Municipal Finance
Authority of BC

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Sticking to your investment plan in a rising interest rate environment

To Our Valued Clients,

There is no doubt a rising interest rate environment can feel particularly challenging for fixed income investors; however, it does not need to be. In fact, while investing in a rising rate environment may impact some tactical choices in the short term, changes to the interest rate outlook should never impact a local government's long-term approach to investing. A well thought out investment framework, backed by a solid investment policy, cash flow forecast and overall plan can not only mitigate any pressures you might be feeling, but leads to consistency, less work and stress, and ultimately better long-term investment outcomes. With all those elements in place, the last critical step in what we call an "investment cycle" is to develop a clear communication plan about your approach for stakeholders.

What can a local government (LG) investment framework look like?

There are many defensible approaches to managing a LG portfolio. Here is one we like at MFA.

1. Ensure you have completed and are comfortable with your cash flow forecasts
2. View your total portfolio in parts:
   - Short-term portfolio + buffer (for money that may be needed within the next 12 months)
   - Medium-term portfolio (money not needed for more than 1-year, but less than 5)
   - Long-term portfolio (money not needed for 5 to 10-years or longer)
3. Assess investments that align with the objectives of each portfolio
   - For example, shorter-term portfolios should hold assets that are less risky (shorter-dated and of the highest credit quality)
   - Manage credit exposures with clear investment limits (by issuer, sector, and credit rating)
4. Follow an investment plan
   - For example, consider which investments are maturing, and your cash flows – determine when new investments will be needed, and invest accordingly – within the risk limits you've set, selecting investments which mature prior to the money being needed
5. Do not be persuaded to abandon your investment plan mid-stream. You made logical and well-considered decisions while developing your plan, do not change those decisions under duress.
6. Re-assess your investment plan and cash flows regularly
   - Could be more than once a year, but do at least once per year
   - Sometimes this is well-suited after tax-collection season (high cash holdings)
7. Do not compare your results with others - use appropriate benchmarks relevant to your situation
   - Other LGs have different cash flow needs which may require them to hold shorter-dated assets – or conversely may be able to hold longer-dated investments which typically coincide with a higher yield
   - Some may be taking on greater or less credit risk

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A challenging investment environment

Today's environment is among the most challenging we have observed from a local government's perspective. Not only have interest rates hit historic lows in mid-2020, but they have been steadily rising ever since. As a result, bond investors have experienced a loss in the value of their holdings. Stakeholders and/or critics, especially those who do not understand the components of a given LG's investment strategy, can cherry-pick data and information which leads to wrong conclusions or, worse yet, torpedoes a well-thought-out long-term plan. Investors who are contemplating their investment choices are faced with issues of timing and length of investment. It is common for investors who do not have a clear plan to feel pressure to act. We would like to take this opportunity to dissect some misconceptions you may hear as this rate-rising cycle picks up pace, as well as provide some tips and approaches on how to proceed with your investment plan.

Executive Summary: timing the markets is for speculators, the best investment outcomes are usually achieved with a solid investment plan and a "buy-and-hold" approach. MFA pooled funds offer opportunities that cannot be replicated by LG investors on their own.

LG investors are not paid to time the markets. They are paid to make good credit decisions, maintain diversified and balanced portfolios, get a handle on their cash flows, match their investments to those cash flows in a systematic fashion, and buy assets in the most efficient fashion.

- MFA's Money Market fund, HISAs or financial institution deposits are the best places to park money that may be needed at a moments notice
- MFA Bond/Mortgage Funds, or individual bond holdings or GICs, should not be used as active trading vehicles by LGs. They are mid to longer term investment vehicles.
- Interest rates have risen over the last year or so, and the bond market has already priced in many central bank rate hikes over the next year. Rates may rise more than the market anticipates, or not – nobody can reliably predict the future of interest rates:
    - Cashing out of an MFA bond fund or fixed rate bond today will lock-in paper losses
    - If sold, a LG may miss the rebound as the market sentiment stabilizes and rates decrease, or don't increase as many times as the market has priced-in
    - Conversely, if rates keep rising, an MFA Bond Fund, or a laddered bond strategy, takes advantage of buying new fixed income instruments at higher rates in the future. In other words, current "paper" losses in the portfolio can eventually be offset by rising yields
- MFA's fund managers are managing the pooled funds to take advantage of both credit considerations and opportunities along the yield curve that a LG simply cannot duplicate
- MFA pooled funds significantly increase LG diversification and liquidity
- Accounting standards and the true financial/economic impacts of investing do not always align. Accounting issues should never be the driving force of an investment/financial decision. Make sure that if different accounting standards are used for different classes of investments that things are compared on an "apples-to-apples" basis and stakeholders understand the differences.

__Misconception #1: "…unlike a pooled fund holding many fixed income securities, a single bond will not experience any loss in value…"__

This is a common fallacy we hear, and of course it is completely wrong.

Accounting - cost method vs fair value method

Public Sector Accounting Board standards allow for the use of either the cost or fair value methods to record bond or pooled bond fund investments. We most often observe cost accounting used by LGs for individual bond holdings, however some LGs choose to also use the fair market value method for their pooled bond fund investments. The fair market method can result in recording unrealized gains or losses on investment holdings at year-end, whereas the cost method will not. Gains or losses on disposal of bonds or units using the cost method are recorded upon divestment – which may be years into the future. These are accounting measures and should never be confused with the true financial impacts of a given investment versus another, nor ever a reason in-and-of-itself to purchase one investment over another.

Cost accounting is easier to understand, but may not reflect the true economic value of an asset

While the cost method is simpler and may provide for easier communication, it may not reflect the true economic value of an investment at a given point in time. The biggest area of confusion we often see is some investments such as individual bonds or GIC holdings are accounted for at historical cost while others (pooled bond funds) may be accounted for at fair value. Worse yet, because of the transparent nature of pooled funds which have daily valuations, some unscrupulous brokers will point to those pooled investment returns when they are negative and conclude that pools are inferior to individual bond holdings. The key to keep in mind is using both methods can lead to confusion and unwise decision making. We encourage you to discuss issues related to accounting for investments and challenges you may be experiencing if you are using the fair market value method in this rate environment with your auditor.

Comparing apples to apples: the true financial impacts of rate movements on individual bonds holdings versus pooled funds are the same

While owning individual bonds or GICs may "shield" you from marking-to-market, the value of those fixed income securities fluctuate with daily changes in interest rates and credit market conditions. MFA's pooled funds are liquid, transparent and have a daily value. The pooled funds are effectively marked-to-market every day, in a similar way that fair value accounting may be applied at year-end to your financial statements. But when owning a pooled fund, the daily gains and losses are "paper losses" that have not been crystalized. Such losses would only occur if you sell the fund. Similarly, a pooled fund may present a negative total return in a given period, but you are still receiving distributions (and therefore income) throughout that period. A negative total return represents the combination of positive distributions with higher "paper" losses due to the mark-to-market of all the bond holdings within the pool. These are the same economic impacts you experience by holding an individual bond or a fixed-rate GIC. In other words, if you needed to sell a bond or a GIC position (which is far less liquid than most MFA pooled funds), you would only receive the true economic value at that point in time - and would experiencing a similar loss due to interest rate fluctuations as a pooled fund would experience. The distinction is pooled fund prices are transparent and updated daily, while an individual bond may be held on your balance sheet or reported at a technically incorrect and stale historical value.

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Managing interest rate risk– diversifying maturities by laddering or using pooled funds

Developing a firm grasp on your local government's cash flows can allow you to maximize returns by locking in higher interest rates for as long as possible while decreasing the likelihood of realizing losses in your bond portfolio, for example due to forced early selling. When one is comfortable with cash flow projections, utilizing an asset-liability matching strategy will limit the necessity of selling an individual bond holding or pooled fund units at inopportune times. An investor should select investments with a maturity (~duration) sooner than when money is needed - this is true for individual bond purchases or pooled funds. In pooled funds, total returns normalize when a holding period exceeds the duration of the pool after interest rates increase. Selling your pooled fund units when they are in a capital loss position not only realizes those losses but also does not allow the ladder in the pool to do its magic - as bonds mature, higher coupon bonds are purchased which assists to bridge the short-term loss in value.

Of course, cash flow projections are never perfect, and one can always expect to have a portion of one's portfolio that is not earmarked for specific spending needs in the future. Furthermore, spending may need to be accelerated or pushed back. The best way to deal with these situations is to maintain a short-term "buffer" portfolio and diversify your maturities via a laddered portfolio strategy or by owning a pooled fund which by design emulates a laddered bond portfolio.

Misconception #2: "…smart people are taking money out of bonds right now…"

Recently a client forwarded a note to us from a broker claiming, "smart people are taking money out of bonds right now." The broker pointed to outflows from bond funds as 'evidence' of this. Brokers are masters at spinning facts. Never forget they only get paid if they sell you something. We see this type of communication recycled every time we enter a rising-rate environment. These sales pitches can be convincing, and unfortunately, we have observed some clients reacting and taking money out at the worst possible time, crystalizing losses.

So why then is money leaving fixed income?

It is true capital market data indicates increased outflows from bonds. However, those outflows reflect the *entire* market which includes many thousands of decisions made by a variety of institutional investors (insurance companies, banks, pension plans, central banks, real money managers, etc.), and to a smaller extent retail investors. Each investor manages their portfolio according to their own objectives and constraints – what may be best for one investor may not be the best for others. It is naïve and wrong to state that "bonds are bad investments," even in a rate-rising environment.

Investment managers with unconstrained or multi-asset-class mandates who invest in both stocks and bonds in a diversified portfolio may view bonds as relatively expensive – yields are low, and markets expect rates to rise. With a wider set of investment alternatives, managers may engage in valuation and correlation analyses and determine bonds are not the place for them to be *relatively speaking*. However, for investors like LGs who match their investment plan to meet cash flow needs, the question is not whether to be invested in bonds, the question is are you matching your investments to liabilities appropriately? Are you minimizing costs/maximizing value, and are you being compensated for the risks you are taking?

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Timing the market: Interest rate predictions are for the foolhardy
Rates reached all-time lows in 2020, having consistently fallen for over 30 years. Since mid-2020, rates started climbing again. They may well continue to climb, or not. Predicting future interest rates is a fool's errand, even the smartest economists and rate strategists get it wrong - all the time. Regardless, future interest rate movements should not matter if you have a plan. LG investors are not paid to time the markets. They are paid to make good credit decisions, maintain diversified and balanced portfolios, get a handle on their cash flows, match their investments to those cash flows in a systematic fashion and buy assets at the lowest possible price. Even the largest and most sophisticated asset managers with large credit and strategy teams struggle to make long or short fixed income adjustments when attempting to outperform the bond markets. In other words, if you have a sound investment plan (credit and cash flows) the current (or tomorrow's) interest rate environment should have little to no impact on your short-term portfolio decision-making. Sticking to your plan is the best long-term winning strategy.

Misconception #3: "…bonds are risky investments in a rising rate environment…"
We would generally agree with this, but only if one looks at bonds in isolation. They offer a low return and are subject to substantial interest rate risk in the current environment. But bonds (or fixed rate GICs) are an essential building block of any LG investment portfolio, allowing one to get access to higher returns relative to cash alternatives like money markets and deposits.

So, what should I invest in today?
If you have a well-thought-out plan, you should not be concerned on a daily basis about the interest rate environment and should be holding on to what you own. If you have new money to invest, you must determine whether it is best to buy a single bond, a fixed-rate GIC, or investing in a pooled fund. What you choose should always be done in relation to your existing portfolio and overall goals and strategy.

Do not forget to factor in fees in your analysis. Large institutional investors have the expertise and scale necessary to ensure best price execution. There are significant differences between the price of a bond purchased by our Fund Manager PH&N relative to the purchase prices achieved by BC's LGs. We have unfortunately observed that LG investors are offered fixed income products at prices that are clearly inferior due to hidden mark-ups - imbedded charges or spreads that do not need to be legally disclosed by your broker. MFA is transparent with its low-cost fund pricing – and the historical outperformance of our funds over their benchmarks consistently exceeds fees paid. MFA Clients can also be confident MFA funds are obtaining best execution price on the assets they purchase, and those assets are being managed by professionals.

There is much more to an investment product than the yield it offers. Any investment should always be contemplated through a long-term investment plan. With that approach, if someone questions your returns you will have the confidence to explain and defend your strategy.

As always, our Client Services Team – Shelley, Nicole, Kyle, Shannon, or Peter would be pleased to discuss this document or any other questions you may have about investing local government reserves.

Sincerely,

MFA Client Services Team

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Supplemental Information

The two main components of risk in fixed income: Credit risk and interest rate risk

Managing credit risk – diversification and credit ratings

Credit risk is the risk an entity borrowing money does not pay it back in full and on time. Credit ratings are a great proxy for credit risk. Ratings are the culmination of analyses completed by highly knowledgeable professional credit analysts independent from the borrower. In general, the lower the ratings, the higher the credit risk and the greater the spread of a given bond versus the underlying benchmark bond (such as Canada Government bonds) - which results in a higher yield. Professional investors manage credit risk by setting investment exposure limits to individual issuers, sectors, and/or by credit ratings. Setting appropriate limits forces you to diversify your portfolio. You should always first identify the credits you are comfortable with, then you try to buy those credits at the lowest possible price. If you are unable to devote the time and energy necessary to complete credit risk assessments and build a diversified portfolio, then pooled funds are an inexpensive and professional alternative. Even the largest of MFA'S clients use pooled funds as they are extremely efficient and offer great diversification options such as corporate bonds, mortgages, and money market instruments which are not otherwise available in the Section 183 prescribed list.

What if credit ratings are not available?

When a credit rating is unavailable for a given investment, investors must undertake an analysis of the creditworthiness of the issuer. Like an investment where the pay-off is not well understood, if you are unsure how to conduct a credit analysis of an unrated investment or issuer, you really should not be purchasing that investment. We often observe LGs misidentifying the credit risk of an issuer. This can happen when investors are "chasing yield" - instead of following an investment plan and appropriate credit risk management practices. We see this basic error most often when it comes to purchases of unrated credit unions. Creditworthiness is often conflated with that of the Province in which the entity operates – usually because there is a deposit insurance program associated with the entity. Large professional investors will tell you that deposit insurance should almost never be viewed as "credit enhancing" for large depositors. When ratings are unavailable, nothing should substitute doing your own credit work and understanding the underlying ability of an organization to make whole on its obligations. You must consider the operational and financial risks of the financial institution itself and always be aware of concentration issues and the size of an institution. Aim to never be a large depositor in a small entity. Deposit guarantee schemes are generally not designed to protect large professional depositors but rather are primarily in place to protect retail investors. The 'guarantee' may not be available for institutional investors in extreme downturn scenarios. Since the 2008 crisis, governments around the world have been harmonizing regulations and have vowed to never again save financial institutions from themselves.

A simplistic approach to identify a riskier investment is to consider the yield it is offering. Like the credit risk premium discussed earlier, if a bank consistently offers a higher deposit rate versus others, it may mean that entity is a higher risk issuer. While that view is not foolproof, it is often correct. There are instances where a bank with particular needs can "pay up" relative to other financial institutions to grow its deposit base; however, one should never assume a bank is simply attempting to deepen its deposit base without clear supporting data. As opposed to being attracted to a higher yielding GIC, a good credit analyst will always question why that higher yield is being offered.

Managing interest rate risk

Interest rate risk is the risk associated with a bond's price movement due to fluctuating interest rates. When locking in a yield on a fixed income instrument for a period, there is an opportunity cost associated with that decision. By purchasing a bond today, you may lock-in a higher interest rate than a deposit, but you give up the opportunity of purchasing a bond with more attractive coupon in the future if rates go up. Market timing by attempting to forecast future interest rates is not the way to manage interest rate risk. As mentioned before, a better option is to start with a cash flow forecast and then invest in a bond or portfolio or pool of bonds, with a duration shorter than the timing of your cashflow needs. Secondly, for uncertain cash flows, you should diversify your maturities with many bonds that continuously come due at various times in the future via a managed ladder or automatically as part of a pool.

Revisiting duration: quantifying interest rate risk

The magnitude of change in the price of a bond price will be larger the further into the future the maturity date of the bond. The duration of a bond can be defined as a measure of this price sensitivity to interest rate changes and the "modified" duration is a particular type of duration calculation that represents the change in price associated with a 1% increase or decrease in rates.

If we buy a 5-year Ontario bond and lock in a yield of 2.07% today and rates rise by 1% tomorrow, our bond will drop in value by about 4.7%. Compare that with the 30-year Ontario bond purchased today to yield 3%. If we held that bond and interest rates increase 1%, it will drop in value by about 18.7%. Think about that – we are only guaranteed (assuming Ontario does not default) to get 3% over 30 years, yet our investment can move around in value by 18% each time interest rates move up by 1%!

Now let us compare the MFA Short-term Bond Fund with the 5-year Ontario bond. As of February 28th, the ST Bond Fund had a running yield of about 2.03% (similar to the Ontario 5-year bond) but had a lower modified duration of about 2.5 – seen in isolation, to us, this looks "better" than a single Ontario 5-year bond (not considering credit risk). Not only does the MFA Bond Fund present less price risk, but it invests in a broad and diversified portfolio of corporate and government bonds. Furthermore, as it holds numerous securities, the portfolio's holdings are consistently maturing over time and reinvested at varying interest rate environments. In that way the Bond Fund acts like a laddered portfolio.