crisis that is not a normal situation, it may be difficult to find the underwriter of insurance contracts even if its costs are reimbursed, and the LIAJ thinks transfer of insurance policies in the market may be considered as an unrealistic assumption from the viewpoint of protecting policyholders. Based on this recognition, there are some jurisdictions that aim to protect policyholders by developing an established resolution organisation. In Japan, all life insurers contribute reserve funds to the organisation in advance, and insurance contracts may be transferred in a way that does not require the MOCE portion through the reduction of non-policyholder debts and reversal of accumulated funds. These jurisdictions are not required to secure the C-MOCEs from the viewpoint of protecting policyholders, but instead require prior

				contributions to the organisation for smooth contract transfer. Given these circumstances, the LIAJ believes that the C-MOCE is unnecessary.
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	It is not reasonable to decide whether the capital requirement is deducted depending on how MOCE is calculated. Thus, we need a reasonable adjustment regarding this issue such as deducting C-MOCE from the capital requirement. I think we need to clearly define first the characteristic of MOCE (i.e., whether it is equity or liability). After this, we should decide in a consistent manner whether MOCE can be deducted from the capital requirement irrespective of the MOCE calculation.
Aegon NV	The Netherlands	No	No	Under a Cost of Capital MOCE, the relationship between the MOCE and capital requirements over a multiple period horizon is somewhat complex (see Risk Horizon and the Measurement of Economic Capital for General Insurers, 2011, Towers Watson). It is clear, however, that a C-MOCE that is simply added to capital requirements results in a provision for risk that exceeds the 99.5%/1 year VAR level. If the IAIS pursues the C-MOCE construct, additional analysis should be undertaken to arrive at an approach that can withstand theoretical scrutiny.
Legal & General	UK	No	No	We believe that, as currently specified, there is a double count between C-MOCE and capital requirement. The rationale for the treatment being different between C-MOCE and P-MOCE is not clear to us; we believe that they are fundamentally the same concept – although we note that it is hard to assess this without a clear basis for preparation for ICS.
AIG	United States	No	No	We believe the C-MOCE has several fundamental issues that need to be addressed and require resolution: 1. Purpose of C-MOCE - it is currently intended to represent ""the margin necessary to allow transfer or own fulfilment"". We do not believe a MOCE which represents a transfer concept is appropriate for a group capital requirement since transfers would be at an entity level. Furthermore, it would be duplicative of the recovery and resolution planning elements of ComFrame. 2. Quantification methodology - the current design of the C-MOCE is inappropriate for life insurers since all future capital funding requirements are treated as independent payments



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				(i.e. based on future unconditional capital requirements) and does not take into account dependencies over time). 3. Role within capital resources and/or capital requirements - the MOCE concept within the ICS has been developed in isolation from the design and calibration of valuation, capital resources, and capital requirements. We believe that the inclusion of MOCE within liability valuation would result in an ICS that is calibrated at a level significantly higher than the intended 1 in 200 year stress level as defined in the ICS Consultation Document (Paragraph 143): ""the amount necessary to cover the cost of recapitalising to a level that satisfies the relevant prudential framework (eg an ICS ratio of 100%). This allows for an insurance entity to fulfil its obligations to policyholders as a going concern in the event of a 1 in 200 year stress."" To ensure that MOCE does not result in an ICS with a target level of policyholder protection higher than a 99.5% VaR over a one year time horizon, the MOCE would need to be either (a) added to capital resources, (b) deducted from capital requirements, or (c) capital requirements would need to be reassessed and recalibrated with the integration of the C-MOCE. Given that the ICS Version 2.0 is scheduled for implementation in 2020, recalibrating the capital requirements would be impractical given the late stage in the ICS development timeline.
National Association of Mutual Insurance Companies	United States	No	No	NAMIC disagrees with the use of a C-MOCE.
RAA	United States and many other jurisdictions	No	No	See response to Q47.
Prudential Financial, Inc.	United States of America	No	No	Please refer to our responses to questions 40, 42, 46, and 47.
MetLife, Inc	USA	No	No	We reiterate our statement in response to Q 43 above to the effect that to date the IAIS have not made a clear case for inclusion of a MOCE and do not appear to have accounted for the interdependence of MOCE with the design and calibration of Valuation, Capital Resources and Requirements and now propose a MOCE that is calculated as a liability which would result in

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				ICS calibration significantly higher than the intended 1 in 200 level. We suggest it be excluded from the ICS 2.0.
Property Casualty Insurers Association of America (PCI)	USA	No	No	No. This results in double-counting of risk. Also see our response to Q40.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	No	No. This would result in doublecounting.

Q45 Section 5.2 Are there any other methodologies that would be better suited to calculating a CC-MOCE in the ICS? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	Please refer to response to Q40 Insurance Europe highlights that the current approach for calculating the MOCE treats all future capital funding requirements as independent payments (ie based on future unconditional capital requirements) and does not take into account any dependency over time. However, any economic approach to valuing risky payments would have to take into account

			the dependence of risks over time to avoid inappropriate conclusions – such as, in the case of annuity products, implausibly low mortality rates and the implication that more capital is at risk than the worst-case scenario of policyholders living forever, or in the case of lapses total lapse rates of more than 100%. Consider a simple illustrative example concerning a five-year product with constant exposure. Applying the Standard Method ICS retail stress of 30% each year implies that the MOCE should fund enough capital corresponding to a total lapse rate of 150%, or every policyholder lapsing more than once. In fact, the worst possible case for the provider of capital (ie the maximum possible loss) corresponds to a 1-in-200 shock in each and every year – which corresponds to a total lapse rate of 83% over five years (i.e. $1 - (1 - 0.3)^5$). Therefore, any capital raised above this level the investor will receive back with certainty – and hence will not charge a premium above risk-free for it (ie this component of the total capital raised requires a corresponding MOCE of zero). Given this, it is clear that the MOCE calculation should allow for risk dependence over time. Where risk dependence exists that lowers the ultimate risk, the MOCE should be lower in accordance with this reduction in ultimate risk, as represented by a reduction in the maximum possible loss. The use of a time scaling factor would be the simplest way to achieve this, and would be applied as follows: $MOCE = CoC \sum_{t \geq 0} (\lambda^t \times \text{Expected Capital Required}(t)) / (1 + \text{discount rate})^t$ In this context, λ represents the degree to which the ultimate risk reduces relative to a series of independent risks, and is linked to the reduction in size of future 1-in-200 risks following a 1-in-200 loss in previous periods. This could be set at different levels for each line of business following a calibration exercise, or a single λ could be applied to all lines of business to take account of risk dependence over time. The key benefit of this approach is that it addresses the severe issues with the current cost of capital approach with respect to long-term business – namely excessive levels and high sensitivity to interest rate changes – without distorting the MOCE on short-term products (eg this would have no impact on one-year policies).
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Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	As GFIA has set out in Q40-42 above, IAIS needs to clearly articulate the role and purpose of the ICS at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. Currently, it is unclear whether the MOCE results in double counting of risk. Once this critical first step is taken, GFIA would be happy to engage with the IAIS on alternative methodologies for calculating a CoC-MOCE, such as that set out below. The current approach for calculating the MOCE treats all future capital funding requirements as independent payments (i.e. based on future unconditional capital requirements) and does not take into account any dependency over time. However, any economic approach to valuing risky payments would have to take into account the dependence of risks over time to avoid inappropriate conclusions – such as, in the case of annuity products, implausibly low mortality rates and the implication that more capital is at risk than the worst-case scenario of policyholders living forever, or in the case of lapses total lapse rates of more than 100%. Consider a simple illustrative example concerning a five-year product with constant exposure. Applying the Standard Method ICS retail stress of 30% each year implies that the MOCE should fund enough capital corresponding to a total lapse rate of 150%, or every policyholder lapsing more than once. In fact, the worst possible case for the provider of capital (i.e. the maximum possible loss) corresponds to a 1-in-200 shock in each and every year – which corresponds to a total lapse rate of 83% over five years (i.e. $1 - (1 - 0.3)^5$). Therefore, any capital raised above this level the investor will receive back with certainty – and hence will not charge a premium above risk-free for it (i.e. this component of the total capital raised requires a corresponding MOCE of zero). Given this, it is clear that the MOCE calculation should allow for risk dependence over time.

				Where risk dependence exists that lowers the ultimate risk, the MOCE should be lower in accordance with this reduction in ultimate risk, as represented by a reduction in the maximum possible loss. The use of a time scaling factor would be the simplest way to achieve this, and would be applied as follows : $MOCE = CoC [\sum_{t \geq 0} ((\lambda^t \times \text{Expected Capital Required}(t)) / (1 + \text{discount rate})^t)]$ In this context, λ represents the degree to which the ultimate risk reduces relative to a series of independent risks, and is linked to the reduction in size of future 1-in-200 risks following a 1-in-200 loss in previous periods. This could be set at different levels for each line of business following a calibration exercise, or a single λ could be applied to all lines of business to take account of risk dependence over time. The key benefit of this approach is that it addresses the severe issues with the current cost of capital approach with respect to long-term business – namely excessive levels and high sensitivity to interest rate changes – without distorting the MOCE on short-term products (e.g. this would have no impact on one-year policies).
International Actuarial Association	International	No	Yes	A CC-MOCE methodology also needs to appropriately reflect the level of risk partitioned between policyholder and the company in a way that does not assess risk to the entity that has been accepted by the policyholder. Traditional discussion of CC-MOCE (and discount rates) have typically focused on fixed sets of expected cash flows which do not have this characteristic. The Insurance Regulation Committee of the IAA would be glad to provide a more extensive methodology and basis that integrates both the CC-MOCE and the discount rates in a more consistent manner.
Dai-ichi Life Holdings, Inc.	Japan	No	Yes	Regarding cost of capital, differences in risk premium required in each jurisdiction should be reflected. It is conceivable to add a fixed addition such as 100 bps based on the spread of the BBB used for ICS.

General Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
Legal & General	UK	No	Yes	There are a number of potential methodologies for calculating a CC-MOCE in the ICS, but without a clear basis of preparation it is impossible to make an assessment of what the most suitable method would be. In general, we are yet to see any clear articulation of why the ICS regime needs a MOCE at all. Our experience from Solvency II implementation is that the Risk Margin (which is similar to the CC-MOCE) has not served any useful purpose and is generally felt to lack credibility.
Association of British Insurers	United Kingdom	No	Yes	As we have set out in Q40-42 above, IAIS needs to clearly articulate the role and purpose of the ICS at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. Currently, it is unclear whether the MOCE results in double counting of risk. Once this critical first step is taken, we would be happy to engage with the IAIS on alternative methodologies for calculating a CoC-MOCE, such as that set out below. The current approach for calculating the MOCE treats all future capital funding requirements as independent payments (i.e. based on future unconditional capital requirements) and does not take into account any dependency over time. However, any economic approach to valuing risky payments would have to take into account the dependence of risks over time to avoid inappropriate conclusions – such as, in the case of annuity products, implausibly low mortality rates and the implication that more capital is at risk than the worst-case scenario of policyholders living forever, or in the case of lapses total lapse rates of more than 100%. Consider a simple illustrative example concerning a five-year product with constant exposure. Applying the Standard Method ICS retail stress of 30% each year implies that the MOCE should fund enough capital corresponding to a total lapse rate of 150%, or every policyholder lapsing more than once.

				In fact, the worst possible case for the provider of capital (i.e. the maximum possible loss) corresponds to a 1-in-200 shock in each and every year – which corresponds to a total lapse rate of 83% over five years (i.e. $1 - (1 - 0.3)^5$). Therefore, any capital raised above this level the investor will receive back with certainty – and hence will not charge a premium above risk-free for it (i.e. this component of the total capital raised requires a corresponding MOCE of zero). Given this, it is clear that the MOCE calculation should allow for risk dependence over time. Where risk dependence exists that lowers the ultimate risk, the MOCE should be lower in accordance with this reduction in ultimate risk, as represented by a reduction in the maximum possible loss. The use of a time scaling factor would be the simplest way to achieve this, and would be applied as follows: $\text{MOCE} = \text{CoC} * \sum \{(\lambda^t * \text{Expected Capital Required}(t)) / ((1 + \text{discount rate})^t)\}$ In this context, λ represents the degree to which the ultimate risk reduces relative to a series of independent risks, and is linked to the reduction in size of future 1-in-200 risks following a 1-in-200 loss in previous periods. This could be set at different levels for each line of business following a calibration exercise, or a single λ could be applied to all lines of business to take account of risk dependence over time. The key benefit of this approach is that it addresses the severe issues with the current cost of capital approach with respect to long-term business (seen with the Solvency II Risk Margin) – namely excessive levels and high sensitivity to interest rate changes – without distorting the MOCE on short-term products (e.g. this would have no impact on one-year policies).
National Association of Mutual Insurance Companies	United States	No	Yes	The C-MOCE approach is not at all consistent with the risks in property casualty contracts. No application of a MOCE would be more appropriate.
MetLife, Inc	USA	No	No	

Property Casualty Insurers Association of America (PCI)	USA	No	No	No. See our response to Q40. This results in double-counting of risk.
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Q46 Section 5.2 Are there any other policy measures or supervisory tools that may serve a similar purpose to the CC-MOCE and resolve perceived issues relating to the purpose, construct of the CC-MOCE or its interactions with the capital requirement? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	No	
European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	Other supervisory measures, which are not within the remit of the insurance group to implement, should not be assumed to be a source of policyholder protection from an insurance group. These measures cannot be assumed to be effective in stress scenarios as they are dependent on numerous external factors outside of the control of the insurance group.
German Insurance Association	Germany	No	Yes	The uncertainties in the best estimate are captured by the risk capital to be held. As such there is no room for a P-MOCE that does not overlap with capital requirements. A CC-MOCE takes a transfer perspective with the intention to model and secure enough funds to transfer the liabilities to a third party and ensure that the expected shareholder return for the assuming party equals expected equity return of the insurance sector. As such a CC-MOCE has the role of a minimum capital requirement to fund a potential transfer. It is not a liability to policyholders and as such should be considered as a minimum level of capital.

Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	Other supervisory measures, which are not within the gift of the insurance group to implement, should not be assumed to a source of policyholder protection from an insurance group. These measures cannot be assumed to be effective in stress scenarios as they are dependent on numerous external factors outside of the control of the insurance group.
International Actuarial Association	International	No	Yes	1. Examples include restrictions on transfers of policies and/or liabilities, further levels of intervention (below the PCR) for capital inadequacy, capital requirements at the legal entity level and guaranty funds. 2. The risk and uncertainty associated with long-term insurance is traditionally divided between financial risk and insurance risk, such as mortality and morbidity trends and calamities. In addition, many long-duration products contain both of these types of risk, policyholder behavior and potential management behavior (for example, dividends/bonuses and non-guaranteed elements) which impact both insurance and financial risks, so any method chosen needs to be clear regarding how that mix is estimated and then allocated. A study by the Aggregate Margin Task Force of the American Academy of Actuaries for the NAIC (presented in August of 2013) includes (page 27) an example of how the relative size of P-MOCE and C-MOCE can diverge significantly over time when both are constructed on a simplistic basis. Their report states that their chart: “illustrates the pattern of margin runoff that could be expected for a long-term contract. This example is illustrative only for a single term life insurance contract, and was designed such that the midpoint margin is equivalent between the two methods. The risk factors included are interest rates and mortality (pandemic and misestimation risks). Very simple underlying assumptions were used, and the actual margin pattern will differ, perhaps materially, if different assumptions were used. The confidence interval amount was assumed to equal half of the capital used in the cost of capital method for simplicity. Under the cost of capital method, the margin starts at a higher level but is released more quickly. Under the confidence interval method, the margin is released more slowly over time and a significant margin remains until contract expiration. While this pattern may hold in general, it will differ for any specific contract. “ In other words, simplistic approaches to P-MOCE and to C-MOCE will result in significant divergent results. C-MOCE needs to have consistent application of discounting and crediting methods to both the assets and liabilities and P-MOCE needs to have some stress testing baseline in order to get comparable results to a C-MOCE and over time.

				3. It is true that consistent signals from both a Prudential and Cost of Capital method can be obtained if appropriate stress testing is conducted on the underlying asset and liability cash flows. However, the implementation of margins into a reported balance sheet and subsequent income statement requires nuanced considerations. Margins and capital will add more uncertainty to the underlying current estimates so we think it important to have as much reliability as possible concerning the underlying current estimates. For long-term contracts, this would be helped by taking the central estimate (and margins) from an audited set of financial statements. For these reasons, unless the IAIS is able to mandate the use of one set of audited financial statements, we suggest there would be more value gained by assessing the MOCE or margins through the use of recovery testing and/or cash flow testing that is already being done to meet other financial reporting requirements and stress testing needs. This becomes especially valuable for assessing the degree of margins provided through dividends, or non-guaranteed elements. 4. For short term non-life contracts, methods to assess the consistent reliability of current estimates (i.e. to assess bias and volatility) over time are more useful guides for setting needed margins/capital than methods based on an assumed underlying distribution. 5. There are important distinctions between margins and capital needed for life and non-life products. Non-life products typically have greater uncertainty around accurate estimates of the central values. Thus, non-life products have (almost universally) premiums that are reset each year and use actual to expected claim runoffs to sustainably manage the uncertainty and to monitor it on a shorter time horizon (typically 12-18 months). For life products, the uncertainty is compounded over a longer time horizon and may interact with market risks. For income statement purposes, this uncertainty can be released and revised over the lifetime of the business in a yearly manner, so the materiality of the uncertainty is muted in each period. 6. However, for capital purposes this uncertainty includes two mismeasurement risks. It can be procyclical or it can be blind to and miss key changes in its risk exposures, since it is always determined at a point in time only. This is why there is great value in the additional use of stress testing and for changes in capital to be linked to a comprehensive reporting framework. While still likely to have some imprecisions and inconsistencies, both the IASB and the FASB have addressed this mismeasurement risk by distinguishing between balance sheet changes that are put through income and those that are reported under Other Comprehensive Income.
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Dai-ichi Life Holdings, Inc.	Japan	No	Yes	There are some jurisdictions that aim to protect policyholders by developing an established resolution mechanism. In Japan, all life insurers contribute reserve funds in advance to the resolution organisation, and insurance contracts may be transferred in a way that does not require the MOCE portion through the reduction of non policy holder debts and reversal of accumulated funds. These jurisdictions are not required to secure the C-MOCEs from the viewpoint of protecting policyholders, but instead require prior contributions for smooth contract transfer. Regarding the necessity and amount of C - MOCE, it should be based on the existence of established resolution mechanism, and C - MOCE is unnecessary in Japan, or at least the necessary amount should be lower.
General Insurance Association of Japan	Japan	No	No	
Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
American Council of Life Insurers	Office of General Counsel	No	Yes	A cost of capital MOCE represents the transfer of liabilities in a stress situation and is both duplicative of loss absorbing resources (available capital) and policyholder protection mechanisms, such as jurisdictional policyholder protection schemes and recovery and resolution frameworks that currently exist or are under development or proposed by ComFrame or other regulatory reforms under way.
Legal & General	UK	No	No	It is hard to answer this question without a clearer articulation of what the purpose of the CC-MOCE is.
National Association of Mutual Insurance Companies	United States	No	Yes	U.S. state insurance regulators have a significantly “hands on” solvency supervisory system that works as an alternative to a required risk margin. These tools include: • annual and quarterly financial reporting pursuant to Statutory Accounting principles; • regular comprehensive financial examinations;



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				• annual corporate governance disclosures; • annual enterprise risk reporting (ORSA and Enterprise Risk Reports); • numerous holding company reports and approvals (including validating reinsurance protection, itemizing mergers and acquisitions, approval of intracompany transactions, approval of extraordinary dividends etc.); • on-going company/group financial analysis; • restrictions on investments for inclusion as admitted assets; • monitoring of solvency ratios; • authority to intervene with companies in hazardous financial condition exhibited by activities other than capital weakness as well as ladders of intervention for diminishing RBC levels below 300%; and • RBC reporting and compliance including charges for affiliate risk, investment risk, asset risk, credit risk, market risk, underwriting/premium/reserve risk, modeled catastrophe risk, operational risk and working on a group capital calculation. These provide some options for the IAIS to consider in evaluating risk margins. Perhaps no margins are needed when hands-on oversight is appropriately applied to the supervision of insurers.
Prudential Financial, Inc.	United States of America	No	Yes	While there continues to be a lack of clarity over what the IAIS is aiming to achieve through the inclusion of a MOCE in the ICS, we note that there are a range of policy measures and supervisory tools aimed at ensuring insurers and their supervisors assess all relevant risks – both quantitatively and qualitatively – through a range of vehicles (e.g., ORSAs, recovery planning, resolution planning, existing entity level and where applicable group level solvency frameworks, controls and outside audit of assumptions underpinning valuation of current

				estimates, etc.). Instead of developing an excessively conservative ICS – through the inclusion of elements like a MOCE, among others – the IAIS should aim to develop an ICS that serves as a balanced complement to its broader policy measure framework.
MetLife, Inc	USA	No	Yes	In that a “prudence” MOCE represents unexpected loss relative to best estimate liabilities it is duplicative of required capital. A “cost of capital” MOCE represents the transfer of liabilities in a stress situation and is both duplicative of loss absorbing resources (available capital) and of policyholder protections mechanisms, such as jurisdictional policyholder protection schemes and recovery and resolution frameworks that currently exist or are under development or proposed by ComFrame or regulatory reforms underway.
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	Yes. See our response to Q40.
National Association of Insurance Commissioners (NAIC)	USA, NAIC	No	Yes	Yes. Regulators have a variety of tools at their disposal. One example in the U.S. would be a guaranty fund. C-MOCE is based on assumption that first capital is exhausted and then there is a transfer. This is not a realistic assumption. Further, it is inconsistent with U.S. resolution laws. U.S. insurance entities can potentially be placed into liquidation on the grounds of insolvency while still having assets that exceed liabilities. The assets of this estate would then become part of the assets that the guaranty fund uses to pay claims.

Q47 Section 5.2 Are there any further comments on MOCE that the IAIS should consider in the development of ICS Version 2.0? If “yes”, please explain with sufficient detail and rationale.

Organisation	Jurisdiction	Confidential	Answer	Answer Comments
CLHIA	Canada	No	Yes	The CLHIA believes that further attention is needed to define and provide rationale for the purpose and role of the CC-MOCE, in particular how it aligns with other components of the

				ICS ratio. In the absence of this more robust analysis, the CLHIA recommends its removal from the ICS. In our view, a key ICS construct issue of the purpose and role of a CC-MOCE, if indeed it remains a component of the ICS, is the extent of the importance to align the ICS ratio numerator and denominator, including period to period movements in both. Ignoring taxes in the first instance, given that capital requirements cover “Unexpected” minus Expected (footnote 26 on page 59, which we interpret as “CTE99 less CTE0”), capital requirements cover potential losses in excess of “current estimates”. If the goal is to align capital resources available to fund that tranche of losses, then capital resources should recognize the availability of those margins to fund that tranche. If capital resources in the first instance contain provisions for margins (i.e. in the MAV), then those margins should be added back to the numerator to achieve this alignment. The current ICS treatment of 1. Subtraction of P-MOCE from capital requirements 2. No adjustment for C-MOCE we believe is inconsistent with the aforementioned alignment for the following two reasons 1. Inconsistent treatment 2. In the absence of adding back the CC-MOCE to the numerator of the ICS ratio, there will potentially be substantial distortions on the ICS ratio in cases of the CC-MOCE being large. In the case of the current treatment of P-MOCE, the impact on the ICS ratio of lower capital resources from its inclusion in the MAV could dwarf the impact of the reduction in capital requirements. ICS ratios could be even more distorted in the case of C-MOCE as it is not currently even deducted from capital requirements. Therefore, in the case of the current treatment of P-MOCE, the ICS needs to be changed from a deduction from capital requirements to an addition to capital resources. In the case of the treatment of C-MOCE, it should be added to the numerator. This is the treatment in the Canadian regulatory capital regime LICAT and it is the appropriate mechanism to align numerator and denominator.
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				We acknowledge the IAIS's views on how the C-MOCE and P-MOCE differ in their purposes in isolation. However, if the goal is to align numerator and denominator, we view those purposes as not relevant. Any amount of CC-MOCE that is included in the MAV should be added back to the numerator. This is particularly relevant if the calculation of the denominator is not dependent on whether the basis for CC-MOCE is C-MOCE or P-MOCE as the PCR ratio should be the same under both. We are unable to rationalize why the two types of MOCE should result in different net capital positions for a company. Another issue in aligning the numerator and denominator should be, as we experienced in the development of the Canadian regulatory capital regime LICAT, consistency in interest rate sensitivity of the CC-MOCE with the interest rate sensitivity of the corresponding capital requirements for risks covered by CC-MOCE. Although we recognize the alignment of CC-MOCE with the implicit "MOCE's" in assets valued at market, this in of itself is insufficient to support a CC-MOCE for MAV in the context of aligning numerator and denominator. In fact, regardless of whether there is a MAV CC-MOCE, if capital requirements for credit risk are also calibrated as CTE99-CTE0, in theory some provision for "margins" in assets should also be added in the numerator of the ICS ratio. If the goal is not to align numerator and denominator, then we request the IAIS be transparent in providing a rationale, notably to ensure there is a robust understanding of what capital resources and capital requirements represent and how the ICS ratios should be interpreted given this misalignment. Issues related to tax effecting the ICS ratio raises further questions relating to CC-MOCE which need to be addressed. However, these questions are premature in the absence of a robust understanding of the role and purpose of CC-MOCE.
China Banking and Insurance Regulatory Commission (CBIRC)	China	No	Yes	We agree with the concept of C-MOCE but the parameters used for C-MOCE calculation is hardly observable in emerging markets, and the C-MOCE result is also very difficult to explain. Therefore, between C-MOCE and P-MOCE, we support more on the P-MOCE approach.

European Insurance and Occupational Pensions Authority (EIOPA)	EIOPA	No	No	
Insurance Europe	Europe	No	Yes	See answer to Q40
Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Germany - BAFIN	No	No	
Global Federation of Insurance Associations	Global	No	Yes	GFIA does not consider that the inclusion of a MOCE has been justified to date, because the IAIS has not clearly articulated the purpose of the ICS at group level. The ICS is intended to be a consolidated group capital requirement, and not a replacement for capital requirements for individual insurance entities at a jurisdictional level. As a consolidated group capital requirement there appears to be no coherent rationale for the role of the MOCE to be available in case of transfer. It is important that the ICS focuses on the financial strength of the group as a whole, and does not duplicate areas already addressed at an entity level by existing regulation. However, while a MOCE can make sense at legal entity level, it does not necessarily have a valid role to play at group level, and risks merely introducing a new layer of conservatism. Paragraph 137 notes that there can be different possible objectives for the MOCE; however, as a first step the role and purpose of the ICS should be clearly articulated at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. GFIA would note that using a prudence based P-MOCE would result in double counting unless the offset against capital requirements is retained. GFIA would also note that the CoC-MOCE is consistent and comparable between life and non-life insurance, whereas the P-MOCE is not. From a general insurance perspective, there are arguments for a Cost of Capital MOCE being

				part of a firms' liabilities. However, the proposed design for the CoC-MOCE is inappropriate for life insurers, as it treats all future capital funding requirements as independent payments (i.e. based on future unconditional capital requirements) and does not take into account any dependency over time. See also our response to Q45. Conversely, the proposed design of the P-MOCE is inappropriate for P&C insurers as it eliminates the effect of discounting. Not including a MOCE in ICS would have no bearing on the level of policyholder protection, and in the absence of an adequate justification for the MOCE, GFIA recommends that this requirement is removed. Any potential unexpected losses can be adequately covered by capital requirements and the associated ladders of regulatory intervention deemed useful by individual jurisdictions. If despite these arguments, the IAIS retains MOCE within the ICS, then it should only be included as a measure of capital rather than an addition to technical provisions. This could then provide a minimum bound below which no insurer would be regarded as viable, therefore equivalent to the minimum capital requirement in ICP 17 (ICP 17.4).
International Actuarial Association	International	No	Yes	It will be a challenge if the IAIS wishes to use a MOCE design that provides enough assurance that the numbers are truly comparable across firms and countries. But more importantly, it is the degree/level of margins within the specific legal entities of an IAIG (and the level of uncertainty associated with those margins) which will be of most interest to a supervisory college to assess and plan for any needed fungibility or sale of a firm that could generate additional capital for the parent's needs. As stated in Question 43, we are less concerned about the actual deductibility of the P-MOCE. The IAIS appears to be spending considerable time on the MOCE (C and P MOCE) issue whereas we view the central focus for ICS should be on central (current) estimates versus additional amounts ("capital" requirements) needed to provide policyholder protection. The presence of a CC-MOCE is of course an important part of technical provisions and may be considered by regulators as a partial offset to capital requirements. The results of field testing will be of invaluable assistance in determining the amount and/or type of offset. There is no pure actuarial argument for determining the amount of this offset, only advice on how it should be interpreted based on the assumptions and requirements for its determination. To that end, assessing a MOCE should include at least the



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				following desirable characteristics: a. Does it capture the inter-dependence among risks and are the parameters internally consistent? b. Is it auditable (or otherwise validated to a suitable level of assurance)? c. Is it an integral and internally consistent part of the financial reporting, capital and recovery/resolution framework in which it is being considered? MOCE and required capital should reflect the relative degree of uncertainty/credibility in the central estimate. Soundly based margins and required capital are dependent on the reliability of a central estimate. This argues for relying on an audited set of financial statements as the context for margins and required capital determination. d. What actions/decisions will the MOCE/ICS design encourage insurers to take and how would/could it be used by supervisors? The requirements for a MOCE should be consistent with the capital and recovery/resolution framework in which it is considered. Different jurisdictions have addressed MOCE requirements in different ways. In addition, the basis for these and other defined or implicitly used margins may have different meanings in different frameworks. It may be meant, for example, (1) to provide a limited margin for adverse deviations, (2) to include or exclude a margin for financial risks or (3) to provide a defined return on required invested capital. Thus, margins are defined within IFRS 17, FASB Long Duration Contracts and Solvency II, but their details and meaning will differ. Representing either margins or required capital through a single number will not sufficiently convey the risk characteristics of an entity's business model for ICS purposes, especially when it combines life and non-life insurance risks that are inter-related or combined with financial risk. Thus, it is important to understand sources of margins within the balance sheet to address and introduce additional discipline and perspective into the assessment of uncertainty. This assessment of uncertainty should consider: • Current balance sheet reported capital estimate over a "current central estimate"; • New/renewal premiums for short-term insurance, since premiums can be reset each year; • Use of claim development patterns and the variability of historic operating ratios (e.g., loss ratios); • The choice of a discount rate for long duration contracts that consistently reflects asset and liability cash flows; • Use of and level of dividend or non-guaranteed elements for long duration (e.g., life and
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				annuity) business; • Use of cash flow or recovery testing; and • Sharing of an ORSA with regulators. To summarize: 1. MOCE provisions will differ between insurers for several reasons, including differences in product risk profiles, professional judgements in the split between the current estimate and MOCE, and varying requirements of different reporting bases. 2. To assess the equivalence of MOCE across jurisdictions the Insurance Regulation Committee of the IAA suggests a field test process for long duration/tail business to require separate disclosure of current estimates, related MOCE or other margins (to the extent explicitly determined in relevant financial reports), as well as the impact on each of standardized stress testing (where applicable). For example, P-MOCE for life insurance provides a margin for adverse deviations through (1) a formula-based approach as in U.S. Statutory accounting or (2) through a risk margin-based on the entity's perception of its risk exposures (IFRS 17). Either of these methods may or may not mix financial risk margins with insurance risk margins in a consistent fashion. While Solvency II (a C-MOCE method) makes it clear that its MOCE is expressly intended to only address non-hedgable risk, the fact that it is discounted implies that there is some mingling of financial and insurance risks. In addition, the Solvency II equivalent to C-MOCE represents a defined return to shareholders in excess of a certain risk level as opposed to a return to policyholders up to a certain risk level. However, if properly integrated with disclosures and stress testing, the IRC believes that either the P-MOCE or C-MOCE can be used for long duration products, as long as their determination is disclosed in their comprehensive financial statements to provide insight into the overall level of conservatism in technical provisions. Given the IAIS option to test the equivalence of financial statement alternatives to the ICS defined market-adjusted valuation approach, we believe this is an important consideration. It should also aid in assessing which design(s) of MOCE captures the essence of the risks more appropriately. Field testing suggestions for assessing margins: We recommend obtaining estimates of margins based on their different sources from life product financial reports and those for non-life products (to the extent available). They include: Short-term potential sources of margins
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				a. Unearned premium reserve – usually available unless bad (unprofitable) underwriting; b. When material, the lack of a discount rate for U.S. claim liabilities (or, in other jurisdictions, the possible use of a risk-free rate); and c. Future premiums which include franchise value and the profitability of ongoing operations (which may be available to offset slowly emerging legacy risks). 2. Long-term potential sources of insurance margins (based on local accounting/reporting requirements) a. Trend in mortality and morbidity; b. Policyholder behavior; c. Local regulatory intervention requirements; d. Dividend and non-guaranteed element provisions in contracts for a and b above; 3. Financial risk – sources of margin may include: i. C-MOCE liquidity premium if risk-free rates are used for discounting ii. C-MOCE varying levels of credit spread compared to historical default rates, if liquidity is not a risk Understanding the level and impact of these sources via field testing should help clarify and support the following: a. If there is a capital charge for claim volatility, the reported MOCE should be allowed as a capital credit. b. Mispricing/underwriting risk for non-life is captured by an unearned premium reserve and capital - no MOCE is needed in this case because it is implicitly included in the unearned premium reserve. c. Market value-based regimes will need to stress test life products for the impact of procyclicality and prudential-based regimes will need to stress test for the ability to meet guarantees and options. This information should generally be available on an approximate basis for IAIGs based on their internal models used for loss recognition, for cash flow testing or for economic capital determination. d. An appropriate way to recognize the margins within discretionary control of the company e. Any guidance needed regarding adjustments to financial statements to consistently reflect discounting and risk charges for assets and liabilities to the extent those statements don't already reflect those items in a consistent manner.
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Dai-ichi Life Holdings, Inc.	Japan	No	Yes	Accounting standards and capital regulations have different objectives to achieve. It is one way of thinking to consider uncertainty from the need to reflect conservatism as a part of accounting liability valuation. However, conservatism is built in by measuring the risk of losses equivalent to PCR (99.5% VaR over a one-year time horizon) in capital regulations. It is not necessary to reflect the conservativeness in the available capitals, or the comprehensibility may be hindered.
General Insurance Association of Japan	Japan	No	Yes	As long as insurance liabilities are valued on a market adjusted basis, insurance obligations will be transferred above the current estimate with a premium (margin). When an insurer fulfils its obligations (run-off), it needs capital to meet uncertainties (risks) from its insurance obligations and the associated costs required to raise capital. Therefore, we believe it is necessary to include MOCE in the current estimate. We are aware of the discussion that even if an insurers' capital falls below the PCR and the supervisors intervene, insurers' capital above the MCR could be utilized as premium to cover the cost of transfer of insurance obligations, which renders MOCE unnecessary. However, since the ICS is a 'going-concern' standard, we do not think it is appropriate to conclude that MOCE is unnecessary based on the discussion which put winding-up as a premise. Nevertheless, the concept and calibration of MOCE should be decided reasonably. In particular, design alignment should be achieved between life and non-life risks, and calibration should be neither too high nor too low. As P-MOCE lacks consistency and comparability between life and non-life risks, we support C-MOCE which is consistent and comparable between life and non-life insurers.
The Life Insurance Association of Japan	Japan	No	Yes	- Accounting standards and capital regulations have different objectives to achieve. It is one way of thinking to consider uncertainty from the need to reflect conservatism as a part of accounting liability valuation. However, conservatism is built in by measuring the risk of losses equivalent to PCR (99.5% VaR over a one-year time horizon) in capital regulations. It is not necessary to reflect the conservativeness in the available capitals, and the comprehensibility may be hindered. - Deducting MOCE effectively from available capitals undervalues loss-absorbing resources. It is not necessary to reflect conservativeness in available capitals, and this may undermine the understandings of this standard.

Financial Supervisory Service (FSS) & Financial Services Commission (FSC)	Korea (Republic of)	No	No	
American Council of Life Insurers	Office of General Counsel	No	Yes	ACLI believes that the IAIS has to date failed to provide a compelling rationale for a global MOCE that applies in every jurisdiction, regardless of whatever policyholder protection mechanisms and recovery and resolution standards that exist in particular jurisdictions. It is noteworthy that, even after several years of debate, supervisors have failed to arrive at a consensus view of what MOCE represents, how it should be calculated, how it interacts with capital requirements, and whether it results in a double counting of risk. For example, a “prudence” MOCE represents unexpected loss relative to best estimate liabilities and is therefore duplicative of required capital. On the other hand, a “cost of capital” MOCE represents the transfer of liabilities in a stress situation and is both duplicative of loss absorbing resources (available capital) and policyholder protections mechanisms, such as jurisdictional policyholder protection schemes and recovery and resolution frameworks that currently exist or are underdevelopment or proposed by ComFrame or other regulatory reforms underway. In practice, MOCE is likely to result in an ICS standard that is calibrated at a level well above the intended 1-in-200 level. At the very least, any inclusion of MOCE within liabilities would necessitate a broader recalibration of ICS capital requirements. For example, the U.S. state solvency regime calibrates required capital factors based on the degree of conservatism reflected in technical provisions. We recommend MOCE be removed from the ICS.
Aegon NV	The Netherlands	No	Yes	If the MOCE is implemented and effectively acts as an increase of the insurance liability on the ICS balance sheet, it will trigger a temporary difference with the tax balance sheet. As such it should also trigger a deferred tax asset.
Legal & General	UK	No	No	Our feedback on this subject has been adequately captured within other questions
Association of British Insurers	United Kingdom	No	Yes	The ABI does not consider that the inclusion of a MOCE has been justified to date, because the IAIS has not clearly articulated the purpose of the ICS at group level.

				The ICS is intended to be a consolidated group capital requirement, and not a replacement for capital requirements for individual insurance entities at a jurisdictional level. As a consolidated group capital requirement there appears to be no coherent rationale for the role of the MOCE to be available in case of transfer. It is important that the ICS focuses on the financial strength of the group as a whole, and does not duplicate areas already addressed at an entity level by existing regulation, such as the Solvency II Risk Margin within technical provisions. However, while a MOCE can make sense at legal entity level, it does not necessarily have a valid role to play at group level, and risks merely introducing a new layer of conservatism. Paragraph 137 notes that there can be different possible objectives for the MOCE; however, as a first step the role and purpose of the ICS should be clearly articulated at group level. A clear articulation of the purpose of the MOCE itself is also required, as the CoC-MOCE serves a completely different purpose from the P-MOCE. The ABI would note that using a prudence based P-MOCE may result in double counting unless the offset against capital requirements is retained. Furthermore, the proposed design for the CoC-MOCE is inappropriate for life insurers, as it treats all future capital funding requirements as independent payments (i.e. based on future unconditional capital requirements) and does not take into account any dependency over time. See also our response to Q45. Conversely, the proposed design of the P-MOCE is inappropriate for P&C insurers as it eliminates the effect of discounting. The IAIS is requested to take note of this genuine concern and to refine the methodology accordingly. Not including a MOCE in ICS would have no bearing on the level of policyholder protection, and in the absence of an adequate justification for the MOCE, the ABI recommends that this requirement is removed. Any potential unexpected losses can be adequately covered by capital requirements. This is the approach that UK regulators adopted prior to the introduction
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				of Solvency II under their ICAS regime, which proved to be a robust and resilient regime during the financial crisis. If despite these arguments, the IAIS retains MOCE within the ICS, then it should only be included as a measure of capital rather than an addition to technical provisions. This could then provide a minimum bound below which no insurer would be regarded as viable, therefore equivalent to the minimum capital requirement in ICP 17 (ICP 17.4).
National Association of Mutual Insurance Companies	United States	No	Yes	Answer : See response to Q1, 39, and 46.
RAA	United States and many other jurisdictions	No	Yes	The ICS recommends the use of a MOCE on top of best estimate liabilities to reflect their risk adjusted valuation. According to the consultation, this would assist in ensuring consistency in the liability valuation. We do not consider that the inclusion of a MOCE has been justified to date as the IAIS has not clearly articulated the purpose of the MOCE. We see several fundamental issues regarding the treatment of MOCE that remain uncertain and still need resolution, including: the concept or purpose of a MOCE; the quantification methodology; MOCE's role within the ICS calculations of available and/or required capital; and the interaction of MOCE with local requirements. Given these fundamental uncertainties and their potentially significant implications on ICS ratios, we view the resolution of the MOCE issue as a priority for the IAIS. While a MOCE can make sense at legal entity level, it does not necessarily a valid role to play at group level and risks merely introducing a new layer of conservatism. As a first step the role and purpose of the ICS should be clearly articulated before a decision can be made on whether MOCE is required or not. The proposed design of the P MOCE is inappropriate for non-life insurers as it eliminates the effect of discounting.
Prudential Financial, Inc.	United States of America	No	Yes	The inclusion of a MOCE double counts risks by reducing available capital for risks associated with the uncertainty of liability cash flows which are already captured in required capital. We therefore believe that including a MOCE in the ICS is inappropriate and unnecessary; the tangible assets backing margins in reserves that are released when moving from GAAP/statutory reporting to a current estimate of insurance liabilities should be recognized as loss absorbing available capital resources.

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				While there continues to be a lack of clarity over what the IAIS is aiming to achieve through the inclusion of a MOCE in the ICS and we strongly object to its inclusion in the ICS, we note that a simple and pragmatic approach would be to apply factors (which could vary by business segment) to the current estimate, with the resulting MOCE fully recognized as a capital resource and not deducted from required capital. Such an approach would be simple to implement and resolve the current double count of risk as the MOCE would essentially become an informational data point rather than a value that leads to understated ICS results.
Liberty Mutual Insurance Group	USA	No	Yes	Liberty Mutual has previously criticized the use of a MOCE as needlessly complex, unnecessary, and fundamentally irreconcilable with the accounting system used in the U.S. to set non-life insurance reserves. Others have shared this view, but the IAIS has, if anything, made the MOCE more complicated. The MOCE should be deleted from the ICS. The IAIS has presented no convincing evidence to support its statement in Paragraph 135 that “differences in how margins are calculated is one of the key reasons for the lack of global comparability in the valuation of insurance liabilities.”
Property Casualty Insurers Association of America (PCI)	USA	No	Yes	Yes. See our response to Q40.

End of Section 5.2