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# Educational Note

# Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI)



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# *Educational Note*

# Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI)



**Committee on Life Insurance Financial Reporting**
**Committee on Risk Management and Capital Requirements**

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*Members should be familiar with educational notes. Educational notes describe but do not recommend practice in illustrative situations. They do not constitute standards of practice and are, therefore, not binding. They are, however, intended to illustrate the application (but not necessarily the only application) of the Standards of Practice, so there should be no conflict between them. They are intended to assist actuaries in applying standards of practice in respect of specific matters. Responsibility for the manner of application of standards of practice in specific circumstances remains that of the members.*

# MEMORANDUM

**To:** Members in the life insurance area

**From:** Faisal Siddiqi, Chair
Practice Council

Stéphanie Fadous, Chair
Committee on Life Insurance Financial Reporting

Marco Fillion, Chair
Committee on Risk Management and Capital Requirements

**Date:** March 8, 2018

**Subject:** **Educational Note: Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI)**



This educational note applies to work in support of the LICAT Guideline published by the Office of the Superintendent of Financial Institutions (OSFI) in November 2017 and the CARLI guideline published by the Autorité des marchés financiers (AMF) in December 2017.

In accordance with the Canadian Institute of Actuaries' (CIA) Policy on Due Process for the Approval of Guidance Material Other than Standards of Practice and Research Documents, this educational note received final approval for distribution by the Practice Council on March 2, 2018.

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## 1. Introduction

This educational note provides guidance to actuaries preparing the Life Insurance Capital Adequacy Test (LICAT) of the Office of the Superintendent of Financial Institutions (OSFI) or Capital Adequacy Requirements for Life and Health Insurance (CARLI) of the Autorité des marchés financiers (AMF). These new capital standards will be effective January 1, 2018.

The objective of this educational note is to assist with interpretation of LICAT and CARLI requirements and to narrow the range of practice in application of the new capital standards.

The LICAT ratio is defined as (Available Capital + Surplus Allowance + Eligible Deposits)/(Base Solvency Buffer). These terms will be used throughout this educational note, and also apply to the corresponding components of the CARLI ratio.

Topics covered in this educational note are the following:

- Best estimate assumptions;
- Quantification of provisions for adverse deviations (PfADs) for inclusion in the surplus allowance:
    - General;
    - Economic PfADs;
    - Non-economic PfADs;
    - Tax;
    - Assets supporting PfADs;
    - Order of quantification of PfADs; and
    - Participating/adjustable insurance contracts PfADs;
- Future mortality improvement;
- Participating policyholder dividend cash flows;
- Participating and adjustable credit;
- Future credited rates on universal life policies; and
- Future income taxes.



Note that although some of these topics pertain to the valuation of policy liabilities, the guidance provided in this educational note is for the purpose of preparing LICAT and does not apply to the valuation of policy liabilities itself.

## 2. Best Estimate Assumptions

Section 1.4.4 of the LICAT Guideline defines the best estimate assumptions used to calculate the capital requirements for insurance and market risks. In general, best estimate assumptions for LICAT purposes would be the same as those used in the valuation of liabilities.

One possible exception is the assumption of future interest rates. Regardless of what the actuary considers the best estimate for valuation purposes, section 1.4.4 of the guideline

clarifies that the best estimate assumption for LICAT purposes should be the "base scenario assumptions for interest rates" as specified in the CIA Standards of Practice (SOP).

Also, there are situations where a practical simplification to the choice of best estimate assumptions in the valuation of liabilities might be inconsistent with the objectives of LICAT and therefore require adjustment for use in LICAT. Examples discussed in this educational note are policyholder behaviour assumptions (section 3.3.3), participating/adjustable guarantees (section 3.7), and future mortality improvement (section 4).

# 3. Quantification of PfADs for Inclusion in the Surplus Allowance

## 3.1 General

Section 1.1.3 of the LICAT Guideline indicates that the surplus allowance is based on PfADs calculated under the Canadian Asset Liability Method (CALM) (per SOP) used to determine insurance contract liabilities in the financial statements. Although the SOP include guidance on the choice of best estimate assumptions and margins for adverse deviations (MfADs) for many assumptions, there is little guidance on quantifying the corresponding PfADs because the separate quantification of PfADs is not required for the valuation of insurance contract liabilities. This educational note provides supplementary guidance for quantifying PfADs for inclusion in the surplus allowance.

Only PfADs in insurance contract liabilities (other than segregated funds) are eligible for inclusion in the surplus allowance. In particular, PfADs related to investment contract liabilities and service contract liabilities are not included. Correspondingly, there is no required capital component for policyholder behaviour or expense risk on investment contracts and service contracts.

## 3.2 Economic PfADs

In general, economic PfADs would be included in the surplus allowance only when the corresponding required capital component in the base solvency buffer reflects a terminal provision (versus only a one-year shock). If an economic PfAD is not listed as included in this section, it would be excluded from the surplus allowance.

Economic PfADs that are included in the surplus allowance are determined net of all reinsurance.

### 3.2.1 Risk-Free Interest Rates (included)

Paragraph 2330.15 of the SOP states that "the provision for adverse deviations for interest rate risk for both deterministic and stochastic applications would be measured as the difference between the reported insurance contract liabilities and the insurance contract liabilities resulting from the application of the base scenario".

Note that the SOP base scenario includes assumptions without MfAD for future risk-free interest rates, future credit spreads, and the investment strategy. Therefore, the interest rate risk PfAD measured per paragraph 2330.15 of the SOP includes PfADs related to future credit spreads and PfADs related to the investment strategy.

Section 1.1.3 of the LICAT Guideline specifies that only the portion of the interest rate risk PfAD that is related to scenario assumptions for risk-free interest rates should be included in the surplus allowance, measured as the following:

- The difference between the reported insurance contract liabilities and those resulting from the application of the SOP base scenario modified to include any margins on credit spreads (see 3.2.2 below) and on the investment strategy (see 3.2.3 below); or, equivalently
- The difference between the reported insurance contract liabilities and those measured with risk-free interest rates replaced with those in the SOP base scenario.

### 3.2.2 Credit Spreads (excluded)

Credit spread PfADs are excluded from the surplus allowance. Credit spread PfADs arise from both the MfAD in paragraph 2340.14 of the SOP and the modification in paragraph 2330.08 of the SOP. Therefore, in measuring the risk-free interest rate PfAD to include in the surplus allowance, the SOP base scenario credit spread assumptions would be modified to include both of these adjustments.

### 3.2.3 Investment Strategy (excluded)

Investment strategy PfADs are excluded from the surplus allowance. The only such PfAD required by SOP relates to non-fixed income assets used to support liability cash flows that are not substantially linked to returns on non-fixed income assets per paragraph 2340.20 of the SOP. However, the actuary may have applied other adjustments to the assumed investment strategy in the reported insurance contract liabilities.

In measuring the risk-free interest rate PfAD to include in the surplus allowance, the SOP base scenario investment strategy would be modified to include all such adjustments.

### 3.2.4 Inflation and Other Assumptions That Vary with the Risk-Free Interest Rate Scenario (included)

Paragraph 2330.02 of the SOP says "Each interest rate scenario would include an assumption with respect to the rate of inflation that is consistent with that scenario." The extent to which inflation varies with risk-free interest rates is an integral component of the risk-free interest rate PfAD (section 3.2.1); it is included in the surplus allowance (though not separately identified).

Other assumptions that vary with the risk-free interest rate scenario (with the exception of foreign exchange rates (see 3.2.5 below)) would be treated similarly. Examples include the following:

- Lapse (both best estimate and MfAD) and other policyholder behaviour;
- Credited rates on universal life and similar products;
- Investment income tax;
- Policyholder dividend payments (although see section 3.7 below); and
- Exercise of borrow and issuer options on fixed income assets (SOP, paragraph 2340.09).

### 3.2.5 Foreign Exchange Rates (excluded)

PfADs for the risk of changes in foreign exchange rates associated with liabilities denominated in one currency being supported by assets backed in another currency (SOP paragraphs 2340.24-.25) are excluded from the surplus allowance.

### 3.2.6 Non-fixed Income Rates of Return (excluded)

PfADs for the risk of changes in future rates of return on non-fixed income assets are excluded from the surplus allowance. This includes all PfADs arising from the application of paragraphs 2340.16–.18 (deterministic) and paragraph 2320.51 (stochastic) of the SOP.

### 3.2.7 Asset Depreciation (excluded)

PfADs for the risk of asset depreciation on fixed income assets (SOP, paragraph 2340.08) are excluded from the surplus allowance.

## 3.3 Non-economic PfADs

### 3.3.1 General

PfADs for non-economic assumptions that are included in the surplus allowance are those related to insurance risk as defined in the LICAT Guideline as follows:

- Mortality risk on life insurance;
- Longevity risk on annuities;
- Morbidity risk on disability, critical illness, long-term care and accident and sickness insurance;
- Lapse and policyholder behaviour risk; and
- Expense risk.

Subsection 2350 of the SOP provides guidance on choosing MfADs for non-economic assumptions. The PfADs included in the surplus allowance would generally be those corresponding to the MfADs chosen for the above insurance risks. Special considerations are discussed below.

Non-economic PfADs included in the surplus allowance are determined net of registered reinsurance only.

### 3.3.2 Future Mortality Improvement on Insurance and Annuities

See section 4.

### 3.3.3 Lapse and Policyholder Behaviour Risk

PfADs for lapse risk are those related to MfADs on withdrawal and partial withdrawal assumptions in SOP paragraphs 2350.25–.27.

Assumptions for anti-selective lapse are discussed in SOP paragraphs 2350.28-.31. If a portion of the increase in liability related to assumptions for anti-selective lapse is identified as PfAD, such PfAD would be included in the surplus allowance.

PfADs for other policyholder behaviour risk are covered in paragraph 2350.41–.44 of the SOP. Paragraphs 2350.41–.43 provide guidance on selecting assumptions for how policyholders will exercise the options available to them under their contract and paragraph 2350.44 describes how PfADs are included for the risk that policyholder will exercise those options to the detriment of the insurer. The educational note on the Valuation of Universal Life Insurance Contracts Liabilities contains additional guidance relevant to the quantification of PfADs for policyholder behaviour risk. Considerations include the following:

- PfADs associated with flexible premium payments could be included in the surplus allowance subject to the considerations below.
- Assumptions about the portion of policyholders who pay sufficient premium to keep in force a policy whose fund balance has declined to nil would be considered part of the LICAT best estimate assumptions with no related PfAD included in the surplus allowance.
- Any PfADs associated with the extent to which premium payments are interest-sensitive would be considered economic PfAD (see section 3.2.4) rather than policyholder behaviour PfAD.
- Assumptions about future fund transfers or allocations among funds would be considered part of the LICAT best estimate assumptions with no related PfAD included in the surplus allowance.
- The effect of anti-selection consistent with best estimate assumptions in the valuation of liabilities would be considered as part of the LICAT best estimate assumptions.

In practice, in the valuation of liabilities, a wide range of approaches to the projection of policyholder behaviour are in use. If the valuation of liabilities treats any of these items differently than suggested above (e.g., if the valuation best estimate assumptions ignore anti-selection and instead include all anti-selection in the assumptions with MfAD), the actuary would be guided by materiality in deciding whether to modify the valuation best estimate assumptions for use as LICAT best estimate assumptions and for quantifying the PfAD for inclusion in the surplus allowance.



### 3.3.4 Expenses

PfADs for expense risk are those related to MfADs on expense assumptions in SOP paragraphs 2350.39-.40.

PfADs for investment expenses are not eligible for inclusion in the surplus allowance.

The impact of future inflation on expenses would be considered an economic PfAD (see section 3.2.4) rather than an expense PfAD.

### 3.3.5 Other PfADs

Other PfADs are excluded from the surplus allowance. Examples of PfADs that are not eligible for inclusion in the surplus allowance are PfADs for operational risk, PfADs for the risk of reinsurer default and PfADs for the (lack of) recoverability of negative tax cash flows.

### 3.4 Tax

For LICAT purposes, PfADs in the surplus allowance would be quantified on a before-tax basis. That is, the PfAD would not be reduced by the amount of tax that would be paid if the PfAD were released.

### 3.5 Assets Supporting PfADs

The quantification of PfADs under CALM requires an assumption about the assets supporting PfADs.

In general, the actuary would assume that PfADs are supported by a proportionate slice of the assets backing the total liability. In practice, for blocks where the CALM liability is converted to a discounted cash flow calculation, this could be accomplished by using the same discount rates to measure PfADs as those used to measure the liability including PfADs.

In the case of closed blocks of participating insurance contracts where the PfADs related to the closed block contracts are managed in a different asset segment than the assets supporting the closed block, the company's investment policy and strategies for the investment of assets supporting the PfADs could be used to determine the assets supporting PfADs when quantifying them for LICAT purposes.

### 3.6 Order of Quantification of PfADs

The order in which PfADs are quantified matters because only some are included in the surplus allowance. In general, the approach would be consistent with that used in reporting PfADs to OSFI and AMF in the Appointed Actuary's report, with the following considerations:

- The order of PfAD calculation would be consistent from period to period unless otherwise reported.
- Non-economic PfADs would be quantified sequentially (or all together) rather than one at a time, assuming each is subtracted from the total. In other words, the sum of the individual non-economic PfADs would equal the aggregate of the non-economic PfADs.
- There would be no double-counting of PfADs.

### 3.7 Participating/Adjustable Insurance Contracts PfADs

In practice, a number of approaches to the valuation of participating and adjustable contracts are used, some of which do not easily provide the information LICAT needs. This section discusses a common example and uses it to illustrate LICAT considerations.

A common approach to the valuation of participating insurance liabilities is to assume current experience and the current policyholder dividend scale persist into the future. This is sometimes called the implicit approach, because it makes the implicit assumption that future changes in experience will be exactly offset by future changes to policyholder dividend scales (i.e., perfect pass-through).

The perfect pass-through amount is then increased to provide for the risk that experience changes might not be passed through to policyholders, through some combination of the following:

- Non-economic: use more conservative (than current experience) assumptions to project future cash flows without changing projected policyholder dividend scales, and
- Economic: discounting future cash flows at a reduced discount rate.

Note that the projected policyholder dividend cash flows in the implicit valuation will not be useful for LICAT purposes, because they are based on persistence of the current dividend scale rather than an explicit projection of future experience together with corresponding adjustments to the policyholder dividend scales. This is discussed in section 5 below.

Use of the implicit valuation approach requires validation that there is sufficient room in the policyholder dividend scale (and sufficient management resolve) to allow for the policyholder dividend scale changes (implicitly) assumed in the valuation. Policyholders' reasonable expectations are also taken into consideration. This validation might be accomplished through periodic testing using explicit projections of changes in future experience and corresponding changes in policyholder dividend scales.

When using the implicit approach, it is common to consider the perfect pass-through amount as the best estimate liability, with any amounts added above considered PfAD. However, this might be inappropriate for LICAT purposes, requiring adjustment for the following considerations:

- The LICAT best estimate assumptions and corresponding projections of cash flows would be consistent with explicit projections of future experience rather than a continuation of current experience. For example, in the current economic environment, explicit projections of best estimate portfolio yields would normally show yields declining from current levels rather than staying constant. The explicit assumptions used to validate/test the implicit approach would be a reasonable starting point for the LICAT best estimate assumptions and cash flow projections, but the actuary would consider whether any adjustments are required, for example:
  - The cost of guarantees (i.e., the inability to pass-through experience) under the SOP base scenario and valuation best estimate assumptions would be included in projected cash flows under best estimate assumptions and not included in the PfAD included in the surplus allowance.
  - It is common to ignore improvement in future experience (e.g., future mortality improvement, expense reductions) in the valuation of liabilities for simplicity, on the grounds that it provides a buffer against dividend scales running out of pass-through room. These simplifications would be adopted for LICAT purposes unless the impact is material.

Other considerations in quantifying the PfADs to include in the surplus allowance include the following:

- If there were no pass-through room available, these PfADs would be quantified in the same manner as PfADs on a non-participating policy. When there is pass-through room available, PfADs would be lower than if there is no pass-through room.

- Non-economic PfADs on par business are commonly set by increasing best estimate assumptions by 25 percent, 50 percent, or 100 percent of the MfAD that would be appropriate for a corresponding non-participating policy, without changing projected policyholder dividend scales. When adopted for LICAT purposes, the quantification of non-economic PfADs would be reasonable in light of the pass-through room available.
- Economic PfADs on participating business are often determined in aggregate, representing the inability to pass through investment experience from all sources. However, many economic PfADs are ineligible for inclusion in the surplus allowance. Therefore, for LICAT purposes, the actuary would identify a portion of the aggregate economic PfAD that is attributable to the risk of changes in risk-free interest rates; or equivalently, identify the portion attributable to the excluded items, the most significant being future non-fixed income returns and depreciation on fixed-income assets. The basis chosen for identifying the portion of the economic PfAD to include in the surplus allowance would be consistent with the information used to assess the appropriateness of the aggregate economic PfAD.

## 4. Future Mortality Improvement

The Canadian Actuarial Standards Board (ASB) has promulgated assumptions for future mortality improvement that form a minimum basis for the valuation of liabilities (document 217079). The promulgation is in the form of base mortality improvement rates with two scenarios—one with more future mortality improvement and one with less. The actuary's choice of mortality improvement assumption should result in a liability at least as high as the liability determined using the promulgated scenario that produces the higher liability.

The ASB has not promulgated the best estimate assumption for the valuation of liabilities, and in practice, a wide range of best estimate assumptions are used. For example, for blocks where future mortality improvement would decrease liabilities, it is not uncommon to ignore mortality improvement in the valuation of liabilities rather than applying a best estimate assumption with an offsetting MfAD. However, when applied to LICAT, a best estimate assumption of no future mortality improvement would lead to a nil required capital component for mortality (or longevity) trend risk, which may not be consistent with the objective of LICAT.

In such cases, where material, the actuary would consider using an explicit best estimate mortality improvement assumption for LICAT purposes. This applies both to the determination of the required capital component for mortality (or longevity) trend risk and the quantification of the PfAD for mortality improvement risk that is included in the surplus allowance.

## 5. Participating Policyholder Dividend Cash Flows

### 5.1 Interest Rate Risk Component

The LICAT Guideline section 5.1.3.3 outlines adjustments to be made to the policyholder dividend cash flows projected in the valuation of liabilities for use in LICAT.

In making these adjustments, the following considerations apply:

- Level of aggregation/blocks of business – the adjustments are made to dividend cash flows projected in the valuation of liabilities. Therefore, the level of aggregation for

determining the adjustments would be the same as that used in the valuation of liabilities.

- Level adjustments – the use of level adjustments is a practical simplification that avoids the need to reproject dividend cash flows under the initial scenario. Though LICAT section 5.1.3.3 says that the level adjustment is made to the *dividend scale*, the level adjustment could be applied to the projected dividend cash flows if desired. Also, if the valuation of liabilities uses explicit projections of policyholder dividend cash flows under various scenarios of future interest rates, the restated dividend cash flows for LICAT purposes could use the explicit projection (based on the LICAT scenario and associated asset restrictions) rather than a level adjustment.
- MfADs on assumptions – though LICAT Guideline section 5.1.3.2 indicates that liability cash flows should incorporate insurance risk MfADs, this does not mean that projected policyholder dividend cash flows would be reduced to pass through the MfAD experience.
- Dividend options – in making a level adjustment to the dividend cash flows, second order impacts of policyholder dividend options (e.g., reduced dividends lead to reduced paid-up additions which lead to reduced dividends) could be ignored.
- Balance sheet surplus – the goal of the level adjustments is to adjust projected dividend cash flows to be consistent with future investment returns equal to the LICAT initial scenario rates. This goal is achieved by maintaining balance sheet surplus as described, but could also be achieved in other ways. For example, if the liability under best estimate assumptions (but with the LICAT initial scenario rates and associated asset restrictions) is maintained and it would be expected that the valuation PfADs would be unchanged, it could be concluded that the balance sheet surplus would be maintained.

### 5.2 Insurance Risk Required Capital Components

For insurance risk required capital components, the projected policyholder dividend cash flows can be those used in the interest rate risk component (described above), those used in the CALM valuation, or those projected in the CALM base scenario.

## 6. Participating and Adjustable Credit

### 6.1 Participating Credit

Section 9.1.2 of the LICAT Guideline covers the participating credit for qualifying blocks of participating business. The participating credit is used to reduce the required capital components for the block up to defined limits.

The participating credit would not be used to reduce the required capital component associated with risks that are not passed through to policyholders—both to experience elements that are not passed-through (e.g., sometimes expense experience is not shared) and risks where only a portion of the experience is passed through to policyholders.

For example, in a qualifying block of participating business that includes surplus assets, although investment experience would be measured using all the assets in the block, the dividend scale changes would pass through to policyholders only the experience related to a

portion of the assets in the block (often called the dividend fund). Where material, the actuary would separate the required capital components for the risks that would only partially be passed through into "pass-through" and "non-pass-through" components and use the participating credit to reduce the pass through required capital component only.

### 6.2 Adjustable Credit

Section 9.2.1 of the LICAT Guideline outlines the criteria for a product to qualify for adjustable credit. Criterion 4 indicates the product is required to have sufficient flexibility to recuperate at least half of any unexpected insurance risk losses.

Criterion 4 could be applied in aggregate, using all sources of flexibility and testing against all sources of insurance risk. If so, the actuary would exclude any sources of flexibility that are directly reflected in the required capital component to avoid double-counting the benefit of flexibility. If the criterion is satisfied, the aggregate measure of flexibility can be used as adjustable credit, but it can be used only to reduce required capital components for insurance risk.

Alternatively, criterion 4 can be restricted to the particular insurance risks that are passed through to policyholders. For example, if only mortality risk is passed through to policyholders, the criterion would test the amount of pass-through room against the unexpected mortality risk losses. In this case, the adjustable credit would be used only to reduce the mortality component of required capital.

## 7. Future Credited Rates on Universal Life Policies

Section 5.1.3.20 of the LICAT Guideline provides guidance on the projection of cash flows for universal life (UL) business when determining the required capital component for interest rate risk. Cash flows for premiums, policy charges, policy benefits, and expenses require a projection of the investment (policyholder) account underlying the contract, which requires a projection of future credited rates on the investment account.

In projecting credited rates, returns on non-fixed income assets and reinvestments of fixed income assets would follow the rates in the LICAT scenario being tested. A key principle in the projection of credited rates is that the determination of the credited rate in the initial and stress scenarios would follow the same methodology that is used within the CALM valuation of liabilities, including reflection of minimum guarantees. The only difference between the credited rates in the CALM valuation of liabilities and the credited rates in the LICAT initial and stress scenarios would be the impact of differences in returns that are used to determine the credited rate. The following examples illustrate this principle:

- If the credited rate in the CALM valuation for an investment account with a five-year interest guarantee period is determined as the implied forward rate at that period of time minus 50 basis points, then this same approach would be used with the LICAT initial and stress interest rate scenario projections. For example, if the five-year forward rate under CALM at time 3 is 4.0 percent versus 3.25 percent in the LICAT initial scenario, the credited rate under CALM would be 3.5 percent and the credited rate under the LICAT initial scenario would be 2.75 percent. If there was a minimum credited

rate guarantee of 3 percent, the credited rate under the LICAT initial scenario would be 3 percent.

- For products using a portfolio average return to determine the credited rate, the returns on non-fixed income assets and reinvestment assumptions for fixed-income assets in the portfolio average return projected in the CALM valuation would be replaced with the rates in the LICAT scenario being tested to restate the credited rate.

In the interest rate risk calculation, only the assets on the balance sheet are included in the projected net cash flow and in particular, no reinvestment is assumed in the asset cash flows. However, as discussed above, reinvestment may be required to project the balance in the investment account and so the cash flows associated with the investment account can extend beyond the cash flows of the supporting assets. The cash flows used to determine required capital for interest rate risk would be internally consistent. For example, say the death benefit is equal to $100,000 plus the investment account value of say, $50,000. For the interest rate risk net cash flows projection, two approaches are possible:

i. Net cash flow includes a liability cash flow on death of $150,000 and an offsetting asset cash flow of -$50,000 for the release of the investment account value.
ii. Net cash flow includes a liability cash flow on death of $100,000, with no release of investment account value in the asset cash flows.

## 8. Future Income Taxes

Section 5.1.3.16 of the LICAT Guideline indicates that projected cash flows for the interest rate risk component of the Base Solvency Buffer should include cash flows arising from "investment income taxes and tax timing differences that are projected under CALM".

Tax timing differences projected under CALM are the future tax cash flows that would arise if the valuation assumptions (including MfADs) materialize. These same future tax cash flows would be used in all LICAT scenarios.

Note that tax differences projected under CALM include both temporary (timing) differences and permanent differences and may include amounts related to non-fixed income assets (e.g., preferential tax treatment of dividends on Canadian equities). All such differences would be included in the LICAT cash flow projections.