Preferred Shares and GICs

When constructing a fixed income portfolio many Canadians will not invest in anything with a term greater than five years, usually with the rationale that inflation risk is paramount; a maximum term of five years will mitigate the damage from a long, sustained spike in the inflation rate. Further, many will restrict their fixed income investments to bank-issued Guaranteed Investment Certificates (GICs), sometimes in the form of a ‘GIC Ladder’: usually holding five GICs with maturities at one year intervals.

While superficially attractive, this approach exposes investors to hidden risks while denying them suitable rewards for their fixed income investment. Most notably, the elements of the GIC Ladder that can be improved through the use of preferred shares – and other longer term investment vehicles – are:

- Reinvestment Risk may be reduced
- Inflation risk is best addressed through other asset classes
- Preferred shares are exchange-traded
- Almost all Canadian preferred shared dividends are fully eligible for the Dividend Tax Credit
- After-tax yields of Canadian preferred shares are generally higher than bonds with similar credit risk

Defenders of a fixed income portfolio consisting exclusively of a GIC Ladder will often rationalize their approach with the arguments:

- Principal protection – ‘the price doesn’t change’
- Having a variety of maturities reduces the impact of interest rate changes
- It allows investors to invest for longer terms at higher yields
- A portion of the investment will become due every year, providing liquidity
- It reduces the number of decisions to be made
- Clients prefer to take their risks with equities

An interesting thesis, but how well do these points stand up to scrutiny? As it turns out … not too well. Investors following this policy are generally accepting very low returns on their investment, and are taking quite a few risks that are not discussed by advocates of the strategy. While Hymas Investment Management does not recommend that fixed income investments be concentrated solely in preferred shares, allocating a portion of the portfolio to this asset class may increase investment rewards while addressing often overlooked investment risks.

Claim: Principal Protection

The idea that the price doesn’t change is due solely to the fact that prices for individual GICs are not published – in the newspaper or anywhere else. At best, an investor holding a GIC in his brokerage account will see only the purchase price plus accrued interest – and this will simply keep increasing until maturity.

Any fixed-income instrument, however, be it a GIC, a government bond or a preferred share, is nothing more than a package of cash flows promised by the issuer. This package will be priced according to the market price of other packages and this applies to GICs as well as any other vehicle.

Consider two investors, Jane and Joe, who each have $10,000 to invest for a five year term. Joe buys a GIC, paying interest semi-annually at a rate of 3% per year. Jane buys a Government of Canada bond, with the same interest payments. Their expected cash-flows for the term of their investment are identical: ten semi-annual interest payments of $150 as well as the return of their $10,000 principal in five years. The guarantees are also effective (although not precisely) identical, assuming Joe’s GIC is covered by the Canadian Deposit Insurance Corporation.

The day after they have invested their money, however, misfortune strikes: five-year rates increase to 4%! They would have been better off had they waited a day before investing, but how much better off?

Jane goes on-line to see how much her investment is worth, and is chagrined to see that the price (per $100 principal value of her bond) has declined to $95.51. Since her original investment was $10,000, the value of her account is now only $9,551. The unfortunate timing of her investment – locking in for a five year term the day before the rate increase – has cost her $449.

When Joe goes on-line and looks at his brokerage account, he is most gratified to find that his account value is still $10,000. The brokerage is still reporting a price of $100 per $100 face value for his certificate … and they may even have accounted for the day’s interest as well, giving him a tiny profit!

Joe is inclined to lord it over Jane, claiming he’s a much savvier investor, until she points out that their packages of cash-flows were identical the day before and they’re still identical. They have both lost money (in that they would both be better off investing at the new rates rather than being locked into their old ones) – the only difference is that their brokerage reports a market price for bonds, but a historical price for GICs.

Those who claim that GICs have “less risk” than a government bond of the same term – and there are many who do – should carefully reconsider their approach to the selection of fixed income instruments. Ignorance may well be bliss, but it is hardly the foundation of a successful investment strategy.

It is true, of course, that an investment in a GIC will return the investment principal on maturity; this is by no means an irrelevant attribute, but it should not be the only attribute considered. All bonds make the same promise if the bond is purchased at its par value of $100. Investors should bear in mind, however, that the return of principal becomes less important to valuation as the term increases. At five percent, money doubles in fifteen years; therefore, return of principal in thirty years given a five percent yield represents only one-quarter of a bond’s value; the rest of the value is the thirty year income stream.

Claim: Impact of Interest Rate Changes is reduced

It cannot be denied that a portfolio of five GICs will normally produce a level of income that is less volatile than a portfolio consisting of a single issue repeatedly reinvested at maturity. This is simply a mathematical truism.

But why five issues? And why is the longest maturity a mere five years? A portfolio consisting of a single one-hundred year bond will – in the absence of default – produce annual income that does not vary at all. Such a portfolio would, of course, have a relatively high degree of inflation risk and price volatility risk; these risks will be addressed later in this essay.

The most significant influence on the overall level of interest rates is the business cycle, as central banks worldwide change their policy rates in response to their estimates of actual economic growth relative to potential economic growth. This suggests that if smoothing of income is the objective, then any ladder that is contemplated should span the expected time between severe recessions, not merely a five year period.

Claim: Ladders allow Investments for Longer Terms at Higher Yields

This is, again, a meaningless truism that does not address the fundamental issues. It is certainly true that five-year terms will generally have a higher yield than similar investments for a one year term – but why stop there? In a normal yield environment, yields will increase with term forever (in practice, data are reliable only to a term of thirty years), so this is certainly not an argument in favour of limiting fixed income investments to a five year maximum.

In the world of fixed income, the phrase “short-term” is used for instruments with a term of less than five years; medium-term refers to maturities five to ten years in the future; and long-term for greater than ten years. Balancing the various risks, most general-purpose bond portfolios should include investments from each category.

Consider, for example, this phrase from the Manulife Financial Annual Report for 2008:

“We establish and implement investment strategies that match the term profile of the assets to the liabilities they support ...”. In other words, the term of the obligations has a direct impact on the term of their investments, a technique known in the bond world as immunization. For how long do you expect your portfolio to provide you with income?

We can have a look at how insurance companies invest their assets in order to meet their obligations through a look at their annual reports. Not all companies disclose the term structure of their investment portfolio – and there are complicating factors, such as the use of derivatives and private equity to provide “bond-like” long-term investments – but the comparison may be fruitful:

As we see, the Sun Life Financial bond portfolio has over two-thirds of its value invested in bonds with term to maturity in excess of five years – issues that will not even be considered with the “normal” five year bond ladder.

It should be clear from the previous discussion that the Sun Life bond portfolio has much less reinvestment risk than the five-year GIC ladder, which is equivalent to saying that one may have more confidence in the projection of income from the portfolio in the future.

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Claim: A Portion of the Investment will become Due Every Year, Providing Liquidity

This is yet another truism, trotted out because it sounds good but having little other validity. One may make the same statement of an investment strategy in which the desired portion was invested in money market instruments, allowing the rest of the portfolio to be investments with any degree of illiquidity that the portfolio manager considered prudent.

It should be noted explicitly that a desire for liquidity has more importance with respect to GICs than to other potential fixed income investments, since a GIC is an extremely illiquid investment. On July 30, 2009, Royal Bank of Canada was offering a rate of 2.1% on five-year non-redeemable GICs in amounts of less than $100,000, whereas redeemable GICs were offered at 1.85%. The redemption option is even pricier than indicated by the headline rate, however: if cashed prior to maturity the interest rate actually realized could vary between 0% (if cashed in the first month) and 1.1% (if cashed prior to maturity but after four years).

If the GIC is transferable, it may in theory be sold to another individual, giving another source of pre-maturity liquidity. However, the secondary market for GICs exists only on an “if, as and when” basis and while a forced-seller might be able to get some kind of price for the GIC from a large, full-service broker, this is by no means assured and will probably result in a highly unsatisfactory price.

I am advised that certain banks will agree to early redemption at par in the case of the holder’s death, but this is a rather extreme price to pay for access to funds!

Thus, the argument that a GIC ladder provides annual liquidity is, at best, a red herring: it would not be necessary to emphasize the point so much if GICs were a more intrinsically liquid investment choice.

Claim: Ladders Reduce the Number of Necessary Decisions

I am convinced that this is the real reason why many retail investors and their advisors are enamored of five-year ladders.

The ‘one size fits all’ nature of the fixed income strategy allows advisors to brush aside considerations such as:

- the purpose of the portfolio
- the likelihood of the portfolio achieving that purpose
- the ability of the client to question the skill of his advisor

These elements should not be ignored when constructing a fixed income portfolio. The fixed income portfolio of a high-net-worth seventy-year-old retiree should be very different from that of a forty-year-old with a family and mortgage to support; but to the best of my knowledge these questions have not been addressed by any of the proponents of the strategy.

Given the lack of a defined purpose for the portfolio, it is of course impossible to estimate the likelihood of the purpose being achieved.

The fact that the advisor’s performance is not benchmarked in any way is very convenient situation for many advisors!

Claim: Clients Prefer to Take Their Risks with Equities

This argument is usually advanced in conjunction with the assertions that the GIC ladder is “risk-free” since return of principal is promised by both the issuing bank and (subject to certain limits) the CDIC.

The exclusive focus on principal value does investors a disservice. As has been discussed earlier, there is risk everywhere and there are risks in any choice of fixed income investment – only some of which are addressed through the maintenance of a GIC ladder. Additionally, risk cannot be thought of as a position on a number line: the risks borne by fixed-income investments and equities are different and portfolio values will respond in different ways to the same change in economic conditions.

On the one hand, those who invest in fixed income for a term that is longer than their needs run the risk of inflation and the foregone opportunities that might arise from higher interest rates after their investment: the Bank of Canada reports that a “basket” of goods that cost $100 in 1972 was priced at $253.92 in 1982. Investors in fixed income who took too long a view found the value of their investment significantly eroded.

On the other hand, those who invested in three month Treasury Bills (often held up to be a “risk-free” investment – and so they are, provided that the word “risk” is carefully defined to exclude their weaknesses) in September 1981 at the extraordinary rate of over 20% have seen their interest income from this type of short-term investment decline to a derisory 0.24% today – in other words, their current income is less than one-eightieth of the original levels. It should be noted that the twenty-eight year span of that investment is by no means too long a view to take for a healthy individual on the brink of retirement.

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4 According to that day’s quotes on-line at http://www.rbcroyalbank.com/RBC:SnlE96wWAA8ALBAGNR4/rates/gic.html
5 According to that day’s quote on-line at http://www.rbcroyalbank.com/RBC:SnlE96wWAA8ALBAGNR4/rates/gic.html
6 The “DEX 1-5 Year Laddered Government Bond Index” (available on-line at http://www.canadianbondindices.com/SCLGBI.asp, accessed 2009-7-31) is a reasonable benchmark for a five-year GIC ladder, but I have not seen any investment counselors providing a comparison to this index.
8 Scotia Capital, Annual Handbook of Debt Market Indices 1947-2004, no longer available on-line
In other words, an investor’s fixed income portfolio will, in theory, have an ideal average term (which may be referred to as the “investment horizon” in the jargon) and any deviation from this ideal will involve risk – both the risk of having maturities that are too long (inflation and price risk) or that are too short (reinvestment risk). These risks are addressed by matching assets to liabilities (immunization) and have nothing to do with ‘taking risks on equities’.

Fact: Reinvestment Risk May be Reduced

The great trade-off in fixed-income investing is between security of principal and security of income. It should always be borne in mind that these are opposing forces and that “fixed-income” does not have the same meaning as “fixed-price”.

All fixed income instruments carry with them a degree of reinvestment risk. The primary source of this risk is usually the reinvestment of principal, but can be complicated if the income is reinvested: yield calculations assume that income received prior to maturity is reinvested at the original yield, which is not always a valid premise.¹⁰

According to the Bank of Canada, the yields offered on five-year GICs had their ten year high in early 2000, when yields were just under 5.75%. Many investors, no doubt, considered this a very fair rate and were more than pleased to invest at this yield; disdaining the yields of 6.0 – 6.5% available on long-term Canada bonds (or the higher yields, taxed at a lower rate, on many preferred shares) on the basis of inflation, price risk and the relatively small term premium (the term premium is the additional yield received by the investor for increasing the term of his investment). Many will have quite happily invested in the GICs and spent the income, secure in the knowledge that their principal was guaranteed first by their bank with a back-up guarantee from the Canadian Deposit Insurance Corporation … but the story doesn’t end there.

Five years later, five year GIC yields were under 3% and investors who were dependent upon the income generated by these instruments saw their income cut nearly in half while buyers of the despised long-term bonds continued to enjoy the same semi-annual payments that they had originally purchased. Holders of the long-term issues had experienced a capital gain – but this is of only secondary importance, particularly for investors of a buy-and-hold disposition. The important thing is that the income stream derived from their investment did not change after the relatively short span of five years – and isn’t it “fixed income” that is of interest?

Fact: Price Risk is not Equivalent to Term

Many investors will assume that price risk and term are equivalent concepts, considering a thirty-year bond to have six times the price volatility of a five-year bond. This is not correct.

In the section dealing with the claim of Principal Protection, I noted that at 5% money doubles in fifteen years. Therefore a thirty year bond issued at par with a 5% yield has only one-quarter of its value represented by the future return of principal, with the remaining three-quarters of the value being derived from the thirty-year stream of interest payments. Since the interest payments are received prior to the return of principal, it should be clear that price risk – the risk that an investor will take a loss should he be forced to sell prior to maturity – does not increase on a 1:1 basis with term.

This is not intended to be a technical paper, but sometimes there is no avoiding it! The mathematical concept of Modified Duration\(^{11}\) allows the effect on price of yield changes on different fixed income instruments to be compared in a consistent manner. Modified Duration is computed by a formula dependent upon income payment frequency, the size of each income payment, the term until return of principal and the yield.

The Modified Duration of a five-year bond with a 6% annual coupon paid semi-annually and priced at par is 4.26. To a first approximation\(^{12}\), this means that an instantaneous change of 1% in absolute yield will change the price of the bond by 4.26%; if we invest in this bond and yields immediately increase to 7%, the price of the bond will be $95.74 per $100 par value; if the yield immediately decreases to 5%, the price of the bond will be $104.26 per $100 par value.

As shown in the chart, the Modified Duration of a normal bond increases rapidly with term for short- and medium-term instruments: the Modified Duration of a bond identical to the first, but with a ten-year term is 7.43 – almost, but not quite double the sensitivity of a five year bond.

As term increases, however, the effects of compounding reduces the relative importance of the return of principal: a thirty year bond otherwise identical to the first two has a Modified Duration of 13.84; less than double the price sensitivity to yield changes of the ten-year bond. And, in fact, there is a maximum value limiting the price sensitivity: a perpetual annuity, with no contemplated return of principal at all, has a modified duration of \(1/y\), that is, 16.66 at the given yield of 6%.

Price sensitivity does increase with term – but not on a 1:1 basis!

![Diagram showing Effect of Term on Modified Duration (Yield: 6%)](chart.png)

**Fact: Inflation Risk is Best Addressed by Other Asset Classes**

Readers must not think that I am dismissive of inflation, which has the potential to ravage long term fixed-income investments. Inflation is clearly one of the great enemies of fixed-income investors – but it is not the only one. Given that there are many risks – reinvestment risk the most often overlooked – the important thing is to ensure that as many as possible are accounted for in the construction of a total portfolio. Investors should examine the expected behavior of their portfolio when it is subjected to a wide array of stresses, in an effort to ensure that, overall, the portfolio will meet its objective of making the investor’s life better. This is the purpose of diversification.

The classic example of portfolio diversification caricatures the investment possibilities on a holiday island which has two major industries: an umbrella factory and a suntan-lotion factory. A wise investor will not choose one of these industries exclusively since this would amount to a bet on the weather; the portfolio should be split – not necessarily 50-50, but split – between the two investments so that the investor will not be risking all his money on meteorology.

It is clear that by extending term in the fixed income portfolio to reduce reinvestment risk an investor is increasing his exposure to inflation risk. That’s the trouble with investments! There is no such thing as “risk-free”; you cannot eliminate risk; you may only alter its characteristics!

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\(^{11}\) For more information on Modified Duration, see [http://www.prefblog.com/?p=864](http://www.prefblog.com/?p=864)

\(^{12}\) To refine the calculation to the level of second approximation, it is necessary to include convexity; for more information see [http://www.prefblog.com/?p=1640](http://www.prefblog.com/?p=1640)
How should this increase in inflation risk be addressed? To a certain extent, it must be accepted as the price one pays for the reduction in reinvestment risk that is achieved through lengthening term. However, the potential for extreme changes in the rate of inflation should definitely be addressed somewhere in an investor’s portfolio. I suggest that the fixed income portion of a portfolio is not the place to do it, since inflation is bad for all fixed-income; short-term bonds are considered better protected only because inflation is less bad for them than for long-term fixed bonds. In general, the investments that will respond best when confronted by inflation are commodities such as oil, copper and gold, and the common stocks of producers of these commodities. Hymas Investment Management does not provide advice on these securities; please consult your personal financial advisor for help on portfolio allocation.

### Preferred Shares

Preferred shares are a class of investment well suited for increasing term in a fixed income portfolio. In general, they have the following attractive attributes:

- Have first-loss protection in the event of issuer difficulties
- Dilution Protection
- Exchange Traded
- Pay dividends eligible for the Dividend Tax Credit
- Generally have after-tax yields much higher than bonds with similar credit risk
- Reinvestment Risk can be minimized with certain types of preferred
- Advisor skill may be judged by comparison to benchmark indices

It should be noted that Hymas Investment Management does not recommend preferred shares as a universal Panacea for all of any investor’s fixed-income needs. Preferred shares have their weaknesses as well as their strengths – like any other asset class – and should not be permitted to dominate a portfolio. Hymas Investment Management recommends that no more than half of an investor’s fixed income portfolio be comprised of preferred shares.

#### First-Loss Protection

Preferred shares have first-loss protection, which is the defining characteristic of a fixed-income investment. While first-loss protection is certainly not as good as a government guarantee – which is one of the reasons why the yield is higher than on GICs – investors may construct their portfolios to guard against the hazard of company failure by restricting their investments to high quality “investment grade” issues and by purchasing preferred shares from several different issuers rather than concentrating their portfolios in a single name.

The most important aspect of first-loss protection is that dividends on the preferred shares cannot be halted or reduced by the company until the dividend on common shares has been cut to zero. This means that the outlook for a company must be very grim indeed before the directors will contemplate tinkering with the preferred share dividend, as an elimination of the common dividend will make it much harder to recapitalize the company in the event of problems.

Additionally, preferred shareholders have a claim on the company’s assets that comes before the claim of the common shareholders, although it must be admitted that once the company has actually entered liquidation, there is usually not enough value to satisfy even the prior claims of the senior bond investors.

#### Dilution Protection

A preferred share represents a fixed claim on the company for a principal amount and for a stream of continuing dividends. Thus, when a company suffers a major loss – sufficient to hurt the company without destroying it completely – this loss is borne entirely by the common shareholders. If the company needs to recapitalize by issuing new common stock, the claims of extant common shareholders are diluted by the new issue, but the claim on the company represented by each preferred share is not affected.

#### Exchange Traded

When buying or selling preferred shares a full pricing history is available, together with the same information on comparables. Investors may therefore have more confidence that they are actually transacting at market rates when committing to an investment.

These desirable characteristics are not usually available for bond investors, which occasionally attracts the ire of self-proclaimed investor advocates. Additionally, retail investors rarely have much practical choice in selecting a counterparty for the bond investments – if they want to trade with a different dealer, they have to move their account, a lengthy, laborious and costly process. By its nature, an exchange gathers the best bid and offer from all investment dealers and other market participants at any given time.

The fact that preferred shares are exchange traded also means that – unlike GICs – the investment can be sold on any trading day to the highest bidder.

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The Dividend Tax Credit

This is an extremely important tax advantage; most taxable investors may multiply the yield on a particular preferred share by 1.4 to determine the amount of interest income that would be required to receive the same amount of after-tax income.14

This factor of 1.4, however, can vary according to the individual’s tax circumstances, mainly income level, province of residence and exposure to the Old Age Security “clawback” provisions. Please consult your personal tax advisor.

Higher Yields

After taking the Dividend Tax Credit into account, yields on investment-grade Canadian preferred shares are well above that available on long-term corporate bonds: on July 31, 2009, the yield on the “PerpetualDiscount” type was an average of 6.06% dividend yield, equivalent (at the normal factor of 1.4x) to 8.48% in taxable interest. Long corporate bonds at that time averaged about 6.3% interest.15 The Bank of Canada reports that five-year GICs were yielding 1.73%, taxable as interest.16

Minimizing Reinvestment Risk

Of all types of preferred shares, PerpetualDiscounts provide the investor with the minimum reinvestment risk with respect to principal, and it is for this reason that I have highlighted the yields of this class with a chart showing the same period as the chart displaying GIC yields. It is educational to compare the behaviour of the two types of yield: when anybody starts talking about “interest rates”, the first question to ask is “which interest rates?” Long rates are different from short rates; corporate rates are different from government rates … each rate exhibits its own behaviour.

PerpetualDiscount preferred shares:

• Have no stated maturity
• Can be called by the issuer at par (if not currently, then at some point in the relatively near future)
• Are trading below the price at which they may be called (hence, if called, will provide a capital gain in addition to the dividends paid before the call)
• Pay a fixed dividend every three months
• All major issues are fully eligible for the Dividend Tax Credit
• Are mostly issued by large regulated institutions, such as banks, insurance companies and utilities

It should be noted that PerpetualDiscount preferreds do not completely eliminate reinvestment risk, since the issuer has the ability to call the shares for redemption at any time after a given date. However, the fact that these shares by definition trade below their call price (in some cases, well below, since they were issued with yields much lower than today’s) gives a high degree of reinvestment protection to investors.

Other Types of Preferred Share

There are many other types of preferred share, each of which offers investors a different risk/reward profile. Hymas Investment Management examines all these various kinds, evaluates their attractiveness for investment, trades them for clients (including the pooled fund under management) and recommends the best of each class to PrefLetter subscribers.

The other types of preferred shares classified by HIMI are17:

• Floating Rate issues, with three sub-types:
  • RatchetRate
  • FixedFloater
  • Floater
• Operating Retractible
• SplitShare
• Interest Bearing
• Perpetual Premium
• FixedReset (all issues are now at a premium to their call price)

Past Performance and Advisor Skill

We may also look at past performance as an indicator, while remembering that Preferred Shares are only beginning to emerge from a ferocious bear market caused not by inflation but by the Credit Crunch: the following charts reflect the fact that the past two years have been highlighted by a great deal of panic selling.

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14 For details of how this calculation may be performed, see my blog post After Tax Yield Equivalency, available on-line at http://www.prefblog.com/?p=1255 (accessed 2009-8-3). For an example of how these factors can vary by income level and province, see my essay Retractible Preferreds and Bonds, available on-line at http://www.prefblog.com/?p=659 (accessed 2009-8-3). Note that the specific numbers used in this essay will now be out of date due to changing tax laws.

15 PC Bond Analytics, DEX Long-Term Bond Indices, available on-line at http://www.canadianbondindices.com/ltbi.asp (accessed 2009-7-31)


When judging the skill of any advisor, it is important to have a realistic benchmark. Most investors are familiar with the major equity indices, such as the S&P 500, but indices are available for a plethora of investment possibilities. There are several preferred share indices available for comparison purposes; the one with the longest history is the BMO Capital Markets “50”. All the indices seek to ascertain the reasonable expectations an investor may have for his investment in the given asset class.

In addition to comparing the total returns achieved by investments in a Preferred Share index and a five year GIC, I am also showing the returns that have been achieved over the same time-frame by Hymas Investment Management’s flagship product: Malachite Aggressive Preferred Fund. For details of the calculations, please see the notes following this essay – and remember, past performance is not necessarily indicative of future returns; these charts are provided for historical comparison purposes only.

The effect of differing taxes on dividends and interest are best shown in the chart for the period 2002–07. One may see that the pre-tax return of the Index and a GIC were almost equal for the five years, but that the lower tax rate payable on dividend income made the latter a much better choice for a taxable investor.

All three graphs, I am gratified to note, show the effect that a consistent, logical approach to preferred shares can have on returns: Hymas Investment Management’s Malachite Aggressive Preferred Fund (see http://www.himivest.com/malachite/MAPFMain.php) strongly outperformed its benchmark index in all three periods.
The fund is available only through Hymas Investment Management and invests solely in Canadian preferred shares. Investors may also assign trading authority for an account at a discount brokerage to the firm, which will allow management to concentrate on the full spectrum of fixed income possibilities in a manner tailored to the client’s needs.

Investors who would rather receive advice regarding their preferred share investments rather than discretionary management may prefer Hymas Investment Management’s PrefLetter (see http://www.prefletter.com), a monthly newsletter providing updates on the Canadian preferred share marketplace, recommendations spanning every class of preferred share and analytical notes providing further insight into the particulars of preferred share valuation.

Important Notes Regarding Chart Preparation:

MAPF is Malachite Aggressive Preferred Fund. Hymas Investment Management Inc. is Trustee and Portfolio Manager for the fund. Further information regarding the fund is available at http://www.himivest.com/malachite/MAPFMain.php. Management fees are charged directly to clients, rather than inside the fund as is normally the case; fund performance has been adjusted by reducing the fund’s reported total return by 0.25% every quarter for the period reviewed. Displayed returns reflect reinvestment of distributions. Historical performance is provided for comparison purposes only and may not reflect potential future returns. You can lose money through an investment in Malachite Aggressive Preferred Fund or with any other fund.

The Index is the BMO-CM “50” Preferred Share Index.

Data for the 5-Year GIC assumes compounding of interest, at a yield determined from the Bank of Canada’s ‘V121773=Guaranteed investment certificates – 5-year’ yield data.

After-Tax returns are estimated by applying a tax rate of 21% to returns from MAPF and Index; and applying a tax rate of 46.4% to the GIC return. Tax effects will vary according to an individual’s circumstances; please consult your personal tax advisor.