

May 9, 2016

Christine Thibault, Senior Analyst
Office of the Superintendent of Financial Institutions
Capital Division
255 Albert Street
Ottawa, ON
K1A 0H2

Re: Draft Life Insurance Capital Adequacy Test

Dear Ms. Thibault:

This letter is in response to OSFI's request for feedback on the proposed changes to the draft Life Insurance Capital Adequacy Test (LICAT) guidelines released on March 31, 2016.

It provides comments from members of these entities of the Canadian Institute of Actuaries (CIA):

- Committee on Risk Management and Capital Requirements (CRMCR);
- Appointed Actuaries Committee (AAC);
- Committee on Life Insurance Financial Reporting (CLIFR);
- Group Insurance Committee (GIC); and
- Practice Council (PC).

Overall, the CIA believes that LICAT represents a significant advancement of our risk-based capital framework and we support the general structure. We appreciate the effort that OSFI has put into the new guidelines and hope that our comments in this submission will be viewed as suggestions for improvement.

The attachment to this letter provides specific feedback on the working group's main area of concern using the comment template from OSFI. Our feedback focuses on the changes made to the draft LICAT guidelines when compared to the equivalent Quantitative Impact Study #7 (QIS#7) instructions. We considered the answers OSFI had already provided the CIA concerning its feedback to the previous QIS#7 instructions and limited our comments in this letter to changes that were either not addressed in our previous comments, or that we felt were not consistent with our understanding of OSFI's response to our previous comments.

Furthermore, our comments are founded on principled considerations and expert judgment; we did not have sufficient time to perform in-depth analysis to support our comments or measure the effect of OSFI's proposals on our feedback.

In closing, we thank you for this opportunity to comment on the changes to the draft LICAT guidelines. We are available to discuss any questions you may have and look forward to providing additional feedback in the future.

Regards,

A handwritten signature in black ink, appearing to read "Robert H. Stapleford". The signature is written in a cursive style with a large initial 'R'.

Robert H. Stapleford
President, Canadian Institute of Actuaries

Draft Guideline: LICAT – Comment Template

Insurer or Organization: Canadian Institute of Actuaries

Contact name: Chris Fievoli

Date: May 9, 2016

No.	Section/Subsection	Comment
1.	General OSFI vs. Autorité des marchés financiers (AMF)	<p>In our view it is highly desirable for OSFI and AMF to use consistent measures of capital adequacy. Inconsistent measures of capital adequacy will inevitably lead to confusion among stakeholders and the need for companies to provide both sets of measures.</p> <p>We strongly encourage OSFI and AMF to align their capital adequacy measures.</p>
2.	1.1.1 Total Ratio	<p>We support the general structure of the Total Ratio, with required capital (Base Solvency Buffer) in the denominator and amounts available to cover required capital (Available Capital + Surplus Allowance) in the numerator. Where capital requirements are measured by stressing best estimate assumptions, we agree that the corresponding provisions for adverse deviations (PfADs) in the liabilities should be treated as amounts available to cover required capital (i.e., added to the numerator).</p>
3.	1.1.3 PfADs “calculated under CALM”	<p>(page 4) <i>“The amount of the Surplus Allowance included in the numerator of the Total Ratio is calculated based on provisions for adverse deviations (PfADs) that are calculated under the Canadian Asset Liability Method (CALM) or any other method prescribed under the Standards of Practice of the Canadian Institute of Actuaries that is used to calculate insurance contract liabilities reported on the insurer’s financial statements, except where indicated otherwise.”</i></p> <p>Although the CIA Standards of Practice (SoP) include guidance on the choice of best estimate assumptions and margins for adverse deviations, there is no CIA guidance for the calculation of PfADs as amounts separate from the total CALM liability. This is one of the areas that will be addressed by the Actuarial Standards Board Designated Group on OSFI’s 2018 Life Insurance Capital Adequacy (LICAT DG), but the form the guidance will take (SoP, educational note, or other) has not yet been determined. Therefore, we propose the following to replace the paragraph quoted above:</p> <p><i>“The amount of the Surplus Allowance included in the numerator of the Total Ratio is calculated based on provisions for adverse deviations (PfADs) that are calculated in accordance with accepted actuarial practice.”</i></p>

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4.	1.1.3 Specific PfADs included in the Surplus Allowance	For clarity, the phrase “associated with insurance products” should be replaced with “associated with insurance contracts other than segregated fund contracts”. Similarly, “segregated fund products” should be replaced with “segregated fund insurance contracts”.
5.	1.1.3 Order of PfAD calculation	The order of PfAD calculation will matter because only certain PfADs are included in the Surplus Allowance. This will be addressed by the LICAT DG, confirming the need for the change in #3 above.
6.	1.1.3 PfADs excluded from the Surplus Allowance	<p>We believe that OSFI intended the first PfAD excluded from the Surplus Allowance to be “asset default” rather than “economic assumptions for credit spreads”. PfADs for credit spreads are included with PfADs related to interest rate assumptions, which is on the list of PfADs that can be included in the Surplus Allowance. Also, we understand that OSFI intends for asset default PfADs to be excluded, yet that item did not appear elsewhere on the list of excluded PfADs.</p> <p>For clarity, we would suggest removing the list of PfADs excluded from the Surplus Allowance, as then it would be clear to include only the specified PfADs.</p>
7.	1.1.3 Asset default provisions in the Surplus Allowance	The Surplus Allowance in the draft LICAT guideline includes none of the provisions for asset default risk (whether best estimate or PfAD) that are in the CALM liabilities. In our view, since the capital requirement for asset default risk is based on a one-year shock of asset defaults (i.e., not just defaults in excess of the best estimate default assumptions in the CALM liabilities), the Surplus Allowance should include one year of default provision (both best estimate and margins for adverse deviations (MfADs)) embedded in the CALM liabilities.
8.	1.1.3 / 6.7.1 Unregistered reinsurance	<p>The draft LICAT guideline departs from the current minimum continuing capital and surplus requirements (MCCSR) principle of treating fully collateralized risk ceded to unregistered reinsurers as equivalent to risk ceded to registered reinsurers.</p> <p>Required capital components are determined ignoring unregistered reinsurance, and Section 6.7.1 subtracts PfADs on liabilities ceded to unregistered reinsurers from the credit allowed (against the Solvency Buffer) for unregistered reinsurance deposits. Effectively, this means the PfADs on liabilities ceded to unregistered reinsurers are added to the Solvency Buffer. Section 1.1.3 indicates that “PfADs included in the Surplus Allowance are calculated net of registered reinsurance only”, which means that PfADs on liabilities ceded to unregistered reinsurers are included in the Surplus Allowance.</p> <p>Compared to registered reinsurance (where PfADs are neither included in the Solvency Buffer nor the Surplus Allowance), this treatment of fully</p>

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		<p>collateralized unregistered reinsurance significantly reduces the Core Ratio, and reduces the Total Ratio as well because the scalar multiple applies to the denominator only.</p> <p>To reflect the fact that there is no significant additional risk for fully collateralized risk ceded to unregistered reinsurers as compared to risk ceded to registered reinsurers, we recommend that PfADs included in the Surplus Allowance be calculated net of all reinsurance and the PfADs ceded to unregistered reinsurers be given credit in the Base Solvency Buffer in addition to the credit given in 6.7.1. Also, partial credit should be given if the business is partially collateralized.</p>
9.	1.1.4 Terminal provision	<p>(page 6) <i>“Insurers’ capital requirements are set at a supervisory target level that, based on expert judgment, aims to align with a conditional tail expectation (CTE) of 99% over a one-year time horizon including a terminal provision.”</i></p> <p>We understand from discussions with OSFI that the capital requirements for asset default risk and equity market risk do not include a terminal provision. This should be clarified in the LICAT guideline to help the reader understand (for example) why some of the PfADs associated with these risks are not included in the Surplus Allowance.</p>
10.	1.1.4 Scalar	<p>In the new framework, OSFI has made significant progress in developing risk-based measures of capital required based on sound principles. That work is undermined by using a scalar to calibrate to the same level of capital as the old MCCR framework.</p>
11.	1.2 Supervisory Target Core Ratio	<p>We are concerned that the Supervisory Target Core Ratio of 40% is significantly more stringent (relative to the Supervisory Target Total Ratio) than the corresponding Tier 1 target in the current MCCR regime. Two possible changes contributing to this are (i) the application of the 1.15 scalar to the Base Solvency Buffer and (ii) the removal of PfADs from the numerator of the Core Ratio. Also, PfADs are expected to be available to cover risk and hence could be given consideration in the formula.</p> <p>When the form of the Total and Core Ratios is decided, we recommend that OSFI recalibrate the Supervisory Target Core Ratio so it is not significantly more stringent than the current MCCR Tier 1 target ratio.</p>
12.	1.4.1 Opinion of the Appointed Actuary	<p>We thank OSFI for clarifying that the opinion of the Appointed Actuary is required only annually. However, before that opinion is signed, the CIA Standards of Practice require a report be prepared outlining the areas where the calculations required discretion or significant technical calculations, and the methodologies and judgments that were applied.</p>

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		<p>Also, the calculations will be subject to external audit.</p> <p>We continue to be concerned that the volume and complexity of the LICAT calculations will make it impossible to complete the calculations and the required report within the year-end time frame. We recommend that OSFI work with the LICAT DG to find a mutually acceptable solution.</p>
13.	2.1.2.6 Encumbered Assets	<p>We think the deduction for encumbered assets should not be a flat 50%, but rather should vary with the risk in the applicable jurisdiction. In particular, the factor should be different depending on whether mortgage borrowers have a legal right to residual property values or not.</p>
14.	2.1.2.8 Cash surrender value (CSV) deficiencies	<p>We believe the deduction for cash surrender value deficiencies is redundant because the risk is appropriately covered by the required capital for lapse risk. Moreover, the calculation of CSV deficiencies is not part of the CALM valuation and is cumbersome.</p> <p>We recommend that OSFI reconsider whether this deduction is still necessary given the enhancements made to the lapse capital requirements in the LICAT.</p>
15.	2.1.2.9 Negative reserves	<p>We believe the deduction for negative reserves is redundant because the risk is appropriately covered by the required capital for lapse risk. Moreover, the calculation of negative reserves is not part of the CALM valuation and is cumbersome.</p> <p>We recommend that OSFI reconsider whether this deduction is still necessary given the enhancements made to the lapse capital requirements in the LICAT.</p>
16.	3.1.1 Use of internal ratings	<p>Internal ratings are given no recognition in the draft LICAT guideline, even for companies with robust criteria for setting internal ratings. We believe this results in excessive asset default capital requirements for many securities. For example, some municipal debts are unrated. Municipalities are agents of provinces and their budgets are approved by the province but debt is not explicitly guaranteed by the province. The factor for municipal debt should be lower than the 6% that applies in the absence of a rating.</p> <p>We recommend that OSFI retain the current MCCSR treatment of internal ratings.</p>
17.	3.1.7 2.5% factor for reinsurance assets	<p>It is our understanding that the calibration of the risk charge of 2.5% on reinsurance assets arising from registered reinsurance arose as the result of a risk relativity exercise performed by OSFI which includes the application of the debt issuance loss given default assumption of 45%. We believe that the risk charge needs to be recalibrated.</p>

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		Also, we note that the CALM valuation determines the liability net of reinsurance, and there are a number of ways that the net liability might be split between the gross liability and the reinsurance asset. We recommend that OSFI work with the LICAT DG to help narrow the range of practice for determining the reinsurance asset.
18.	5.1 Interest rate risk for participating insurance	<p>We believe the interest rate risk requirement for participating insurance is significantly overstated. Participating insurance blocks of business are managed on a total return basis because there is no need to match asset and liability cash flows when investment returns are shared with policyholders. Measuring interest rate risk on the same basis as non-participating business is not appropriate. We appreciate the recent change made to reduce the floor on the interest rate risk required capital from 30% to 15%, but in many cases the floor will still be much higher than needed to provide for the true underlying risk.</p> <p>We recommend that OSFI reconsider the interest rate risk requirement for business with significant sharing of investment returns with policyholders.</p>
19.	5.1.3/5.1.4 Contractual liability cash flows	Section 5.1.3 says that “ <i>contractual</i> ” liability cash flows should be used in the interest rate risk calculation. The meaning of “ <i>contractual</i> ” in this context is unclear. However, we believe OSFI’s intentions are clarified in section 5.1.4, and so recommend removing the reference to “ <i>contractual</i> ” liability cash flows in section 5.1.3.
20.	5.1.3/5.1.4.1/5.1.4.2 Contractual asset cash flows	<p>Section 5.1.3 says that “<i>contractual</i>” asset cash flows should be used in the calculation of the required capital for interest rate risk. Contractual asset cash flows would mean applying no deduction for asset default risk—either best estimate or MfAD. This approach is reinforced in 5.1.4.2 which says cash flows should be projected without reflecting balance sheet loss provisions reported under IFRS 9, because IFRS 9 provisions would be analogous to best estimate asset default provisions (either one year or lifetime). However, inconsistent with this is section 5.1.4.2 wording that asset cash flows “<i>should be projected without reflecting the impact of CALM C-1 MfADs</i>” (only), and section 5.1.4.1 which says that assets with fixed cash flows “<i>should be projected net of investment expenses and accounting provisions for credit losses.</i>”</p> <p>We ask OSFI to clarify.</p>
21.	5.1.4.2 Liability cash flows with MfAD	Section 5.1.4.2 specifies the use of liability cash flows with MfADs for measuring interest rate risk. We do not understand the rationale for using liability cash flows with MfADs (rather than liability cash flows projected under Best Estimate Assumptions) when the goal (according to section 5.1) is to measure the “ <i>economic loss resulting from market</i>

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		<i>changes in interest rates.”</i>
22.	5.1.4.3 Projection of participating policyholder dividends	<p>The method of projecting participating policyholder dividends in the draft LICAT guideline requires an immediate replacement of a par block’s existing asset portfolio with assets yielding the LICAT base scenario forward rates. This approach severely understates the projected dividend cash flows, as it ignores the existing par assets and the investment strategy going forward. It is not a reasonable measure of the dividend room available to pass-through adverse experience of the par block. If this method persists in the final LICAT guideline, we believe that 100% of the present value of dividends calculated in this way should be allowed as par credit.</p> <p>A more realistic approach that is consistent with OSFI's objectives would be to base the dividend projection on portfolio yields including the run-off of the existing asset portfolio on Best Estimate Assumptions and assuming LICAT base scenario forward rates as new money rates for reinvestment of all future cash flows and for future returns on any non-fixed income (NFI) assets in the existing portfolio.</p>
23.	5.1.4.7 NFI assets and interest rate risk	<p>In our view, the required capital for interest rate risk will be excessive when NFI assets are used to support liabilities because the run-off of NFI assets is not fully recognized. The risk that NFI assets will not be available to fulfil the liability cash flows is covered in the equity risk component of required capital, and should not be double-counted in the interest rate risk component.</p> <p>We recommend that the required capital for interest rate risk allow for the full run-off of NFI assets reduced by the equity risk shock and assuming LICAT base scenario forward rates for future returns on NFI assets.</p>
24.	5.1.4.16 Cash flows for future income taxes	<p>Section 5.1.4.16 indicates that <i>“tax timing differences that are projected under CALM”</i> should be included in the projected cash flows for the interest rate risk component of required capital. In many cases, the impact of discounting is made through an adjustment outside the CALM models with no tax timing differences projected under CALM.</p> <p>We recommend that OSFI work with the LICAT DG to clarify the intent so that actuarial guidance can be provided.</p>
25.	5.1.4.20 Universal life (UL) projected credited rates	<p>We do not understand the intended treatment of projected UL-credited rates in bullets b) and c) of section 5.1.4.20 and ask that OSFI clarify. The reference to spreads described in section 5.2.1 appears to be incorrect.</p>
26.	6.2.3/6.3.2 Mortality/longevity	<p>The mortality/longevity trend risk shocks are expressed as a percentage increase/decrease of the Best Estimate Assumption for future mortality</p>

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	trend risk shocks	<p>improvement. This approach will result in no required capital if the Best Estimate assumption for future mortality improvement is nil, an approach that is sometimes used for practical reasons when future mortality improvement would decrease the liabilities.</p> <p>One way to solve this would be to express the mortality/longevity trend risk shocks as an addition/subtraction to the Best Estimate Assumption for future mortality improvement; however, that could be a difficult change to make at this point. A more promising alternative is to express the mortality/longevity trend shocks as a percentage increase/decrease to a common table of mortality improvement factors.</p> <p>We recommend that OSFI work with the LICAT DG to develop a practical approach that meets OSFI's objectives.</p>
27.	6.3.1 Longevity shock for non-registered annuity business	<p>Section 6.3.1 outlines the shock factors for level risk related to longevity risk. We note that the shock factor for non-registered annuity business is -20% for business in Canada, the U.S., and the UK. This is substantially higher than the shock factors for registered business (i.e., -10% in Canada, -12% in the U.S. and UK). As per the CIA individual annuitant mortality studies, we acknowledge that non-registered business tends to have lower mortality rates than registered business; however, these differences would be reflected in the best estimate mortality assumptions. Therefore, increasing the shock factor effectively double-counts the impact of the additional risk.</p> <p>In our view, though it would be reasonable to have a modestly higher shock factor for non-registered annuity business, the -20% factor should be significantly reduced.</p>
28.	6.4.1 Level shock to termination rates for STD	<p>The level risk shock to termination rates for STD is cumbersome and unnecessary because benefits are usually payable for only three to six months. The risk is adequately covered by the volatility risk component, so this shock could be removed.</p>
29.	6.4.1 Level shock to termination rates for LTD/WP	<p>In most cases, the same lives are disabled for LTD and WP benefits. We recommend that OSFI use the same level shock factor for LTD and WP to simplify the calculations.</p>
30.	6.5.2 Lapse level and trend risk	<p>Section 6.5.2 says that lapse shocks should be <i>"applied in a manner consistent with how lapse MfADs are applied for valuation purposes."</i> If this is OSFI's intent, the reference to <i>"crossover logic"</i> should be removed, as the valuation would not necessarily apply crossover logic. Also, it appears that a reference to footnote 104 should be made.</p>
31.	6.7.3 Credit for special	<p>The rationale for reducing the credit given for policyholder arrangements that provide for a full transfer of risk is unclear. If the</p>

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	policyholder arrangements	rationale is to reflect counterparty risk, then the 5% reduction for Canadian government bodies and 15% for all other appears to be overly conservative.
32.	7.2 Required capital for segregated fund guarantees	<p>Section 7.2 of the draft LICAT guideline introduces a 1.25 multiplier that grosses up the current MCCSR capital for segregated fund guarantees (in addition to the gross up from the 1.15 scalar). We believe it is premature to integrate the segregated fund guarantee risk into the LICAT regime in this way, given that the new standard approach for segregated fund required capital and the treatment of hedging is still under development (aiming for 2020).</p> <p>Further, our understanding is that OSFI calibrated the post-2010 scenarios at the supervisory level already, so no 1.25 gross-up factor should be applied to the MCCSR capital. The draft LICAT approach also appears premature as it does not address how capital determined by approved internal models would be reflected.</p>
33.	8.2.1 Business volume required capital for UL	For universal life, the comparable metric to direct written premiums is the cost of insurance charges rather than premium deposits. The premium deposit contributes to the account value, which has a separate factor applied.
34.	8.2.1 Business volume required capital for paid-up policies	We note that there is no business volume required capital factor for limited-pay individual life policies once they become paid-up.
35.	9.2.1 Condition (2) for adjustable credit	We believe that condition (2) for adjustable credit is no longer required, for the same reason that the first qualifying par criteria does not appear in the conditions for par credit in section 9.1.1. Under MCCSR, these conditions are needed because the amount of credit is a specified amount subject to the condition that there is at least as much pass-through room as the credit taken. However, under the draft LICAT, the amount of credit is a direct function of the amount of pass-through room available, making the condition redundant.
36.	9.2.2 Discount rates for adjustable credit	Section 9.2.2 says <i>“The gross adjustable credit is equal to the difference between non-adjusted cash flows and adjusted cash flows discounted using CALM base scenario rates.”</i> CALM base scenario discount rates are not well defined, so it would be preferable to use either the LICAT base scenario discount rates (section 5.1.2) or the discount rates used for the insurance risk requirements (section 6.1).
37.	9.2.2 Cap on adjustable credit	The draft LICAT guideline includes a cap on the credit allowed for (non-par) adjustable features of 50% of (marginal) required capital for insurance risks on adjustable products, with no credit allowed against

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		<p>credit and market risk requirements. The adjustable credit should reflect the risk that is expected to be passed-through to policyholders.</p> <p>Therefore, adjustable credit should be allowed for credit and market risks that are expected to be passed-through to policyholders, and no adjustable credit should be allowed for any insurance risks that are not expected to be passed-through to policyholders.</p>
38.	10.4.2 Negative reserves ceded to unregistered reinsurers	<p>Footnote 122 says <i>“no reduction of the adjusted amount is permitted for amounts recoverable on surrender.”</i> In our view, negative reserves ceded to unregistered reinsurers that are fully collateralized should be permitted the reductions of amount recoverable on surrender since collateral is similar in terms of permanency and priority as Tier 1 capital. In case of default of the unregistered reinsurer, the ceding company will take control of the collateral and from that point on, the assets will stay permanently with the ceding company.</p>
39.	10.4.3/10.4.4 70% factor	<p>We believe that the reference to tax adjustment in 10.4.3 and 75% in 10.4.4 should both have been changed to 70%.</p>
40.	10.5.2 Limit on credit for unregistered reinsurance	<p>Section 10.5.2 says <i>“R is equal to 50% of the insurer’s required capital or required margin, where the required capital or margin is calculated net of registered reinsurance only”.</i></p> <p>We ask OSFI to clarify the meaning of “required capital or required margin” in this context.</p>
41.	11.1.1 Diversification credit for life/death supported business	<p>The correlation factor for life-supported vs. death-supported business (-75%) is overly conservative. The main cause of death support on an insurance block is the existence of reinsurance, a factor that has no impact on mortality level and trend risk. Life-supported and death-supported blocks are homogeneous from the perspective of mortality level and trend risk, so the correlation factor should be -100%.</p>
42.	11.2.1 Diversification credit for lapse-supported and lapse-sensitive business	<p>The correlation factor for lapse-supported vs. lapse-sensitive business (-0.5) is overly conservative. Lapse experience for both lapse-supported and lapse-sensitive blocks has been driven by similar factors such as downward trends in interest rates, and the same distribution channels are used for all individual life insurance products. Policyholder anti-selection has only a minor impact, and is reflected in the best estimate assumptions.</p>