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Subject: Government of Canada real return bond consultations

The Canadian Institute of Actuaries is pleased to offer the attached comments in response to the consultations on real return bonds (RRBs). We have provided responses to the 12 questions posed in the consultation document and have also offered comments on the original objectives of the RRB program as outlined in the request for comments. Actuaries who work in the insurance and retirement practice areas may have opportunities to use real return bonds or consult to their clients on the use of real return bonds as part of their asset-liability management functions. Our responses are intended to reflect their perspectives.

We appreciate the extension provided by you to receive our comments, and we hope that they will be of use.

Responses to document questions

1. *What is your organization's primary reason for holding RRBs? Do you hold RRBs for the purpose of liability-matching requirements, improving your portfolio's risk/return profile, trading or other purposes? Please also specify your secondary reasons for using RRBs, if any.*

In general, RRBs are held as liability-matching assets to offset the risk associated with insurance and pension benefits that are indexed to inflation. RRBs may also be used if relative value opportunities arise, and they can also form part of the alpha component in a traditional fixed income portfolio.

2. *Do you hedge your RRB exposure and, if so, how?*

We have not observed this in practice. Note that insurers and pension funds typically use RRB exposure to hedge inflation risk inherent in their underlying liabilities. As such, hedging RRB exposure would be contrary to the reason why they are holding the asset.

3. *Are there other assets that you hold for similar purposes as RRBs? If yes, what are these assets and what is their relative importance in your portfolio versus that of RRBs?*

Assets such as infrastructure and real estate also have an inflation pass-through component and are sometimes used for a similar purpose as RRBs. The link between inflation and returns on these assets, however, is significantly more tenuous and hence these assets do not provide the same liability-matching characteristics as real return bonds.

4. *Do you consider RRBs as a separate asset class?*

In general, real and nominal bonds are considered as a distinct part of the fixed income portfolios.

5. *Is there sufficient GoC RRB issuance to meet your institution's needs?*

In general, there is insufficient RRB issuance to meet demand. Structural issues have emerged – such as high trading costs, liquidity issues, and the absence of a secondary market – which could be addressed by an additional supply of RRBs. The absence of RRBs has also led to instances where pension plans sought inflation protection from other sources, such as US treasury-protected inflation securities. In cases where the supply of RRBs is sufficient to meet an entity's needs, there is still a need to align investment schedules with bond auctions, so as to avoid unreasonable trading costs. A greater availability of RRBs may also make it easier for insurance companies to issue inflation-indexed annuity products.

6. *What are your anticipated future portfolio needs for inflation-indexed securities in comparison to the past ten years?*

There are differing views on this point. From one perspective, the need for inflation-indexed securities could increase due to the following factors:

- increased pension plan de-risking
- overall growth in the asset base of the existing defined benefit (DB) pension plan market

However, the following factors could lead to a decrease:

- The closing of private sector DB plans to new members, which will, over mid- to long-term horizons, reduce the size of these plans and hence demand for fixed income assets in general. In the shorter run, if a disproportionate number of indexed plans are closed, there may be an increase in the demand for RRBs to secure indexed benefits.
- Changes in funding rules across Canada shifting to a long-term view instead of solvency funding. Most public sector plans are moving to this view.
- Stability and confidence in the monetary policy/inflation control target providing less perceived need for inflation “insurance” protection.
- Investors hedging inflation by using other asset classes with more yield.
- Pension plans moving towards cost-sharing arrangements and conditional indexing.

Overall, our view is that we do not expect a major increase in the demand for RRBs.

7. *Would you prefer other tenors of RRBs (5y, 10y, 20y) to 30-year RRBs? If so, would you prefer them to nominal issuance in the same sector?*

Having similar nominal and RRB tenor structures would help investors to invest in federal bonds based on their liability profile and would reduce the opportunity cost of holding RRBs. This would also help improve the liquidity of RRBs. Adding 10-year RRBs would provide a truer picture of the dynamics of RRBs in Canada. However, we would not advise replacing nominal bonds with RRBs. There is a place for both. There may also be an interest in RRBs with longer durations, especially in life insurance applications, where the term of the liabilities can be quite long (in excess of 40 or 50 years).

8. *How would you characterize current overall demand for Real Return Bonds?*

- a. *What trends have you noticed over the past few years?*

Many investors are looking for alternate sources to hedge inflation. As well, pension plan de-risking has accelerated, especially in the private sector. This has contributed to a demand for assets to match cost-of-living benefit adjustments.

- b. *How do you expect demand to evolve in the future?*

Please see our response to Question 6.

9. *How would you compare the pricing of RRBs to that of 30-year nominal bonds? Do you feel that the difference in nominal and RRB yields accurately reflects market inflation expectations?*

RRBs are not as liquid as nominal bonds. As a result, the market demands an illiquidity premium. This distorts the calculation of the break-even inflation rate (BEIR), and as a result, market inflation expectations are not accurately reflected. Other factors can also affect this relationship, such as market segmentation (where investors with higher inflation expectations are more likely to purchase RRBs), and the inflation risk premium that investors would be willing to pay.

10. *Are breakeven inflation rates an accurate signal of market inflation expectations?*

For the reasons outlined in our response to Question 9, we question the accuracy of BEIRs as forecasts of market inflation expectations. The BEIR does provide insight into how the market's inflation expectations are changing over time. We also note that the market's expectations for short- and long-term inflation seem to be highly correlated.

What other factors are most important in driving recent RRB pricing (e.g. inflation expectations, inflation risk, liquidity premium)?

In our view, the main factors are liquidity premiums, and the mismatch of supply and demand for RRBs.

11. *How would you characterize secondary market conditions for RRBs and how has market liquidity evolved over time?*

The secondary market remains very illiquid, and most investors are following buy-and-hold strategies. This situation has remained stable in the last few years.

12. *Do you have any views on why a derivative market for RRBs has not developed in Canada?*

There are a number of possible reasons:

- a. limited liquidity
- b. the bond market in Canada is small, for nominal bonds as well
- c. limited counterparties that are willing to be long inflation
- d. smaller appetite for derivative products in Canada

We have seen significant growth in “synthetic” fixed income products in recent years.

Comments on RRB program objectives

1. *Cost-effectiveness compared with other sources of funds*

By issuing RRBs, the government is effectively taking on inflation risk and, through this, providing “insurance” to the marketplace. This would suggest that the BEIR, which in effect is a premium that the government receives from the market for providing inflation protection, would be higher than the market’s expectation of inflation going forward. There are indications that historical BEIRs have exceeded actual inflation rates.

2. *Diversification of the marketable bond program for the Government*

Because real return bonds have a different return profile from nominal bonds (e.g., by allowing pension plans to hedge inflation risk associated with certain types of liabilities), they provide a different opportunity set and, all other things being equal, should reduce the borrowing costs for the government. In addition, they should provide a natural hedge between government revenues (which are tied to inflation) and interest expenditures.

3. *Broader selection of instruments provided to investors and diversification of the investor base*

Many pension plans in Canada are exposed to inflation risk, either indirectly through salary growth of active members or directly through cost-of-living adjustments tied to inflation. Real return bonds are the only asset class that provides a direct exposure to Canadian inflation and that allows these risks to be hedged. Although some other asset classes do have an inflation component to their returns (e.g., real estate, infrastructure), this link is much less direct and hence the hedge less “perfect”.

4. *Secondary market development*

The secondary market liquidity of RRBs is significantly lower than that for nominal bonds, so this objective has yet to be met. The supply of RRBs has been limited, so

investors are reticent to trade them after purchase. Increasing the supply may help address this.

5. *Anti-inflationary stance signal to the market*

Inflation is one of the significant risks faced by anyone saving for retirement, so anything that can be done to manage or mitigate this risk is a positive.

6. *Indicator of real return and long-term inflation expectations*

Actuarial standards of practice currently rely on the difference between real and nominal government bond yields as an indication of the expected future inflation. In addition, the yields on RRBs are used to set the discount rate when determining the present value of future losses in personal injury cases, which affects actuaries practicing in the actuarial evidence area. In the absence of a functioning RRB market, the profession would need a different way of coming up with an assumption.

The CIA appreciates the opportunity to provide feedback on this topic, and we would welcome further discussion with you.

If you have any questions, please contact [Chris Fievoli](#), CIA Staff Actuary, Communications and Public Affairs, at 613-656-1927.

Sincerely,

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