Canadian Institute of Actuaries
Institut canadien des actuaires

EDUCATIONAL NOTE

Considerations in the Determination of the Actuarial Liabilities of Canadian Charitable Gift Annuities

May 16, 2024

Considerations in the Determination of the Actuarial Liabilities of Canadian Charitable Gift Annuities

Actuarial Guidance Council

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Ce document est disponible en français.

The actuary should be familiar with relevant educational notes. Educational notes are not binding; rather they are intended to illustrate the application of the standards of practice. A practice that an educational note describes for a situation is not necessarily the only accepted practice for that situation nor is it necessarily accepted practice for a different situation. Responsibility for ensuring that work is in accordance with accepted actuarial practice lies with the actuary. As accepted actuarial practice evolves, an educational note may no longer appropriately illustrate the application of standards.

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Preamble

This educational note pertains to the valuation of gift annuities issued by Canadian charities. The purpose of the educational note is to establish an appropriate range of practice in the valuation of these gift annuities, taking into account recent changes in actuarial practice for the life insurance industry in Canada.

Process

A preliminary version of this educational note was shared with the following committees for their review and comments:

- Committee on Life Insurance Financial Reporting
- Appointed Valuation Actuary Practice Committee

This educational note was also presented to the Actuarial Guidance Council (AGC) in the month preceding its approval. Material comments received from the various committees and the AGC have been addressed in this final version.

The creation of this preamble and educational note has followed the AGC's protocol for the adoption of educational notes. In accordance with the Canadian Institute of Actuaries' (CIA's) *Policy on Due Process for the Approval of Guidance Material Other than Standards of Practice and Research Documents*, this educational note has been prepared in accordance with such protocol and received final approval for distribution by the AGC on May 14, 2024.

Your feedback

Questions or comments regarding this educational note may be directed to the chair of the AGC.

1. Introduction

An actuary may be engaged to value and to report on the valuation of gift annuities issued by Canadian charities. The purpose of this educational note is to maintain consistency in practice in the valuation of these gift annuities.

This educational note builds on the content of a research paper published by the CIA in 2007 and is intended to replace that paper. The research paper was entitled *Considerations in the Determination of the Actuarial Liabilities of Canadian Charitable Gift Annuities* (accession number 207012) and had the objective of establishing an appropriate range of practice for these valuations. While this objective was largely achieved, the advent of IFRS 17, the new international financial reporting standard, which came into effect for fiscal years after January 1, 2023, meant that the life insurance valuation methodology being applied to these valuations in Canada would no longer be supported. As a result, this educational note is being published to provide an updated approach for the valuation of these gift annuities in Canada. This is desirable to avoid inadequate valuations and to avoid large variations in scope and results of liability determinations undertaken by different members of the actuarial profession in Canada.

This educational note provides a description of the gift annuity product, the pertinent differences between the charities that issue this product and life insurers who issue conventional annuities, and how the CIA *Standards of Practice* (SOP) would apply to an actuary engaged in determining the actuarial liabilities of this product.

This educational note also sets out considerations for the actuary when performing valuations of these gift annuities using actuarial methodology which is consistent with that used under IFRS 17. These considerations do not mirror IFRS 17 requirements in their entirety, since the accounting standards applicable to the charities issuing gift annuities differ from those of regulated life insurance companies

(i.e., the charities themselves are not subject to IFRS 17 financial reporting). The charities issuing gift annuities operate in an unregulated environment in this regard, with oversight provided by the Canadian Charitable Annuity Association (CCAA) for organizations that are members of the CCAA, as described below in the subsection 2.6 Regulation.

Finally, this educational note indirectly provides information that an actuary may use in advising on a charity's financial reporting and structuring of its gift annuity program.

2. Charitable gift annuities

2.1 Overview

A charitable gift annuity (CGA) is a gift annuity issued by a Canadian charity. In return for a single premium (the donation), a CGA provides both a prescribed level life annuity payable to the donor and a benefit to the charity on the annuitant's death equal to the residual account balance. The account balance constitutes the "gift" portion of a gift annuity and is made available only on the death of the annuitant to support the work of the charity. No part of a CGA has any cash value. On death, the account balance is paid out of the assets supporting the CGA held by the charity. A CGA is usually available on a single life basis as well as a joint and survivorship basis. For the latter, the account balance is paid on the death of the survivor.

CGAs come in two forms – "self-insured" and "reinsured."

A "self-insured" (sometimes referred to as a "self-issue") CGA is one in which the charity receives the donation, carries the assets and liabilities on its books, administers the annuity payments, and determines and distributes the death benefit (or gift) on the death of the last surviving annuitant. There are some 25 to 30 charities who are members of the CCAA[1] with self-insured CGAs in force, although the CCAA membership has been in decline for some time. Some CCAA members have ceased issuing agreements to new annuitants and are running down their pool. Others are continuing to accept agreements only from those who already have an agreement. A few of these charities are still accepting new annuitants. Tier II members of the CCAA do not undertake triennial valuations but rely on their own financial credibility to convince annuitants that they can meet the contractual obligations.

A "reinsured" (sometimes referred to as a "Gift/Plus") CGA is one in which the charity takes a portion of the donation (typically in the range of 70% to 80%) and purchases an annuity from a licensed life insurer who administers the annuity payments in lieu of the charity. The charity retains the balance as the gift payable. The number of charities issuing reinsured CGAs is unknown but is likely far greater than the number issuing self-insured CGAs.

To the extent that the life insurer administers the annuity payments, the "reinsurance" is effectively assumption reinsurance as the charity sheds all actuarial risks, whereas self-insured CGAs carry mortality, investment return and expense risks. Hence, this paper deals only with "self-insured" CGAs. In what follows, a CGA will be interpreted to be a self-insured CGA.

The life annuity portion of a CGA is almost universally a level immediate annuity, guaranteed for life, with no minimum guaranteed period, and non-commutable. A joint and survivorship annuity is payable to the survivor with no reduction on the first death.

The account balance of a CGA is the donor's gift to the charity. At issue, the donor specifies the beneficiary, which may be the charity's general fund, a specific branch of the charity, or a specific aspect of the charity's work. On the death of the annuitant (or on the death of the survivor in the case of a joint and survivorship), there is a transfer of the remaining account balance from the CGA assets held in trust to

[1] Canadian Charitable Annuity Association (CCAA) is a voluntary association of charitable organizations and institutions interested in and/or involved in the issuing of charitable gift annuities.

the beneficiary. At issue, the amount of the account balance is equal to the donation. Thereafter, the account balance is the previous period's account balance accrued with earnings to the end of that period (or the date of death if earlier) and reduced by any allocated expenses and the sum of the annuity payments due in that period.

The earnings that are accrued (or credited) on the account balance for any period are typically the net average earnings on the pool of assets backing the gift annuity program. In this context, "earnings" includes interest paid plus change in due and accrued, dividends, distributions from income trusts, and either actual or amortized gains and losses. To be consistent with the expectations of IFRS 17, it is preferable that assets supporting gift annuity programs be valued at fair market value. In calculating the liabilities, some charities deduct a spread to allow for administration expenses and, in some cases, the longevity loss (described in this section below).

The account balance for each contract is calculated and tracked for each period. The total of all the charity's account balances may be referred to as the "Fund." A charity may or may not separate the assets that back the gift annuity program from other assets of the charity, either physically or notionally.

As the annuity payments in any year are usually (but not always) greater than the total investment income in that year, the Fund is expected to decrease each year. It is important to recognize that the account balance would become negative if an annuitant survives for a sufficiently lengthy period. A negative account balance represents a loss to the charity because assets are still required to provide for any further annuity payments for such annuitant at that time – a loss referred to herein as the longevity loss.

The assets supporting a closed block of conventional life annuities would be sufficient to support the liabilities when the gain from those who observe higher than expected mortality offsets the losses from those who observe lower than expected mortality. Conversely, a closed block of CGAs that is in runoff may require additional assets to support the liabilities if the account balances for annuitants with higher mortality have been paid out to the charity while the remaining annuitants have survived beyond their life expectancy, thus depleting their account balances and creating a longevity loss.

It follows, for a block of CGAs, that the assets backing the obligations must accumulate over time to be greater than the Fund in order to cover the longevity loss. If the gift annuity program is to be financially independent of the other operations of the charity, the excess of the assets over the Fund must also be sufficient to cover the future administration expenses of the gift annuity program. The excess of assets over the Fund is normally achieved by including a spread between the net asset rate of return and the rate being crediting to the account balances. (see Keeping the CGAs in actuarial balance).

2.2 Charitable Tax Receipt

At the time of issue, the charity provides a charitable tax receipt to the donor for that part of the donation that complies with the *Income Tax Act (Canada)* and *Income Tax Regulations* as enforced by Canada Revenue Agency. That amount is equal to D – MV where D = the donation, and MV = the market value of the annuity payout. To qualify for an initial receipt, D-MV must be at least 20% of the donation D. If this is not the case, the MV must be reduced by reducing the amount of the annuity payout in order to receive a charitable tax receipt. The charity determines and informs the donor of the taxable/non-taxable split of the annuity payout by following the same regulations as for life insurers using a consideration (or adjusted cost base) of MV.

MV had been defined by the *Income Tax Act (Canada)* and *Income Tax Regulations* as the "amount that would be paid at that time to an arm's length third party to acquire an annuity to fund the guaranteed payments." In practice that is the cost of an identical annuity available from any life insurer in Canada. MV is, therefore, any of a range of values.

2.3 Pricing/Marketing/Selling

The pricing basis is promulgated by the charities' associations in both the US (the American Council of Gift Annuities or ACGA) and Canada (the Canadian Charitable Annuity Association or CCAA). While the assumptions differ between countries, they both use a simplified basis by equating the donation to the present value of the annual payments plus an assumed level death benefit, with no provision for administration expenses.

The pricing basis produces an annuity payout that is somewhat lower than the level for comparable annuities sold by life companies due to the provision for an assumed death benefit within the CGA. The lower the annuity payout, the higher the expected future account balance. And the higher the account balance, the lower the longevity loss – a desirable result. An uncompetitive annuity payout is not a serious problem for the charities because the primary motivation for the purchaser/donor is to provide a charitable gift.

Gift annuities are offered to males and females with a lower age bound of 55 or 60 and usually no upper age bound. Individuals wishing to donate to a charity have various options. For example, a donor can provide:

- an outright gift immediately of $X;
- a gift on death arising from one's will or a bequest of $X; or
- a CGA with donation of $X and expected ultimate gift of < $X.

Of these three options, the CGA is expected to provide the lowest gift to the charity because the actual gift on death is expected to be less than $X. It is reasonable to think that individuals in poor health are more likely to opt for the first two options and have no interest in the annuity feature. Individuals in good health may be more concerned about their own long-term needs and favour a CGA (in lieu of an outright gift) to provide a hedge against a long lifespan.

2.4 Application and contract

The application form and contract provisions of a CGA vary among charities, as they do among life insurers, but the following provisions are believed to be typical:

- The contract becomes irrevocable after a grace period.
- The donation becomes the absolute property of the charity.
- The donation will be used to benefit the [donor-named beneficiary], (usually the charity or some aspect of its work).
- In consideration of the donation, the charity will pay the donor an annuity of $… [frequency] on [dates] until the regular payment date preceding the date of death of the donor.

The charity is contractually obligated to make the annuity payments, and to pay (or use) the account balance on death as specified by the donor. On request by the donor at any time, the charity will provide the amount of the current account balance.

2.5 Taxation

As charities are not taxed, income tax does not affect the valuation of the liabilities.

2.6 Regulation

Most, if not all, Canadian charities that issue CGAs on a self-insured basis have the right to do so written into their charters. The various provincial insurance acts require any enterprise issuing insurance or annuity contracts to be licensed, but the provincial regulators have not pursued that requirement with the

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self-issuing charities. As a result, gift annuities issued by charities continue to be unregulated. One exception is British Columbia, which has deemed CGAs to be securities and hence overseen by the Securities Commission. Charities in B.C. are to deem themselves "exempt dealers" and provide a prospectus to prospective annuitants which declares that an "investor can lose all of their funds."

The charities that are members of the CCAA take the position that they are "self-regulated" by following the CCAA's "Standards for Member Organizations". One of the standards for a self-issuing charity to maintain membership in the CCAA is a triennial report on "the size of the actuarial liabilities signed by a qualified actuary (FCIA)." The CCAA has not specified what they mean by a "qualified actuary." However, under CIA *Rules of Professional Conduct* (Rule 2) – "A member shall perform professional services only when the member is qualified to do so and meets applicable professional continuing qualification standards."

2.7 Accounting for CGAs and CCAA financial management requirements

Since CGAs are typically on the books of charitable organizations but are incidental to their main work, they are not expected to follow generally accepted accounting principles (GAAP) for life insurance enterprises but are more typically using the accounting standard for not-for-profit organizations. Further, since they are unregulated, they are not subject to the provincial or federal reporting required of life insurers.

Nevertheless, the CCAA, through its Standards for Member Organizations, has established the following three expectations in regards to the accounting and financial management of CGAs:

> A report on the size of the actuarial liabilities signed by a qualified Actuary (FCIA) should be required of each issuing organization at least every three years. The issuing organization's assets held in trust must be sufficient to meet all future contractual payments as determined by these periodic assessments of the present value of future benefits payable under the gift annuity agreements,
>
> and
>
> Assets being held in trust to meet future obligations under gift annuity agreements shall be segregated from both the assets of the charity itself and the organization's operating income. This shall be done in the best possible manner as to protect them from other creditors of the issuing organization.
>
> and
>
> The trustees of the assets being held to meet future obligations under gift annuity agreements shall make appropriateness and prudence of the investment their major concern both as to principal and interest. In no manner shall investments be made other than those permitted in accordance with the "prudent person rule."

The actuary providing services to value CGA would normally expect to exchange correspondence with the auditor of the charity in accordance with the requirements of the Joint Policy Statement, as set out in Section 1500 of the CIA SOP. The wording of this correspondence would be revised to reflect the circumstances of the valuation of CGAs.

3. Relevant differences between charities and life insurers

The CGAs are unregulated, so there are no requirements for minimum capital along the lines of the Life Insurance Capital Adequacy Test (LICAT) for Canadian life insurers. Nor are charities required to provide for any balance sheet projections of their CGAs such as the financial condition testing (FCT) required of Canadian life insurers.

The requirement that the charities continue annuity payments regardless of longevity is a contractual obligation and, in this regard, does not differ from that of life insurers. However, for some charities, the contractual obligation to forward the account balance on death to the named beneficiary may not be as firm as that for a death benefit under a life insurance contract.

Unlike a life insurer's segregated funds, a charity's assets supporting the gift annuity obligations may not be protected in the event of the charity's bankruptcy. Further, unlike policyholders of insurance companies, gift annuitants may not have a priority claim to those assets over the charity's other creditors. Even if those assets are held in trust, there is doubt as to whether the CGA liabilities have first claim on them.

Charities are not members of Assuris.

It is unclear whether there is anything that prevents a charity's assets, other than the assets supporting the gift annuity obligations, from being accessed to meet the gift annuity obligation. Some charities advertise that all of their assets are so available.

Canada's *Winding-up and Restructuring Act* has a separate Part III that deals with insurance companies. That part gives policyholders of those companies priority over most other creditors. It is unlikely that this section would apply to charities. A historical note is that in the wind-up of the Christian Brothers, in which the charity had had assets set aside for a specific purpose, the court held that the specific purpose had no preference against the other creditors in the winding-up. Subsequently, the *Charitable Purposes Preservation Act*, SBC 2004 C-59, would appear to give some protection to the annuity stream though that has not been tested in court. An annuity that would simply benefit the charity would not receive protection under that Act. Therefore, a charity's CGA annuitants may not have a priority claim over any of the charity's other creditors on the assets backing the CGA liabilities, even if those assets are held in trust.

As noted above, charities follow Not-For-Profit GAAP, which does not include the section on GAAP for life insurance enterprises. As a result, their balance sheets and income statements will differ substantially from those of life insurers.

To maintain their membership in the CCAA, charities require the valuation of gift annuity obligations, but only triennially. There may also be some charities issuing gift annuities who are not members of the CCAA.

Terminology Equivalents

Life insurers	**Charities issuing CGAs**
policy or contract	gift annuity agreement
policyholder	donor
annuitant	donor, annuitant
contingent annuitant	joint annuitant (usually a spouse)
insurer	name of charity
single premium	donation
death benefit	gift, ultimate gift, residue, account balance, individual fund amount

capital or surplus	reserve
annuity rate (MI/1000)	annuity rate (annual income per 100 donation, as a %)
beneficiary	beneficiary (the charity or some aspect of its work)

4. Application of the CIA *Standards of Practice*

The General Standards of the CIA SOP (Part 1000) apply to an engagement to report on a valuation of liabilities of a charity's gift annuities, as they do to any actuarial engagement in Canada.

There are no practice-specific standards specifically dedicated to actuarial work pertaining to a charity or to charitable gift annuities. However, Sections 2200 and 2300 apply to the valuation of insurance contracts and other obligations in accordance with IFRS 17, even where the reporting entity is not an insurer. An argument may be made that the actuarial valuation methodology used for IFRS 17 is an appropriate approach to use for CGAs because it deals with similar and related issues arising from insurance contracts.

Applying Part 3000 of the SOP to CGAs would not be appropriate. Paragraph 3100.03 states that the Practice-Specific Standards for Pension Plans apply to

> advice with respect to a pension plan, including any arrangement that provides retirement income to its members, whether funded or not, whether registered or not, and whether in the private or public sector.

CGAs are not pension plans and they are not arrangements that provide retirement income to members. They are sold individually to the Canadian public similar to the sale of immediate annuities sold by insurers to the general public. As such, they are individual contracts between the charity and the gift annuitant.

Part 2000 "Insurance Contract Valuations" has, therefore, been selected as the starting point for specific guidance to the actuary in reporting on the valuation of a charity's gift annuities. As noted in the next section of this document, the actuary would modify the expectations of IFRS 17 vis-à-vis actuarial valuation to take account of differences between a conventional annuity and a CGA on the one hand, and between an insurer and a charity on the other hand.

Regardless of the valuation method being followed, the actuary would apply relevant sections of Part 1000 to the valuations of charitable gift annuities. The following paragraphs provide a summary of some of the sections of Part 1000 and Part 2000 which may have particular relevance to such valuations. The objective would be to produce a reliable measure of the liability in accordance with actuarial standards and practice.

4.1 Terms of engagement (Subsection 1330)

If an actuary is asked to value only the annuity payout, before accepting the engagement, the actuary would make the client aware that his or her report would not constitute a "report on the size of the actuarial liabilities" as required by the CCAA Standards for Member Organizations. Further, to value only the obligations of the gift annuity contract and omit the obligation for the account balance on death, would be inconsistent with accepted actuarial practice. See below under "Opinion statement with reservation."

4.2 External user report (Subsection 1710)

Although there is no regulatory prescribed report wording to follow, this section of Part 1000 would apply. The actuary would be aware that the charity's financial statements may not show the results for the valuation of the CGAs separately from other assets or liabilities. As with any actuarial work, the actuary

would review subsection 1710 (or subsection 1720 for a report which qualifies as an internal user report) to ensure that appropriate information is included and that disclosures comply with Part 1000.

Specific items which may be relevant for the actuary to consider in the presentation of the report would include:

- the extent to which future death benefits have been employed as liability offsets;
- the spread between the net rate of return on the assets and the crediting rate;
- disclosures of margins;
- splits of the liability between the annuity value, the death benefit value and administration expenses; and
- comparisons between asset values and liability values to determine the level of surplus or deficit in the CGA fund.

4.3 Scope of Part 2000 (Subsection 2110)

Paragraph 2110.03 states that Sections 2200 and 2300 apply to the valuation of insurance contracts and other obligations in accordance with IFRS 17, even where the reporting entity is not an insurer.

Paragraph 2110.04 states that Sections 2200 and 2300 would not apply to the valuation where the valuation is not in accordance with IFRS 17 and the valuation would be in accordance with (other) applicable accounting standards if the valuation is to be used for financial reporting or in accordance with the terms of the actuary's engagement.

Given that the charities issuing CGAs are not themselves subject to IFRS 17, it is not practical to apply all aspects of IFRS 17 to the valuation of the CGAs. Therefore, it may be advisable for the actuary to suggest to the client that the terms of the engagement refer to this educational note as being an appropriate basis under which to perform the valuation.

4.4 Appointed Actuary (Section 2400)

This section is inapplicable since the actuary does not have the statutory recognition referred to in paragraph 2420.02, which sets out the scope of application of Section 2400.

4.5 Financial condition testing report (Section 2500)

The CIA SOP do not require an actuary engaged to value CGAs to complete a FCT report, and charities are not required to produce a FCT report. The actuary does not have the statutory recognition referred to in paragraph 2510.02, which sets out the scope of application of Section 2500.

5. Potential application of IFRS 17

IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of financial results for insurance contracts issued. It applies to life insurance contracts that are "life-contingent annuities or pensions" while specifically excluding liabilities that arise from employee benefit plans as reported by defined benefit plans (IFRS 17.B26). Since the charities which issue CGAs are not themselves subject to IFRS 17, this note suggests that the actuary, in consultation with the charity's management and auditor, would apply a simplified form of IFRS 17 to the valuation of CGAs as proposed below.

5.1 Simplifications to IFRS 17

The underlying valuation approach being proposed for the valuation of CGAs is the actuarial present value method. This aligns with the General Measurement Model of IFRS 17, which uses the policy premium method (PPM) as its underlying valuation approach. The PPM approach projects future cash

flows and discounts them at appropriate rates to determine a present value. Alignment with IFRS 17 has the advantage of applying a valuation method that is actively supported in Canadian actuarial practice.

Beyond the selection of the valuation methodology, IFRS 17 also stipulates a number of additional requirements that impact the granularity of measurement and financial disclosures, such as separating contracts into cohorts, identifying onerous contracts, providing liability roll forward disclosures and providing a statement of financial performance.

It is proposed that the valuation of CGAs be simplified by excluding these elements of the IFRS 17 standard. The focus is on estimating the IFRS 17 compliant fulfilment cash flows as opposed to determining revenue recognition for the income statement.

Other aspects of the valuation of CGAs would follow the precepts of IFRS 17 – the selection of appropriate demographic assumptions (e.g., mortality), inclusion of future administrative expenses in the valuation, establishment of appropriate margins for the valuation and discounting of future cash flow streams. Under IFRS 17:

- expenses are defined as being those which are “directly attributable” to the contracts;
- margins are referred to as being a “risk adjustment” and are intended to reflect the compensation that the entity wishes to receive for bearing certain non-financial risks;
- margins are not included for economic risks; and
- discount rates are determined based on current market conditions.

These relevant aspects of IFRS 17, as they may be considered by the actuary performing a valuation of CGAs, are discussed in the following subsections.

5.2 Estimates of future cashflows

IFRS 17. 33 specifies that the measurement of insurance contracts would include all the future cash flows within the boundary of each contract. These are expected to incorporate all reasonable information about those future cash flows in an unbiased way, albeit without undue cost or effort. There is guidance from the CIA educational note, *IFRS 17 Estimates of Future Cash Flows for Life and Health Insurance Contracts* published in June 2022 (accession number 222085) which may assist in determining estimates of future cashflows.

For CGAs, the future cash flows would include annuity payments, death benefits and administrative expenses.

The first two of these depend primarily on the mortality and mortality improvement assumptions selected by the actuary. As with all demographic assumptions used for life insurance valuations, it is appropriate to update these periodically based on current experience and/or to validate assumptions compared to recent demographic results.

Under IFRS 17, future administrative expenses are expected to include expenses which are directly attributable to the insurance contracts. For charities offering CGAs, it would be important to ensure that all relevant expenses associated with the administration of the gift annuity programs are included in the valuation process and that these are updated periodically.

Finally, the CGA death benefits have cashflows that vary based on the underlying fund returns. The actuary would take this into account when determining the value of the death benefits.

5.3 Discount rates

IFRS 17. 36 specifies that an entity would adjust the estimates of future cash flows to reflect the time value of money and the financial risks related to those cash flows. The discount rates would reflect the

characteristics of the cash flows and the liquidity characteristics of the insurance contracts, and they would be consistent with observable current market prices. There is guidance from the CIA educational note, *IFRS 17 Discount rates for Life and Health Insurance Contracts* published in December 2023 (accession number 223185) which may assist the actuary in performing this aspect of the valuation.

In association with Fiera Capital, the CIA is publishing IFRS 17 reference curves which are consistent with the IFRS 17 requirements. These reference curves are generally considered to constitute acceptable actuarial practice for the Canadian life insurance industry as the discounting basis for insurance liabilities. For CGAs, the actuary would consider the liquidity of the contracts in deciding which discount rate curves to apply. It may be noted that most CGA cashflows are relatively illiquid as the annuity payments and death benefits may not be monetized other than when the demographic event (survivorship or death) occurs.

The actuary would consider whether a top-down or bottom-up approach would be appropriate to develop the discount rates. Given the likelihood that the bottom-up approach would be simpler to derive and result in greater consistency across this sector, the author suggests that this would normally be the preferred approach. A top-down approach may be appropriate if the charity has developed an investment strategy where the liability characteristics would be well replicated by the investment portfolio structure.

5.4 Risk adjustment

IFRS 17.37 specifies that an entity would adjust the estimate of the present value of future cashflows to reflect the compensation that the entity requires for bearing the uncertainty associated with non-financial risk. There is guidance from the CIA educational note, *IFRS 17 Risk Adjustment for Non-Financial Risk for Life and Health Insurance Contracts* published in June 2022 (accession number 222090) which may assist the actuary in performing this aspect of the valuation.

Derivation of an appropriate risk adjustment may be more nuanced for charities issuing CGAs than for financial institutions issuing market annuities. Since the charities are themselves not-for-profit entities, it might even be argued that they do not require any compensation for bearing the risk.

However, a more compelling view is that the not-for-profit entities may have more conservative risk appetites, in that they would have a very low tolerance for failure to make annuity payments due to insufficient funds. These entities do not have the ability to raise capital in support of the business operations. The risk adjustment thereby compensates for the risk brought about by the CGA contracts.

It would therefore be appropriate for the actuary to include a substantial risk adjustment in the valuation of these annuities. Rationale for this includes:

- the lack of capital supporting these obligations such that there is no margin associated with these contracts other than those included in the valuation itself;
- relatively low average size for the charitable gift annuity programs so that they do not benefit very much from diversification of mortality and other risks;
- the longevity risk associated with these contracts, whereby death benefits for annuitants who pass away earlier than expected are withdrawn from the fund, whereas those annuitants who live beyond their life expectancy would have exhausted their account balances;
- uncertainty regarding whether the annuities would have recourse to other funds held by the charity in the event of a shortfall; and
- legal precedents that suggest that the charitable annuities would not have precedence over any other obligations of the charity were the charity to discontinue operations.

For these reasons, the actuary would be encouraged to include significant margins for mortality, mortality improvement and expenses. It may be useful to express the margin as a fixed percentage of the net present value of the annuities, and to monitor this percentage throughout the life of the contracts.

6. Provision for risk

The charities, being unregulated, are not required to determine any minimum risk-based capital such as LICAT to back their gift annuity program, and there is nothing in the CCAA Standards for Member Organizations that requires any risk-based capital to be set aside for these programs. While not part of its standards, the CCAA has nevertheless recommended to its members that a reserve of 5% of the total account balances be maintained to cover the potential for longevity loss. Such an unallocated reserve is desirable in the event of actual experience being worse than what the actuary assumed in calculating the liabilities.

Under IFRS 17, there is no expectation of a margin being held in the valuation for financial risks. Interest rate risk may not be a significant concern for CGAs, since there is a certain amount of offsetting that takes place between the values of the annuities (which increase in value with declining discount rates) and the values of the death benefits (which move in concert with fund returns and increase in value with increasing rates of return or rising rates). Nevertheless, the actuary would consider whether additional margins would be appropriate to compensate for the fact that charities issuing CGAs do not hold additional capital for market risk related to interest rate mismatching or equity risk. For example, it might be appropriate for the actuary to test the potential impact of a substantial decline in equity markets after the valuation date on the level of surplus or deficit in the CGA fund.

Increasing the spread between the earned rate on the fund and the crediting rate on the account balances would provide an additional margin for financial risk. If the charity's CGA contract allows for this flexibility, the actuary could recommend a spread policy which creates such a margin. Alternately, the actuary could recommend that an additional "reserve" of 5% of the total account balances (or some other reasonable level) be set aside to cover the potential for loss due to financial risks.

If charities are unaware of this possibility, it would be appropriate for the actuary to bring it to their attention. Such a request would be consistent with subsection 1220 of the SOP, whereby the actuary may accept the terms of an appropriate engagement which differs from typical actuarial practice, in this case by adding an additional margin for this financial uncertainty even though such margins are not prescribed under IFRS 17.

Otherwise, if the charity has a set basis for determining the spread, the actuary would use that basis and report the resulting liabilities. The charity, however, may agree to change the spread after each valuation so the resulting liabilities are less than the assets by some target amount.

The charity may wish the actuary's advice on the appropriate level of the target reserve. Because LICAT requirements are complicated to determine and not required for CGAs, the actuary might suggest a simpler basis such as a target capital of 10% of the assets backing the CGA (that percentage is arbitrary but not unreasonable considering the risks involved in this product). The demographics of the group and the level of investment risk inherent in the asset portfolio (relative to the liabilities) would be factors to consider in setting this percentage.

Assets backing the target capital would be retained in the funds backing the CGA liabilities, and not allocated to the charity's general funds.

7. Keeping CGAs in actuarial balance

As noted at the end of the Section 2.0, “Overview of charitable gift annuities”, if the charity’s practice is to provide a death benefit to the donor’s named beneficiary equal to the donation minus past annuity payments accumulated at the investment return rate on the supporting assets, then there may eventually be an asset shortfall that can be relieved only by some combination of the following:

To use any death benefits payable to the charity as “offsets” in the valuation. In the event of a mortality loss on some contracts, the charity would agree that any death benefit payable to the charity would first be used to offset the mortality loss and would be retained in the funds backing the CGA program until the shortfall was rectified. Shortfalls are relatively uncommon so the need for this recourse would be quite limited.

To transfer assets from the charity’s other operations to the gift annuity program. That defeats the purpose of the program, which is to create assets that become available for transfer to the charity’s other operations.

To calculate the account balance using a crediting rate that is less than the investment rate of return on the supporting assets. This is the best alternative, but it may not solve the total imbalance (see paragraph below) and is practical only if the rate reduction is determined rigorously and applied early. Undue delay in application will require a rate reduction that exceeds the investment rate of return. While this is possible, it is undesirable and impractical.

It is noteworthy that many charities have fewer than 1,000 contracts on their books, so the per contract administration expenses may be so large that the imbalance cannot be adequately handled by a crediting rate reduction. In this event, the charity will have to consider growing its block considerably or issuing reinsured gift annuities in lieu of self-insured gift annuities. It would also be important in this situation for the actuary to ensure that the valuation of the future administrative expenses contains sufficient margin for contingencies.

In particular, it would be appropriate for the actuary to monitor the development of any negative gift remainders in the charitable gift annuity program, and to take precautionary measures should there be any indication that negative gift remainders are growing. Such measures would include maintaining additional funds in the CGA program to ensure that all annuity payments would be satisfied.

8. Valuation frequency

The CCAA requires that its members obtain a valuation from a qualified actuary (Fellow of the CIA or “FCIA”) every three years. Some charities use common software provided by the CCAA that determines a rough liability for each accounting period. They are then able to take the ratio of the rough liability of the current period to the rough liability at the time of the previous triennial valuation and apply that ratio to the previous triennial liability to determine the liability for the current interim period. While a yearly valuation may be preferable, it comes with three times the expense which reduces the funds available to provide the annuity benefits.

For charities that perform triennial valuations, the following derivation may be helpful in determining the values of the parameters in yearly periods. AB stands for account balance and P stands for the annuity payment.

$$ {}_{t}AB = {}_{t-1}AB * (1+i) - P $$

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A more general formula is as follows

$$_{t+k/m}AB = {}_{t+(k-1)/m}AB * (1+i)^{(k/m)} – P_{t+k/m}$$

where

- t is in integral years,
- i is the interest rate applicable during the relevant time period,
- m is the frequency the AB is updated within each year, so m = 1, 4, 6, or 12,
- k (an integer except on death) is the period within the year, $1 \leqq k \leqq m$,
- $P_{t+k/m}$ are the sum of the annuity payments due in the period t+(k-1)/m to t+k/m.

Most charities update the AB monthly, so m=12, the period is monthly and the progression becomes

$$_{t+k/12}AB = {}_{t+(k-1)/12}AB * (1+i)^{(k/12)} – P_{t+k/12}$$

for month k in year t.

This derivation of the formula assumes that there is no interest accrual of the annuity payments made within the period to the end of that period. Note that a charity’s fiscal year may be other than the calendar year.

9. Opinion Statement

At a minimum, the actuary’s opinion would specify that the valuation was undertaken in accordance with CIA SOP. As discussed above, in the absence of practice-specific SOP for the valuation of CGAs, this would encompass Part 1000 of the SOP, as is the case for all actuarial work in Canada.

9.1 Standard opinion statement

The suggested standard opinion below would apply if the valuation of the actuarial liabilities has included margins, which in the opinion of the actuary, are appropriate for the circumstances, and the purpose of the work is to provide a valuation of the liabilities which includes margins for risks and contingencies:

> To the Board of Directors of “ABC Charity” and the trustees of the gift annuity assets;
>
> I have valued the actuarial liabilities arising from ABC’s gift annuity agreements for its balance sheet as at [date].
>
> My valuation has been done in accordance with accepted actuarial practice in Canada, including the selection of appropriate assumptions and methods.
>
> In my opinion the amount of the actuarial liabilities of $[…] makes appropriate provision for all obligations under the agreements.
>
> [Name, FCIA]
>
> [Place]
>
> [Date]

9.2 Alternative opinion statement

The alternative opinion statement below would apply if the actuary is providing the valuation of the actuarial liabilities solely for the purposes of financial statement reporting, and is relying on additional surplus amounts (in excess of the reserve amounts stated for financial reporting purposes) to provide for risks and contingencies of the charitable gift annuities.

To the Board of Directors of “ABC Charity” and the trustees of the gift annuity assets;

I have valued the actuarial liabilities arising from ABC’s gift annuity agreements for its balance sheet as at [date].

My valuation has been done in accordance with accepted actuarial practice in Canada, including the selection of appropriate assumptions and methods.

In my opinion the amount of the actuarial liabilities of $[…] is appropriate for the purpose of financial reporting.

[Name, FCIA]

[Place]

[Date]

9.3 Opinion statement with reservation

The two examples below are situations in which the engagement may call for work that does not follow accepted actuarial practice.

A. In the event that the engagement required a valuation of only the annuity payout including associated administration expenses, the statement would be modified as follows:

To the Board of Directors of “ABC Charity” and the trustees of the gift annuity assets;

I have valued the actuarial liabilities arising from ABC’s gift annuity agreements as at [date].

My valuation has been done in accordance with accepted actuarial practice in Canada, including the selection of appropriate assumptions and methods except as described in the following paragraph.

The charity has directed that the valuation exclude the obligations of the charity for benefits payable upon the death of the annuitant, so the actuarial liabilities are restricted to only the annuity payout obligations. In my opinion, this is not in accordance with actuarial practice. In my opinion, the excluded liability amounts to $[…].

In my opinion, except for the reservation in the previous paragraph the amount of the actuarial liabilities of $[…] makes appropriate provision for all obligations under the agreements.

[Name, FCIA]

[Place]

[Date]

B. In the event that the engagement required the actuary to exclude the future administration expenses of the CGA operation, the statement would be modified as follows:

> To the Board of Directors of "ABC Charity" and the trustees of the gift annuity assets;
>
> I have valued the actuarial liabilities arising from ABC's gift annuity agreements as at [date].
>
> My valuation has been done in accordance with accepted actuarial practice in Canada, including the selection of appropriate assumptions and methods except as described in the following paragraph.
>
> The charity has directed that the valuation exclude the future administration costs of servicing the obligations. In my opinion, this is not in accordance with accepted actuarial practice. In my opinion, application of accepted actuarial practice would result in an increase (decrease) in the liability amount of $[…].
>
> In my opinion, except for the reservation in the previous paragraph, the amount of the actuarial liabilities of $[…] makes appropriate provision for all obligations under the agreements.
>
> [Name, FCIA]
>
> [Place]
>
> [Date]

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