



AMERICAN ACADEMY of ACTUARIES

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July 14, 2015

Mr. Tom Sullivan  
Senior Adviser, Insurance  
Board of Governors of the Federal Reserve System  
20th Street and Constitution Avenue N.W.  
Washington, D.C. 20551

RE: Request for Feedback on the IAIS MOCE Proposal and the C-MOCE

Dear Tom,

On behalf of the American Academy of Actuaries’<sup>1</sup> Risk Management and Financial Reporting Council, I am pleased to provide you with an actuarial perspective on the use of a “margin over current estimate” (MOCE) as proposed in the International Association of Insurance Supervisor’s (IAIS) *Risk-based Global Insurance Capital Standard* public consultation document, dated Dec. 17, 2014.

Per the Federal Reserve Board’s request, we examined the potential development and inclusion of a MOCE in the calculation of qualifying capital resources for international solvency regulatory purposes. A detailed discussion of our responses is found below. We believe that the usefulness of a MOCE will vary depending on the role a MOCE is intended to fulfill. A MOCE that is defined within a “transfer value” construct may provide value to regulators. However, we have difficulty finding a role for MOCE within a “prudence” construct where there is already a total asset solvency requirement. We believe that developing and implementing a consistent and comparable MOCE (C-MOCE) will be difficult.

In addition, we would strongly encourage those drafting a group solvency standard, whether it is the Federal Reserve Board or the IAIS, to clearly articulate the objectives and purposes of both the solvency standard and a risk margin, like the MOCE, if it is included. The current IAIS insurance capital standard (ICS) proposal would significantly benefit from additional detail, particularly regarding the rationale and the need for potentially including a MOCE. We would also like to note that many of the Council’s members did not have access to the instructions related to the IAIS field testing. Thus, our analysis was based on the information contained in the above referenced concept paper.

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<sup>1</sup> The American Academy of Actuaries is an 18,500+ member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

## Background

The IAIS's Insurance Core Principle (ICP) 14 on Valuation addresses MOCE in detail. According to ICP 14.7, the MOCE is the difference between the valuation of technical provisions and the current estimate (CE). ICP 14.9 states the MOCE "reflects the inherent uncertainty related to all relevant future cash flows that arise in fulfilling insurance obligations over the full time horizon thereof."

While the ICPs embrace the concept of a MOCE, they indicate that it is not always necessary for the MOCE to be separately identified and reported. For example, ICP 14.7.7 states:

"[I]t may not be necessary, in practice, to determine the current estimate and the MOCE separately. The solvency regime should require any method by which technical provisions are valued to be such that the value includes an explicit or implicit margin over the current estimate. For example, a reliable market valuation by reference to a sufficiently deep and liquid market may be expected automatically to include a MOCE."

In addition, ICP 14.3.10 states:

"The supervisor should evaluate the extent to which the time value and risk adjustments add decision useful information. Where this is not the case, the disclosure requirements may be relied upon. For liabilities subject to significant litigation uncertainty, it may not be appropriate to include estimates of time value and risk in the reported liability, due to the unreliability of such adjustments."

For purposes of the following discussion, however, we assume that the issue of whether to include a MOCE *at all* remains open for debate. While the ICPs generally embrace a MOCE, the underlying rationale for MOCE has engendered considerable deliberation. As discussed above, the IAIS's stated purpose of MOCE is that it "reflects the inherent uncertainty" of the cash flows, which, for the purposes of ICS, includes two major valuation proposals: "transfer value" and "prudential."

### *Transfer Value*

With "transfer value," the MOCE represents the additional compensation that a market participant requires to assume insurance obligations. To the extent the transfer value is utilized, it becomes available capital only as the indicated MOCE declines.

Several members of the Council believe that under certain conditions the measurement objective of the transfer value proposal for the MOCE could have a role in solvency regulation, particularly for long-duration contracts such as life and disability insurance, annuities, and pensions. Those conditions include where transfer is a valid option and a sufficiently robust market for such transfers exists.

Nevertheless, there is a large part of the insurance business where these conditions do not exist, either due to regulatory restrictions on such a transfer or measurement uncertainty, which could

make the addition of a MOCE for capital standards speculative. This is the case for most, if not all, short-duration contracts.

### *Prudence*

Under the “prudence” concept, the MOCE is an adjustment to the liability value such that an entity can continue operating at a particular confidence interval or a margin that does not allow profits to be recognized at issue. However, we are concerned that prudence is already covered within the total asset requirement, which would make the MOCE redundant and irrelevant.

### **Pros and Cons of C-MOCE**

During our review of the pros and cons of a C-MOCE, we determined that it is difficult to separate the pros and cons of a C-MOCE from that of a more general approach to a MOCE. Therefore, our comments speak both to the use of the C-MOCE, as well as a general approach to a MOCE. Our comments are limited to the use of a MOCE for ICS purposes. There are additional considerations such as policyholder dividend determination that could also be taken in to consideration if the MOCE were being discussed in the context of a complete accounting system such as U.S. statutory requirements or generally accepted accounting principles (GAAP).

### *Pros*

For both a domestic or international capital standard, the inclusion of a MOCE is consistent with most major existing insurance accounting frameworks. The International Financial Reporting Standards proposals for insurance accounting, U.S. GAAP, U.S. statutory requirements, and European Solvency II, all—at least implicitly—include some form of MOCE.

In market-consistent reporting frameworks, the MOCE is typically viewed as an inherent part of the liability. A transfer value concept is typically employed in such situations, with the MOCE representing the additional compensation in excess of current best estimates required by a market participant to assume uncertain insurance obligations. Furthermore, when a liability is measured at reported market prices, the MOCE is included in the market price and it could be difficult to separate the MOCE from the CE.

### *Cons*

A MOCE involves an attempt to measure the uncertainty around an uncertain obligation, which is inherently challenging. If the “cost of capital” approach is used, it requires a projection of future capital requirements, which requires a settled and consistent economic (or required) capital framework. If the capital requirements are not “consistent and comparable” then a MOCE is unlikely to be “consistent and comparable.”

A MOCE is added to an estimate of the conceptual mean of the distribution, per the IAIS definition of CE. Utilizing a confidence interval for the MOCE valuation approach, such as Value at Risk (VaR) or conditional tail expectation (CTE), requires probability distributions of future benefits to be estimated. If the first moment of the distribution (the mean value) is highly uncertain or cannot be reliably estimated, then higher moments used in developing risk margins

or MOCEs will have even greater uncertainty, which can be particularly high for insurance liabilities that have a high risk of litigation or wide distributions.

In addition, a MOCE cannot be observed, except with regard to the policy reserves on the date the contract is first sold when, by definition, it is set to eliminate or limit any gain on issue, i.e., an “entry” value or, in effect, a transfer value. Such a value may provide market-based information about the price required to clear the market for a product with uncertain cash flows. This informational value decays over time, making it difficult to have accurate information for comparability and consistency purposes over time. There is no such “entry” value with regard to claim liabilities.

Furthermore, the MOCE cannot be retrospectively validated; hence companies may derive a range of values that is significantly wide. Therefore, a C-MOCE could be difficult to achieve.

For solvency purposes, the minimum amount of assets needed to cover liabilities may be defined by the reserves plus required capital. Under this construct, the MOCE represents an artificial and potentially unnecessary division between liabilities and capital requirements. Therefore, it may be more expedient to focus solely on consistency and comparability of total asset requirements rather than both capital requirements and MOCE.

## **BCR MOCE**

We note that there may be implications of continuing with the MOCE approach used in the IAIS’s basic capital requirement (BCR), which provides two approaches for the valuation of liabilities.

The BCR defined the MOCE for life insurance policy reserves as the difference between existing reporting requirements and the CE. For the claims reserves for non-life business, the MOCE is defined as the difference between undiscounted and discounted liabilities. Continuing with the BCR’s MOCE approach—and adding such MOCE to the CE—would therefore reproduce the reported liabilities.<sup>2</sup> Doing so would put the emphasis directly on the reported amount, independent of the CE.

The BCR’s MOCE approach could increase the ability of supervisors to rely on currently produced and audited information. For life business, the BCR defines the MOCE as the difference between the reserve reported in the audited financials and the best-estimate reserve. Because the BCR for life products is related to the audited financials, it allows reliance on the audited information. In addition, using undiscounted claim liabilities for non-life products has been supported by the Academy’s Solvency Committee in its comments to the IAIS on the ICS consultation draft.<sup>3</sup> The Committee supported this because the undiscounted claims estimates are readily available in many existing financial reporting systems, mitigating concerns related to the practicality or expense resulting from a new valuation approach.

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<sup>2</sup> Certain health products, particularly long-term care insurance and individual disability income, have liabilities that are more like life liabilities. Not all of the splits between life and non-life are absolute for health products.

<sup>3</sup> [http://actuary.org/files/Solvency\\_Committee\\_ICS\\_Consultation\\_Response\\_Final\\_020615\\_0.pdf](http://actuary.org/files/Solvency_Committee_ICS_Consultation_Response_Final_020615_0.pdf)

## **Differences in a C-MOCE Across Jurisdictions**

Although the Federal Reserve Board has only asked for feedback on the differences in a C-MOCE across jurisdictions, we believe there could be differences both within a single jurisdiction and across multiple jurisdictions.

### *Single Jurisdiction*

There are likely to be material differences in a C-MOCE among companies within the same jurisdiction due to company-by-company differences, particularly with respect to underwriting, target markets, product, claim handling, reinsurance, valuation and administration systems, and reserving philosophies, etc.

For non-life coverages within a single jurisdiction, there are currently differences in undiscounted claims estimate reliability from one insurer to another. The undiscounted claims estimate reliability can be evaluated through a runoff disclosure of how those estimates change over time for a given cohort of claims liabilities. These runoff disclosures are utilized in the required capital formula for U.S. property and casualty risk-based capital. Central estimates of liabilities are frequently calculated by averaging values developed with different methods. Adding risk adjustments to values developed with different methods could make it difficult to produce MOCE estimates that are comparable. Addressing the lack of comparable central estimates may be a higher priority than addressing the issue of a comparable MOCE.

### *Across Multiple Jurisdictions*

Differences in contract features and environment—including regulatory frameworks—between countries can make seemingly similar coverages different in their risk characteristics. For example, auto coverage in the United States and Mexico might seem similar, but the claim risk is significantly different between the two countries due to their legal systems and health care systems. Therefore, achieving comparable MOCE estimates among the participating jurisdictions will likely be difficult.

The varied assumptions about long-term basic risk parameters between companies and jurisdictions, as well as the likelihood of adverse deviation from those assumptions, may also result in differences. For example, mortality experience used to set assumptions in a large economy may be significantly more reliable than for a smaller, less economically developed country. The assumptions would necessitate a larger MOCE for the smaller economy.

## **GAAP+ Versus MAV C-MOCE**

We believe that there are potential differences in the use of a C-MOCE under the two proposed valuation approaches of the ICS: GAAP + adjustments and market-adjusted valuation (MAV) for life or long-duration products.

As discussed above, the market-consistent valuation approach, which is related to MAV, typically includes a MOCE or a “risk margin” in order to reflect the risk assessment of market participants. In theory, a market-adjusted CE can reflect capital market pricing of capital market risks, leaving only insurance risks to be included in the C-MOCE. To the extent financial and insurance risks either offset or magnify each other, the effect would be captured in the C-MOCE.

A GAAP+ approach would vary between fair value liabilities and other GAAP valuation approaches. A fair value liability is consistent with transfer value measurements. Thus, a transfer value C-MOCE would equal the excess of the GAAP liability over a CE. A prudent C-MOCE would resemble the market-adjusted valuation approach after removing explicit margins from the liability. Otherwise, GAAP+ would likely require removal of the BCR MOCE (defined earlier) from the GAAP liability before adding a C-MOCE. GAAP+ would thus require C-MOCE to reflect both capital markets and insurance risk. In many situations, the assumptions used to measure CE will be different from those used in calculating the GAAP liability. However, it is unlikely that property and casualty insurers would see much difference between these two bases, given the adjustments needed to be made to U.S. GAAP to meet the GAAP+ or MAV approaches.

## **Capital Treatment**

We believe that, for the purposes of ICS, the MOCE should be treated as Tier 1 capital as it is in the BCR. Our understanding is that Tier 1 capital is defined as capital that is readily available in the event of insolvency. Therefore, the assets backing the MOCE would have the same availability as those backing the liabilities themselves and would be considered Tier 1.

Additionally, if the Federal Reserve Board recommends changes to the MOCE approach used in the BCR to a more standardized approach, we are uncertain as to what calculations might be appropriate for life and non-life products.

For example, a fixed percentage for life products could be derived for each jurisdiction to recognize the risk of interest rate movements; however, this percentage would be a very rough approximation given the different risks that various policies have. Furthermore, it would vary substantially between jurisdictions. Even if there were a common definition (e.g., the 95th percentile), it is likely that there would be a lack of consistency in how various insurers calculate that risk.

For non-life products, there is little consistency in the risk margin used for claim liabilities in jurisdictions that require a risk margin, even when the measurement objective is clear. Therefore, we believe that the MOCE must be set equal to the amount of the discount on the undiscounted central estimate for non-life products, similar to what is already done for BCR.

## **Impacts on U.S. Insurers**

Adopting a C-MOCE in the United States may have a number of implications for domestic insurers:

- How the C-MOCE is defined and used can impact the harmonization of an insurer's IAIS valuation under ICS with that of the local solvency jurisdiction.
- Any C-MOCE will require some amount of operational cost/burden against which any benefits could be measured. It could create a costly compliance exercise with uncertain benefits, depending on the changes required for the total asset holdings to support an insurer's risks.
- A C-MOCE that is inconsistent between products can create a limited or unfair playing field between certain products or product lines.
- If a "total asset requirement" concept is employed, it is inappropriate to utilize a C-MOCE if the capital requirement does not adjust for its presence within the liabilities because it would double count the assets required to maintain solvency.

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Thank you for the opportunity to provide feedback to the Federal Reserve Board on the IAIS's MOCE proposal. If you have any questions or would like to discuss these issues in more detail, please contact Lauren Sarper, the Academy's senior policy analyst for risk management and financial reporting, at 202-223-8196 or [sarper@actuary.org](mailto:sarper@actuary.org).

Sincerely,

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cc: Jeffery S. Schlinsog, MAAA, FSA, Chair, Financial Regulatory Task Force,  
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