Seeing Beyond Risk Canadian Institute of Actuaries Institut canadien des actuaires Voir au-delà du risque

*Educational Note*

# CALM Implications of AcSB Section 3855 Financial Instruments – Recognition and Measurement

## Committee on Life Insurance Financial Reporting

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*Educational Notes do not constitute standards of practice. They are intended to assist actuaries in applying standards of practice in respect of specific matters. Responsibility for the manner of application of standards in specific circumstances remains that of the practitioner.*

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# Memorandum

**To:** All Life Practitioners

**From:** Micheline Dionne, Chairperson
Committee on Life Insurance Financial Reporting

**Date:** June 7, 2006

**Subject:** **Educational Note – CALM Implications of AcSB Section 3855 Financial Instruments – Recognition and Measurement**

The Accounting Standards Board (AcSB) has introduced Section 3855, Financial Instruments – Recognition and Measurement, which is effective for annual and interim periods in fiscal years beginning on or after October 1, 2006. The implementation of section 3855 creates some new challenges and complications for life insurance company financial reporting, particularly for actuaries responsible for measuring policy liabilities for Canadian Generally Accepted Accounting Principles (GAAP) financial statements. This note briefly describes the new accounting regime for financial instruments, identifies the issues and challenges this regime creates for valuing policy liabilities under the Canadian Asset Liability Method (CALM) and provides guidance and advice for dealing with these challenges.

Further guidance will be provided in the coming months as the Committee on Life Insurance Financial Reporting (CLIFR) reviews existing educational notes either to make them consistent with the new accounting environment or to provide for missing guidance. Existing standards and educational notes have been reviewed for potential conflicts with the new regime and only a handful will need changes, namely the educational notes on:

- Best Estimate Assumptions for Expenses,
- Approximations to CALM, and
- Future Income and Alternative Taxes.

In accordance with the Institute's policy for Due Process, this educational note has been approved by CLIFR, and received final approval for distribution by the Practice Standards Council on May 17, 2006.

This educational note is subject to subsection 1220 of the Standards of Practice (hereafter referred to as "Standards"), which says that "the actuary should be familiar with the relevant educational notes and other designated educational material," and be aware that a "practice which the notes describe for a situation is not necessarily the only accepted

practice for that situation and is not necessarily accepted actuarial practice for a different situation," and that "educational notes are intended to illustrate the application (but not necessarily the only application) of the standards, so there should be no conflict between them."

I would like to thank the members who were primarily responsible for the development of this educational note, namely, David Campbell, Byron Corner, Marc St-Jacques, Mary Stock, Phillip Watson, Robert Willis and Julie Wheeler.

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## 1. INTRODUCTION

The Accounting Standards Board (AcSB) has introduced Section 3855, Financial Instruments – Recognition and Measurement, which is effective for annual and interim periods in fiscal years beginning on or after October 1, 2006. For federally regulated financial institutions, Section 3855 paragraph 19(f)(ii) is supplemented by the Office of the Superintendent of Financial Institutions (OSFI) Guideline D-10, which provides important application guidance for using the so-called Fair Value Option.

The AcSB also introduced two other new sections that are related to Section 3855; namely Section 1530, Comprehensive Income and Section 3865, Hedges. These other two sections are also dealt with in this educational note. Section 4210, Life Insurance Enterprises – Specific Items, is replaced by Section 4211 post-3855, and AcG-9, Financial Reporting by Life Insurance Enterprises has been amended to integrate properly with the above-mentioned new sections. The actuary is encouraged to review these revised sections as well to understand the full package of changes to accounting standards affecting life insurance companies.

Section 3855 gives life insurance companies choices for designating their financial assets and financial liabilities, each option with different measurement and recognition requirements. The section does not include life insurance policies[1] as financial liabilities from the perspective of the issuing life insurance company, with the exception of certain financial reinsurance arrangements. This means that life insurance policies will continue to be valued and accounted for under the Canadian Asset Liability Method (CALM).

The implementation of Section 3855 creates some new challenges and complications for life insurance company financial reporting, particularly for actuaries responsible for measuring policy liabilities for Canadian Generally Accepted Accounting Principles (GAAP) financial statements. This note briefly describes the new accounting regime for financial instruments, identifies the issues and challenges this regime creates for valuing policy liabilities under CALM and provides guidance and advice for dealing with these challenges.

## 2. PRE-3855 AND POST-3855 REGIMES, A BRIEF OVERVIEW

CALM is defined by the Standards of Practice of the Canadian Institute of Actuaries (CIA) and various supplementary documents (educational notes, research papers and Committee on Life Insurance Financial Reporting (CLIFR) guidance) which amplify or clarify aspects of the Standards. The principles of CALM will remain unchanged.

CALM adapts well to changes in asset side accounting because of the prescribed linkage between the value of the policy liabilities and the accounting value of the supporting assets. Generally speaking, the amount of the policy liabilities equals the amount of the supporting assets at the balance sheet date which are forecasted to reduce to zero at the last liability cash flow under a scenario or at a level of conservatism such that the amount is sufficient without being excessive.

[1] Life insurance policies in this context include all forms of policies issued by life insurance companies including annuities, disability income policies, segregated fund annuities, critical illness policies, individual health policies, group life & health policies, and so forth.

## 2.1 Pre-3855 Situation

### 2.1.1 Asset Accounting

In general, asset accounting values under this regime are stable and based on historical cost (in part). Realized gains or losses are deferred and amortized. For stocks and real estate, unrealized gains or losses are gradually recognized.

### 2.1.2 Liability Accounting

CALM is defined by the Standards of Practice of the Canadian Institute of Actuaries and various supplementary documents (educational notes, research papers and CLIFR guidance) which amplify or clarify aspects of the standards.

## 2.2 Post-3855 Situation

### 2.2.1 Asset Accounting

The important change is that the value of an asset (including a derivative) and the investment income reported for it will depend on the categorization of the asset into one of five buckets – Held to Maturity (HTM), Loans & Receivables (Loans), Available for Sale (AFS), Held for Trading (HFT) including the Fair Value Option (FVO) [Fair Value Option is the term used herein for assets designated for fair value accounting as per paragraph 3855.19 of the Accounting Handbook.] and Real Estate (RE). These classes are described in more detail in Appendix A.

Certain of these buckets are not attractive for assets supporting policy liabilities because of the conditions attached to these asset classes (e.g., portfolio tainting occurs if a HTM asset is sold and, for AFS, there is different treatment of gains and losses for income statement and balance sheet purposes). The FVO designation will likely be the preferred one for financial instruments backing policy liabilities – see the conditions for designating an asset using the FVO in Appendix A.4. Note, however, that for HFT and FVO, both asset values and investment gains and losses can be quite variable compared to the pre-3855 regime.

Note also that realized gains and losses from sale of financial instruments are recognized immediately, which is a change from the pre-3855 regime.

### 2.2.2 Liability Accounting

Insurance policies, with the exception of certain financial reinsurance, will not be classed as financial instruments. [Note: The CIA plans to issue separate guidance with respect to reinsurance and, in particular financial reinsurance.] They will continue to be accounted for in accordance with Life Insurance Enterprises – Specific Items, Section 4211 (i.e., status quo). Note that a life insurance company may have non-policy financial liabilities, like subordinated debt, which will be subject to Section 3855.

### 2.2.3 Hedge Accounting

Section 3855 requires all financial derivatives to be brought on balance sheet at fair value. This is a significant change from the pre-3855 regime which classified these financial instruments as off balance sheet when used in designated hedging relationships. Section 3865 is optional and allows for hedge accounting in certain situations. It is

unlikely to be used by a life insurance company in hedging policy liabilities because the FVO allows non-derivatives (i.e., cash instrument hedging) to be subject to fair value accounting.

There is no need for a life insurance company to test and demonstrate effectiveness of hedges as per Section 3865 except as required to qualify a non-derivative hedge for FVO. Any ineffectiveness of a derivative-based hedge is immediately recognized in income under fair value accounting. This is appropriate and provides a heightened level of transparency and disclosure. It may be valuable and appropriate for the notes to the financial statement to provide additional information to allow the reader to understand how much of the change in the value of hedges is offset by corresponding changes in the policy liabilities.

### 2.2.4 Other Comprehensive Income

Section 1530 of the Accounting Handbook defines Other Comprehensive Income (OCI). This is described by some as a second income statement for items such as unrealized gains and losses. This can have important implications for life insurance companies given that the entire change in the policy liabilities is booked to regular income even if a portion of this change is attributable to OCI-related items. Section 4.3 below, which deals with AFS-related challenges, provides guidance with respect to the most important implications of OCI accounting from the actuary's perspective.

## 3. ISSUES AND CHALLENGES RESULTING FROM SECTION 3855

The key issues and challenges created by Section 3855 are as follows:

- **Held for Trading (HFT) including Fair Value Option (FVO):** Assets classified as HFT or FVO will be marked to fair value, which may result in asset values and investment gains and losses of these assets being volatile. Given the fact that CALM is usually tested off valuation dates, with a Policy Premium Method (PPM) type calculator being used to approximate the CALM result at the balance sheet date, there is a need to develop an effective true-up process so the policy liabilities reflect the statement values (fair values) of assets classified as HFT or FVO at the balance sheet date. The ability to demonstrate the completeness and appropriateness of this approximation and for it to be auditable are critical. The actuary is referred to the educational note titled "Approximations to Canadian Asset Liability Method (CALM)" for additional guidance.
- **Practical Issues:** The sub-classifications of invested assets may create record-keeping difficulties. For example, for dual reporters – particularly entities reporting both Canadian (CGAAP) and US GAAP – it may be best or desirable to classify an asset differently in one regime than the other. This may not be possible with existing asset administration and accounting systems or may increase the possibility of errors. The actuary will need to introduce additional checks and controls to ensure the correct statement values are picked up in setting and reconciling policy liabilities and changes in policy liabilities.
- **Available for Sale (AFS):** This classification poses significant challenges if used for assets backing policy liabilities. If the quantum of AFS assets backing policy liabilities is material, then there will be a disconnect between the change in the policy

liabilities charged to income and the investment income credited to income, which results in income variability and difficulties explaining results. This may cause the actuary to issue a qualified opinion.

- **Policy Liabilities at Cost (term of liability equals 0 or no discounting):** Certain elements of the policy liabilities have traditionally been measured or calculated based on smooth(er) historical cost-based accounting values. Some of these items must be reported on a prescribed basis (e.g., amounts on deposit are reported at their accumulated value regardless of the value of assets supporting them). This did not create a problem in the pre-3855 regime but there will be an accounting mismatch in the post-3855 regime if matching asset values are volatile with the volatility varying depending upon the designation of the asset (AFS, HFT or FVO designations).
- **Future Taxes**: The asset accounting changes will result in new tax timing differences (i.e., ones that didn't exist in the pre-3855 regime) which will need to be valued. This may complicate the determination of the value of tax differences.

## 4. GUIDANCE AND CONSIDERATIONS

### 4.1 Data

Subsection 1530 of the Standards of Practice provides recommendations and guidance with respect to data.

The integrity of the liability data derived from the policy administration systems is not likely to be affected by fair value accounting for assets. It may become more difficult to validate the statement values of assets, though, under Section 3855.

Pre-3855, the statement value of an asset measured at amortized cost was predictable, with any differences between actual value and an estimate of that value made at an earlier point in time being explained by pre-payments or credit provisions. This predictability provided a check on the statement values for particular assets. Under fair value accounting the statement value of the instrument is not predictable, and becomes a prospective measure that is not tied to the stability of a fixed purchase price.

It may also be a much more challenging exercise to confirm the completeness and accuracy of the asset data post-3855. There are at least two complications:

- Pre-3855, there was a one-to-one mapping between asset type and accounting measurement. This is no longer the case post-3855. The correct designation (HTM, HFT, AFS and so forth) of every asset is very important.
- Book yields[2] may be much more variable from period to period. This may mean that simple continuity checks on the change in the book yield[2] of the matching portfolio no longer suffice as an adequate check on reasonableness.

The actuary is encouraged to work closely with those responsible for asset administration and accounting to make sure the classification process and coding is understood and to develop appropriate additional checks and controls on the asset data that is being used in

[2] Book yield is being used herein to describe the rate which equates the current statement value of an asset to its future cash flows. This yield will differ from the traditional measure of book yield which is based on purchase price.

the valuation. For example, the actuary would need to understand how fair value is determined for private bonds for which there is no established market and for assets with uncertain cash flows (callable bonds, for example). Fair values would be defined by written policy to facilitate controls on the movement of asset values. The actuary would also understand the timetable for updating fair values. See Section 4.6 below for other comments about Controls.

### 4.2 HFT and FVO Volatility: True-ups and Approximations

In theory, CALM is perfectly compatible with HFT or FVO designated assets. If the CALM analysis can be run on the balance sheet date using up-to-date asset and liability files and values, then the process of establishing the policy liability has all of the normal challenges but no new ones in the post-3855 world. However, for practical reasons, CALM roll forward analysis may need to be run off balance sheet date with an approximation used to estimate the policy liabilities at the subsequent balance sheet date. This approximation often takes the form of a PPM-style discounted cash flows methodology (liability side cash flows only). If the actuary decides to continue to use this type of approximation post-3855, then new additional controls are likely necessary to ensure that the true-up to the balance sheet date is materially accurate so that the overall approximation methodology is acceptable (produces a materially accurate estimate). This is not a straightforward exercise and will require some testing to make sure the process for determining the change in fair values from the CALM testing date to the balance sheet date is well designed and produces an understandable and acceptable result. Section 4.6.2.5 of this note provides guidance with respect to PPM true-up controls.

The relevant subsections of the Standards of Practice are subsections 1750 (Comparison of Current & Prior Assumptions), 1510 (Approximations) and 1340 (Materiality). The Approximations to CALM Educational Note provides useful guidance.

### 4.3 Available For Sale (AFS)

AFS designated assets are marked to fair value on the balance sheet. The regular investment income for these assets – dividends, bond coupons, amortization of premiums or discounts, and so forth – is booked to the income statement whereas unrealized gains or losses are booked to Other Comprehensive Income (OCI). The latter is considered by some to be a second income statement for certain kinds of unrealized gains and losses. Unless there are additional disclosures, this bifurcation of the "investment income" of an AFS asset between regular income and OCI may result in the financial statements misleading the reader given that the change in policy liabilities, which is entirely booked to regular income, will reflect all aspects of the change in any AFS-designated assets backing these policy liabilities.

It may be best for management not to designate assets backing policy liabilities as AFS. Keep in mind, however, that while it may be possible to keep assets backing policy liabilities AFS-free at the outset, future activities may result in some AFS-designated assets forming part of the portfolio matching policy liabilities at a later date. [For example, suppose management initially decides to designate only assets backing surplus as AFS. Some of these assets may eventually end up matching policy liabilities as a result of rebalancing which is required in the normal course of events (e.g., the actuary

strengthens assumptions which means more assets need to be allocated to match these policy liabilities, some of which come from the surplus account).]

### 4.3.1 Income Statement Mismatch

The mismatch issue is described above in 4.3. The end result is that regular income will be "understated" to the extent that there was a net unrealized gain during the period with respect to the AFS-designated portfolio backing policy liabilities and "overstated" otherwise.[3] The "understatement" or "overstatement" reflects the fact that the movement in the policy liabilities booked to regular income is inconsistent with the investment income booked to regular income. Overall, the balance sheet and capital account is correct because the change in OCI offsets the "misstatement" of regular income.

#### *4.3.1.1 Materiality*

Any AFS-related mismatch is not an issue if the amount of AFS-designated assets supporting policy liabilities is not material. Please refer to subsections 1750 (Comparison of Current & Prior Assumptions), 1510 (Approximations) and 1340 (Materiality) of the Standards of Practice for guidance.

#### *4.3.1.2 Disclosing Results*

The actuary needs to be of the opinion that the Financial Statements "… fairly present the results of the valuation." [SOP 2140.17] In this context, the notes form part of the Financial Statements and would be taken into consideration by the actuary in forming his or her opinion. This is made clear by paragraph 2140.08 of the standards. If the notes disclose the AFS mismatch and provide adequate information to allow a reader to understand the issue, this is very likely to be sufficient to achieve the requirement of "fairly presented."

We recommend that the actuary work with management to ensure adequate and sufficient disclosure in the notes to the financial statements with respect to AFS. This may include a brief description of the mismatch issue as well as disclosure of the portion of the unrealized gain/loss allocated to OCI that relates to AFS-designated assets backing policy liabilities and explanation of the impact on regular income and/or OCI during the period.

### 4.3.2 Qualified Opinions

The actuary may determine that the notes disclosure, if any, is insufficient or inadequate to adequately inform the reader with respect to any AFS mismatch. In this case, the actuary may decide that a qualified opinion is required. Such a qualified opinion might include an explanation of the mismatch issue along with disclosure of the size or importance of the mismatch. Paragraphs 2140.07 to 2140.10 inclusive of the standards provide guidance with respect to disclosure of unusual situations.

[3] There is a possible interpretation of the Standards of Practice that would lead the actuary to adjust the policy liabilities for the amounts included in Other Comprehensive Income which result from assets backing the policy liabilities. It is CLIFR's view that this is not the intended meaning of the standards. Changes may be needed to the Standards of Practice to make this aspect of the standards clearer.

### 4.4 Asset and Liability Mismatches

There are situations when the value of the policy liabilities does not respond completely to changes in the value of the matching assets. This is the case when the term of the liabilities is determined to be very short, possibly zero years, and management decides to match with longer duration assets. (Guidance on determining the term of the liabilities is provided in paragraphs 2320.16 to 2320.27 inclusive of the Standards of Practice.)

This could be the case for medical and dental incurred but not reported (IBNRs) claims and outstanding death claims for which a company might typically hold the amount expected to be paid (net of reinsurance recovery) without any interest adjustment. From an Asset Liability Management (ALM) perspective, management may choose to invest longer than the term of the liabilities, in which case, the change in the policy liability during a period may not match the change in the value of the assets supporting it if those assets are designated AFS, HFT or FVO. Such income statement mismatch is a choice management has made. It can avoid it by designating the assets HTM, by matching with loans (mortgages) or by using short-term instruments that are not susceptible to wide swings in value. Management would normally be expected to explain the contribution to income variance of its matching strategy if the impact in a period is material.

Another situation requiring special attention is a liability relating to life insurance policies that must be reported as a separate line item within the balance sheet. Such an accounting presentation requirement does not relieve the actuary from the duty of ensuring that there is sufficient and appropriate provision for these liabilities on the balance sheet. Guidance with respect to integrating the valuation with the accounting policy is provided in the Standards in paragraphs 2130.10 to 2130.17 inclusive. They indicate that regardless of how the liabilities are reported, the actuary has a duty to ensure completeness and no double-counting. In particular, paragraph 2130.16 says that the actuary "would, for example, ensure that the policy liabilities provide for any risk of asset depreciation (C-1 risk) and of interest rate change (C-3 risk) for any deposit liabilities which the actuary did not value and which are separately reported without such provision."

By way of example, suppose that the actuary has determined that the term of the liabilities for certain dividends on deposit is the same as the term of the liabilities for the related participating whole life insurance policies. The actuary would then value the dividends on deposit as a component of the cash flows of the participating policies making appropriate assumptions for credited interest, accumulated dividend withdrawals and so forth. The end result following CALM testing would be the appropriate policy liability for the participating policies including provision for the dividends on deposit. The mandated presentation requirement would then result in the accumulated value of the dividends on deposit being reported as a separate line item with the balance of the policy liability determined as above being reported as part of the provisions for future policy benefits line in the balance sheet.

### 4.5 Future Taxes

Guidance with respect to future taxes is provided in paragraphs 2320.42 to 2320.48 inclusive of the Standards of Practice as well as the Future Income and Alternative Taxes Educational Note.

Section 3855 may create additional tax timing differences, particularly on the asset side of the balance sheet. If these timing differences relate to assets backing policy liabilities, then the actuary needs to model and measure the value of these timing differences as part of the valuation of policy liabilities. Fair value asset accounting affects the projection of future CGAAP policy liabilities for the calculation of the Future Tax Reserve, making it more complex especially when a PPM-type approximation is used.

In some simple cases, where all the necessary information (and segmentation) is available, the current standards can be applied. However, some timing differences on the liability side will be directly offset by timing differences on the asset side. In these cases, it is important for the actuary to ensure that an appropriate linkage exists between the asset and liability timing differences and that the calculations are not independent of each other.

In most cases, information will be limited by:

a) lack of segmentation of assets between Pre-1996 and Post-1995 liabilities,

b) lack of information about the tax value of assets matching policy liabilities,

c) unusual impacts caused by the change in the worst CALM scenario,

d) practical issues of projecting policy liabilities given all of the above. In some instances, it may not be possible to exactly project future tax impacts, and

e) issues of projecting policy liabilities in a reasonable quarter-end timeframe.

These items need to be considered in the calculation. In some cases, where information is limited or the calculations are onerous, it is appropriate for the actuary to use an approximate method to arrive at the liability for future timing differences. This method may or may not be dependent on the worst CALM scenario.

## 4.6 Controls

### 4.6.1 Introduction

This section of the educational note covers the controls on data and reporting that may be affected by the introduction of fair value accounting. The purpose of controls is to ensure that the financial information being prepared is accurate and consistent period over period. The controls would ensure that any differences in the policy liabilities period over period are explained by a combination of expected theoretical changes in the policy liabilities and the impact of experience.

### 4.6.2 Controls

Controls that are currently used by the valuation actuary in the preparation of actuarial results include:

- policy liability trend analysis;
- policy liability roll-forward;
- policy liability movement analysis;
- analysis of changes in book yield[2];

- analysis of changes in duration;
- asset movement analysis;
- inclusion controls.

New controls that may be used in a fair value accounting regime include:

- comparison of estimated fair values (produced using the CALM calculator) to statement values (from the accounting system);
- real-time analysis of asset movements;
- controls on manual adjustments to system-produced policy liabilities to account for asset value movements during the quarter.

#### *4.6.2.1 Trend, Roll-forward & Movement Analysis*

Policy liability trend analysis looks at the historical pattern of the change in policy liabilities quarter over quarter for unexplained increases or decreases. This analysis may continue to be of value if it is conducted in such a manner as to exclude the effect of fair value changes. This might be achieved by excluding realized and unrealized investment gains and losses from this analysis or by trending a stable PPM-type measure of the policy liabilities, i.e., also calculate a PPM policy liability each quarter-end using a consistent interest rate assumption and trend this measure.

Under a policy liability roll-forward, the policy liabilities at the start of the period are rolled forward to estimate the policy liabilities at the end of the period, with each step in the roll-forward identified in a separate category. Commonly used categories include the effect of new business, terminations from death or lapse, aging of the reserves for persisting lives, changes in assumptions or methods, impact of new reinsurance treaties, mergers and acquisitions and currency adjustments. The impact of the change in the fair value of any AFS, HFT or FVO designated assets backing the policy liabilities would be captured and identified as a separate category post-3855. This latter category is especially important in a fair value accounting regime because of the potential variability of unrealized gains and losses.

In movement analysis, all pieces of the change in policy liabilities are identified separately through a decomposition of the total change. This decomposition also provides the building blocks for the comparison of actual to expected experience that makes up the Source of Earnings analysis.

#### *4.6.2.2 Yield & Duration Analysis*

One of the ways in which the valuation actuary established the consistency of the CALM policy liabilities from quarter to quarter was by comparing the book yield[2], both in aggregate and by asset class. In an established portfolio, the portfolio book yield[2] would have tracked long-term reinvestment trends in the portfolio, and the book yield[2] by asset class would have been stable quarter over quarter. Under fair value accounting, the book yield[2] will no longer be based on the (fixed) purchase price, and this yield will no longer be stable (at least not for HFT or AFS designated assets). The yield by asset class would be reflective of the current yield curve for the particular fixed income asset (if designated

HFT or AFS), and the control may be effective if changed to verify that relationship. The movement in the overall portfolio yield will be more difficult to validate.

If duration calculations are currently done using market yields for the assets they will not be much affected by the introduction of fair value accounting. If book yields[2] are used for the duration calculation then fair value will add an additional source of volatility. This extra volatility is not likely to be significant unless the asset and liability portfolios are materially mismatched.

#### *4.6.2.3 Inclusion Controls*

Liability inclusion controls would not be affected by fair value accounting for assets, as they only consider the records going into and out of the valuation system. Fair value accounting may make it easier to see whether or not interest rate swaps have been included in the asset file, as there will be a non-zero value for a swap that formerly was carried off balance sheet.

The segmented balance sheet is an important check on the integrity of the CALM policy liability. The balance sheet would be prepared at the CALM modeling segment level, and would be reconciled to the asset-liability models used in the CALM analysis. The values on the balance sheet will of course change with fair value accounting, but the reconciliation of the balance sheet to the projection model would be very similar.

#### *4.6.2.4 Reasonableness of Fair Values*

The comparison of estimated fair values calculated internally in the asset-liability projection system to statement values provides a check that may replace the data integrity check in the paragraph above. The actuary would not, however, expect the estimated fair value to match the statement value exactly. Rather, this control will be a screen that will identify outliers for further investigation.

The estimated fair value of a fixed income asset is typically the present value of the asset's projected cash flows using a discount rate defined by the user, usually the current market yield curve for the particular asset type and asset quality rating. There may be subtleties of creditworthiness that factor into the assessment of an individual holding's statement value that will not be captured by the yield curve assumptions embedded in the projection model. The estimated fair value may also not reflect imbalances in supply and demand.

The follow-up review and analysis would focus on those assets for which the difference between the estimated fair value and the statement value exceeds a pre-set tolerance.

#### *4.6.2.5 True-up Controls for PPM Approximation Practices*

Pre-3855, the balance sheet value of most fixed income assets was stable quarter to quarter. The CALM policy liability, which was the statement value of the assets exactly supporting the liabilities, was in most cases also stable if it was backed by fixed income assets. Any changes to the underlying asset cash flows, resulting from changes in credit rating, trading activity or the establishment of credit provisions, affected the policy liabilities. If these events tended to be relatively uncommon and small in magnitude, management might have deferred recognition of them in the policy liability calculation until the next time a full CALM asset-liability projection was run.

Under fair value accounting, however, the statement value of all of the fixed income assets designated AFS, HFT or FVO will move from quarter to quarter if the yield curve changes. If the movement is not offset in the policy liabilities, it will add to the volatility of earnings. Because most companies are not able to prepare a complete asset-liability projection model in time to calculate and book a CALM-based policy liability, they will need to develop controlled processes for approximating the effect on CALM policy liabilities of fair value movements. Possible controls include a rerunning of the previous period CALM asset-liability projection model with the current yield curve, and the recalculation of the market values using the updated yield curve information. These values will be proxies for the current period fair values.

Holdings of non-fixed income assets will need to be assessed separately. These assets may be more manageable as they are not usually modelled on a seriatim basis, but rather grouped as an asset class (for example, common stock, real estate, equity-like preferred stock).

If the policy liabilities are adjusted manually for the movement in the fair value of assets in the quarter, this could be the largest non-system adjustment to the policy liabilities. The adjustment process would be well documented, as it will be a high profile item in any audit of valuation practices, and would be repeatable quarter over quarter. The control would, at a minimum, identify the sources of the values used for the adjustment, the ways in which changes in the inforce volumes are accounted for, and who has reviewed and confirmed the manual adjustment.

#### *4.6.2.6 Source of Earnings*

The Source of Earnings (SOE) analysis is a good tool to help explain the earnings, and its usefulness under fair value accounting would be enhanced by the addition of a few extra detailed lines that might not be present today. For example, the detailed SOE analysis might be modified to add a line for the total movement in fair value of assets and a subtractive line for the asset movement required to support policy liability changes. The difference between the two, representing the movement in asset values that is not reflected in the change in the policy liabilities, will show up in the net income.

### 4.7 Reporting and Disclosure

Fair and comprehensive disclosure is critically important to presentation of understandable financial statements. The actuary has an important role to play in ensuring that the policy liabilities, the change in the policy liabilities and the relationship of the change in the policy liabilities to the matching assets and investment income from matching assets is effectively disclosed and explained. In addition to the disclosures mentioned above, to assist understanding of AFS-related income mismatches, if any, it is recommended that the notes to the financial statements include a breakdown of the assets backing policy liabilities by asset type and asset accounting designation.

## APPENDIX A.1

## HELD-TO-MATURITY

There must be a positive intention to hold to maturity. The security must have determinable cash flows (e.g., common stocks cannot be classed as held-to-maturity).

Pros

- Accounting treatment is essentially as per pre-3855 (for bonds, debentures and private placements) – see 3855.59. This means that the current processes and practices for CALM will continue to work well for assets classed as Held-to-Maturity.
- Definition and conditions for this class appear to be identical or essentially identical to US GAAP (so less possibility for confusion and operational error or record-keeping issues if institution reports both CGAAP and US GAAP)

Cons

- Sale or reclassification of more than an insignificant amount of held-to-maturity (other than for certain listed exceptional reasons – see 3855.24) results in all held-to-maturity being reclassified as available for sale for at least two years (3855.72A & 3855.24). This can result in a discontinuity in investment income (3855.67 (b)). This tainting/reclassification aspect of held-to-maturity is considered a major impediment to using this classification. It reduces flexibility in managing the portfolio for rebalancing or strategic benefit (or at least, it creates significant reporting challenges if asset sales/redeployment become attractive).

## APPENDIX A.2

## LOANS AND RECEIVABLES

This class includes mortgages and other loans that are not debt securities (see 3855.30A and .30B).

Unless designated as HFT (see Appendix A.4), the post-3855 requirements are the same as the pre-3855 requirements for these assets except that realized gains/losses are recognized immediately.

## APPENDIX A.3

## AVAILABLE FOR SALE ASSETS

Assets designated as Available for Sale (AFS) will be carried on the balance sheet at fair value and changes in fair value will be recorded as Other Comprehensive Income (OCI) not regular net income in the income statement.

Issues/Challenges with respect to AFS assets:

- This does not reflect the unique manner in which investment and actuarial liability book values are linked under CALM. The main issue is the lack of a shadow adjustment in the actuarial liabilities that goes through the OCI instead of the regular P&L. This is not consistent with the current linkage concept between actuarial liabilities and investments under CALM and 4210. This could potentially prevent Appointed Actuaries (AAs) from signing a standard clean opinion. This will result in confusing income statements.
- If under CGAAP assets are designated as HFT to avoid the above problem posed by the AFS designation this might create inconsistencies where the same assets are designated as AFS under US GAAP, adding complexity to record-keeping.
- A practical issue is the timing with respect to the CALM testing and the incorporation of the fair value of assets at the statement date. The common practice is to perform CALM testing prior to the statement date (typically one quarter prior) to establish a C-3 margin or valuation interest vector that is then applied similarly to PPM at the statement date. This method will not reflect the fair value of assets at the statement date and will require an additional step to be added to reflect the asset fair values at the statement date. It will also introduce complexities in determining tax differences.
- Items such as amounts on deposit, policyholder dividends and products that are credited a portfolio yield are determined using "smoother" cost values. These amounts will be more volatile if the methodology reflects the fair values of AFS. If the current "cost" based methods continue to be utilized there will be a disconnect between the assets and these values.
- Reporting and disclosure challenges will emerge (i.e., difficulty explaining the unusual income results which may occur).

## APPENDIX A.4

## HELD FOR TRADING INCLUDING FAIR VALUE OPTION

Balance sheet reporting: Fair value

Income reporting: Regular income

Any financial instrument which satisfies the classification requirements described below may be designated as HFT or FVO, except for:

- Financial instruments for which fair value cannot be reliably measured;
- Financial instruments transferred in a related party transaction that were not classified as HFT before the transaction; and
- Loans and receivables to small companies (annual gross revenue below $62.5 million) or to individuals.

Classification requirements:

a) Held for Trading (HFT)

- Derivatives must be designated HFT, unless designated and accounted for as part of a hedging relationship
- Financial instruments that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking

b) Fair Value Option (FVO)

- Any financial instrument may be designated as FVO at time of first recognition, regardless of whether the entity intends to trade it or not, subject to the following conditions:
  - It eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as "an accounting mismatch") that would otherwise arise from measuring assets or liabilities or recognizing the gains or losses on them on a different bases; or
  - A group of financial assets, financial liabilities or both is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the group is provided internally on that basis to the entity's key management personnel, for example the entity's board of directors and chief executive officer.

HFT is probably the most attractive classification for most securities allocated to match policy liabilities. If a company chooses to do this, it would:

- resolve the current issue of differences in the values of publicly traded assets between one financial institution and another, and
- avoid OCI issues.

There are a number of potential issues and challenges with this solution, namely:

1. The challenges of designing and maintaining an effective true-up process if a PPM-type approximation is being used.
2. Some insurers will choose to designate assets backing surplus as AFS to avoid volatility. Eventually, movements to and from surplus will cause contamination and there is no opportunity to reclassify AFS as HFT.
3. Some companies have expressed concern that designating all securities as HFT is impractical, because it will lead to situations where the same asset is classified differently for US GAAP and Canadian GAAP purposes. [In US GAAP, an entity must have the intention of trading a non-derivative asset to classify it as HFT but this is not required under Section 3855.]
4. Section 3855 does not require HFT classification, except for derivatives and those financial instruments that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking. Thus it does not prevent companies from using AFS assets to support liabilities if there might be an apparent advantage to do so.
5. There will be line item volatility in the balance sheet and income statement although much of it offsetting [(to the extent the HFT assets match policy liabilities which move with the value of matching assets (i.e., not the case for Deposit Liabilities)].

## APPENDIX A.5

## REAL ESTATE

Same accounting as the pre-3855 regime (i.e., moving to market) as per section 4211.