# An Optimized Approach to Core Plus Portfolios

Over the last decade, low interest rates and reduced expectations for potential returns in traditional asset classes have helped increase the popularity of fixed income Core Plus funds. These investment strategies, which typically combine a “Core” fixed income portfolio with alternative assets such as Global Bonds, Emerging Debt or Preferred Shares (the “Plus” component of the Core Plus), are designed to bring investors the additional yield that cannot be found within a traditional bond universe portfolio.

At Fiera Capital, we believe that great value can be obtained from a Core Plus strategy. However, significant care needs to be taken in the design of this type of investment solution, in order to minimize potential downside risks and liquidity stress during unfavorable market environments. In practice, this can be particularly challenging considering that in order to generate the additional yield, most Core Plus funds typically exhibit increased credit risk and reduced liquidity versus traditional Core mandates.

From a risk-return perspective, the selection of asset classes to include in the “Plus” component of a Core Plus fund plays a great role in increasing return and managing the overall volatility of the portfolio. What is equally important and much less discussed, however, is the many ways in which these additional asset classes can be integrated within the “Core” component of the Core Plus fund. Our belief is that to generate the best value from your Core Plus investment, both the Core and Plus components need to be carefully engineered to minimize overall volatility, tracking error and downside risks of the portfolio.

## Understanding the Fixed Income Universe

Most investors are familiar with the broad composition of the Canadian fixed income universe. In increasing order of risk, the investment-grade bond universe is composed of federal bonds (i.e., issued or backed by the Government of Canada), provincial bonds (issued by the various provincial authorities), municipal bonds and corporate bonds.

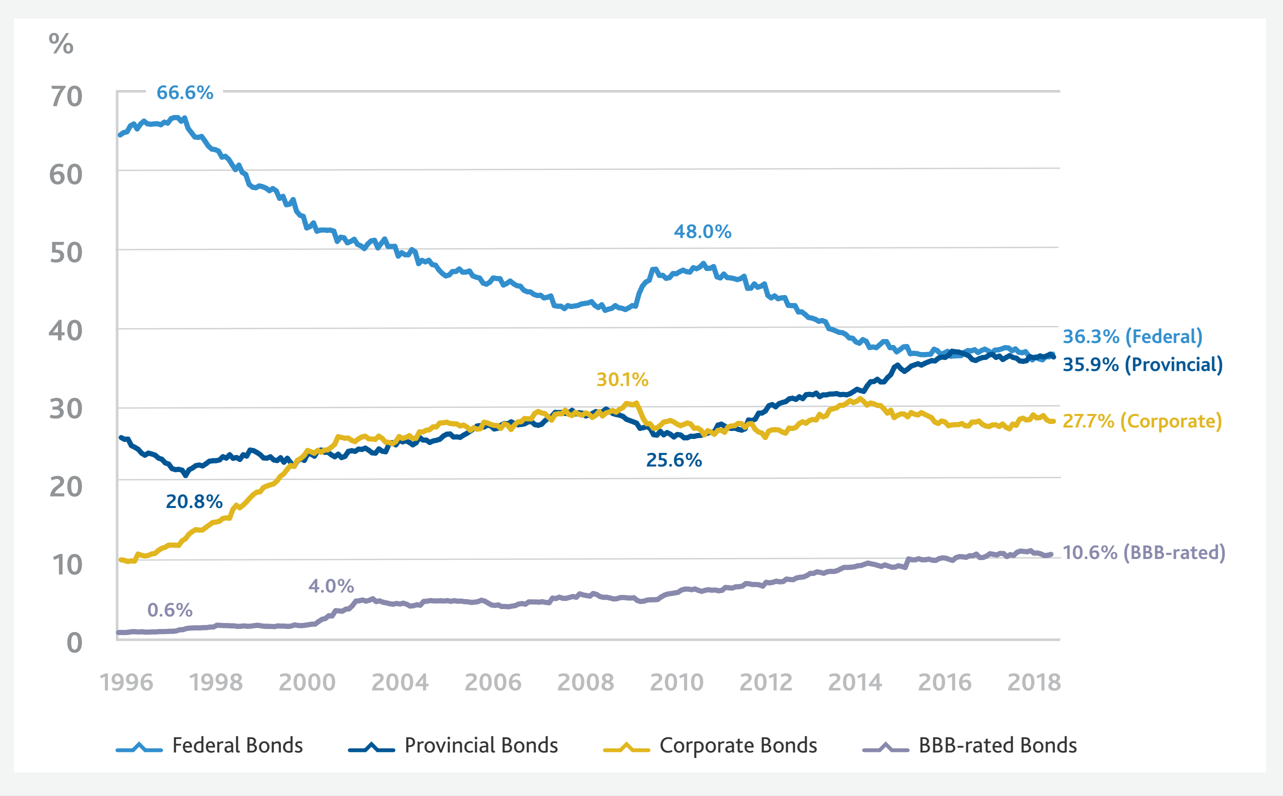
The corporate bonds universe can then be divided in different sub-sectors, such as finance, energy, communication, industrial and infrastructure, which can be further broken down in numerous other smaller groups. Some of these sub-sectors include issuers with different quality ratings, such as AA, A or BBB. Furthermore, given that debt securities can be issued with different terms, the bond universe can be split between short-term, mid-term and long-term debt, with each segment of the yield curve exhibiting different behaviors over the course of an economic cycle.

What is less commonly known is how much the composition of the Canadian universe has changed over the last few decades. Whereas federal securities amounted to over 65% of the investment-grade market weight 20 years ago, they merely account for a third of the market weight today.

Coincidentally, the weighting of BBB-rated securities has seen a seven-fold increase over the same period of time, from under 2% in the early 2000s to over 10% today based on the FTSE Canada Universe index.

While these types of variations have been happening more or less continuously over time, most of the changes can be linked to the level of indebtedness amongst the different debt issuers. Moreover, following the Great Financial Crisis in 2008, we have generally observed a strengthening in the credit ratings criteria from the various credit ratings agencies.

**Figure 1 – Composition of the FTSE Canada Universe (1996 – 2018)**




Source: FTSE Canada Universe.

Looking at the historical evolution of the Canadian bond universe (Figure 1) is relevant to the Core Plus discussion for two reasons.

First, the addition of any alternative asset class in a Core Plus fund must be carefully analyzed and balanced against the risk-return profile of the "Core" component of the Core Plus fund (typically federal, provincial and corporate bonds). Given the ongoing changes in the shape and composition of the fixed income universe, we cannot simply look at the historical behavior of the overall Canadian bond universe to fully assess the risks embedded in the Core assets.

On the contrary, it is imperative to model and understand the risk profile of each separate component of the universe, from sectors to sub-sectors, and from quality ratings to the term structure of each group of securities. Then, additional asset classes can be added to the Core Plus strategy with a precise understanding of how they would interact with the Core assets of the fund. Not only from an expected return outlook, obviously, but from an aggregate risk-return perspective that takes into account each component of the portfolio.

Second, dividing the "Core" component of a Core Plus strategy in many different sub-groups allows for a much more efficient integration of alternative asset classes in the "Plus" component of the Core Plus. The inclusion of additional asset classes can then be done in replacement of some specific parts of the "Core" assets, instead of one tranche of the whole Canadian fixed income universe.

For example, adding high yield bonds to a Core Plus fund could be justified from a risk-return perspective. However, the resulting risk profile would certainly be different if the capital allocated to these high-yield bonds comes from an under-allocation to federal bonds in the Core portfolio, or from an under-allocation to BBB-rated corporate bonds. In both cases, the Core Plus would benefit from a significant increase in the overall yield-to-maturity of the strategy, but the resulting impact on the tracking error and the added liquidity stress during market downturns would be very much different.

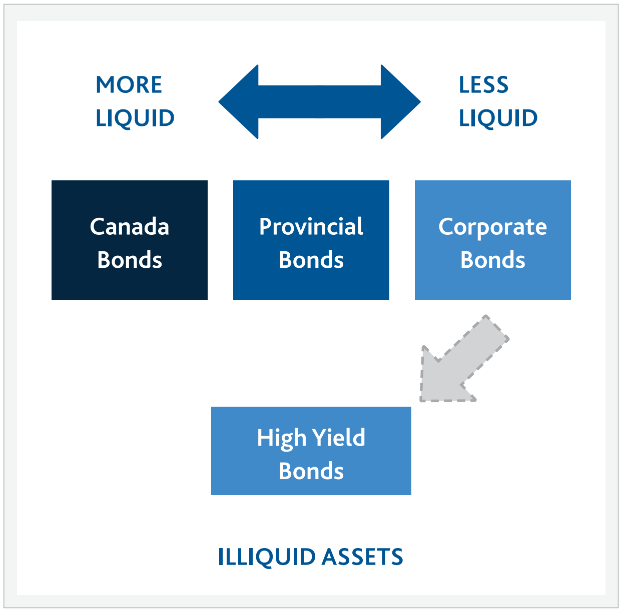
## Adding Alternative Assets to the Core Plus

By adopting a more sophisticated allocation process to add alternative asset classes to your Core Plus portfolio, instead of simply reducing the overall allocation to the Core assets, it is possible to create a much more efficient Core Plus strategy. The key step of the portfolio construction process, apart from selecting the best asset classes to include in the strategy, is to identify how best to integrate these additional assets within the Core universe.

To continue on the example above, we can observe a strong correlation between high-yield spreads and investment-grade corporate credit spreads. Given that both asset classes also exhibit a significant illiquidity risk premium, it can be much more valuable to add high-yield bonds in place of A-rated and BBB-rated corporate bonds, for instance, as opposed to reducing the allocation to the overall Core universe, which is composed of 72% government bonds.

In the former case, you can increase the yield-to-maturity of your portfolio while also reducing the absolute volatility of the Core Plus strategy, given the advantageous correlation between the sub-components of the Core assets. But more importantly, by replacing investment grade corporate bonds with high yield bonds, we are not losing as much liquidity as we would if we were to replace government bonds instead. Given that most Canadian investment-grade corporate bonds are already considered as illiquid instruments, especially in more stressful times, we are essentially replacing an illiquid asset with another illiquid asset (Figure 2).

### Figure 2 – Addition of High Yield Bonds

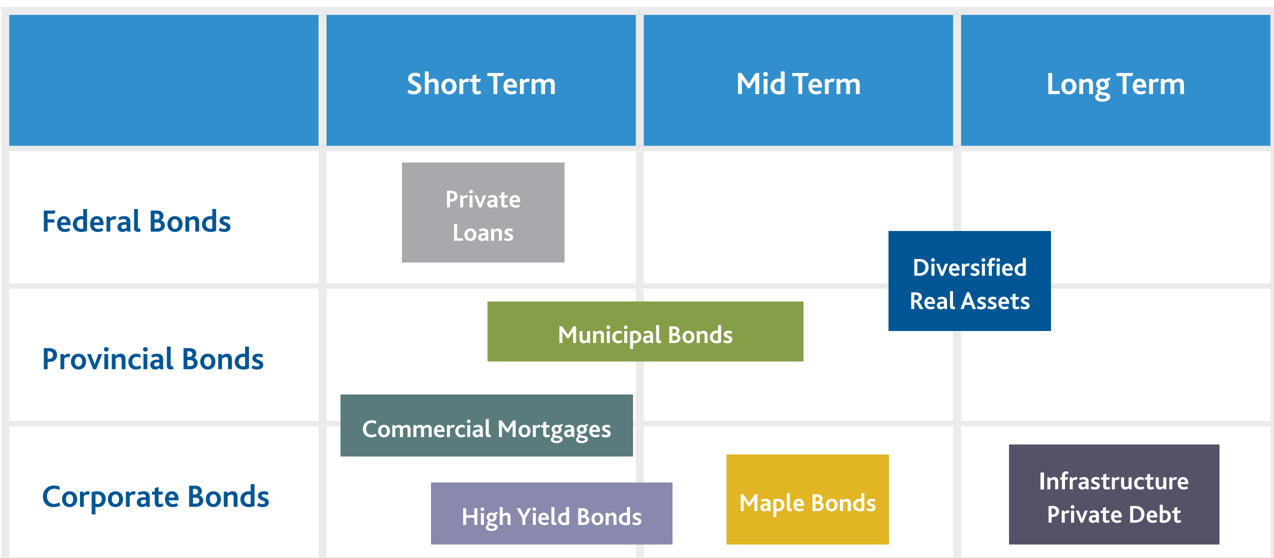



By applying a similar methodology across the Core fixed income universe, we are able to strategically enhance different components of our Core Plus strategy with alternative sources of credit. Other examples are commercial mortgages, which exhibit a strong correlation with short-term credit, and infrastructure private debt, which is highly correlated to long-term corporate debt, especially within the utilities and transportation sub-sectors.

In fact, infrastructure private debt can be used as an enhancement to the infrastructure bonds already included within the FTSE Canada Universe index. By doing so, it allows the Core Plus investor to extract the additional liquidity premium from the private debt at the lowest possible cost, both from an absolute volatility perspective and from a tracking error viewpoint versus the fixed income benchmark.

Figure 3 illustrates the structure of the Fiera Canadian Fixed Income Core Plus Fund, which takes advantage of different alternative asset classes in order to extract additional credit, liquidity and real assets risk premiums from the financial markets in the most effective and efficient manner, using the above-described methodology

### Figure 3 – Strategic Allocation of the Plus Components Within the Core Assets




## Dynamic Management of the Core Plus Strategy

Among the numerous advantages of an integrated approach such as the one described above, one key benefit is the opportunity to manage the duration and yield curve exposure in a more holistic manner. Many Core Plus funds manage the "Core" and "Plus" components of the strategy separately, which generally results in a short-duration bias versus broad market indices. This is due to alternative assets that typically have a shorter duration than the Canadian bond universe. By taking advantage of the integrated approach shown above, the Fiera Canadian Fixed Income Core Plus Fund removes any systematic bias from the portfolio strategy and ensures the best flexibility in terms of overall interest rate exposure across the yield curve. For example, adding a low-duration asset class such as private loans to the Core Plus fund would not create any bias, since the overall duration exposure would be adjusted in the Core component of the Core Plus to remain in line with the target duration of the benchmark index (by increasing the duration of the Core assets).

This dynamic mechanism is applied before any active decision is made with regards to the desired active duration and curve positioning. By removing the systematic biases from the Core Plus strategy, it is then possible to implement much more efficiently any desired adjustment to the duration, curve or sector positioning at the aggregate portfolio level, in order to actively take advantage of market opportunities.

Managing the risk metrics of the portfolio in aggregate, instead of looking at each component separately, has other benefits. One attractive advantage is that it allows the fund manager to tactically extract a specific risk premium from the market, without any other adverse impact on the strategy. It is hence possible to increase the allocation to one specific alternative asset class, without also impacting the duration or yield curve positioning of the aggregate Core Plus fund.

## Bringing it All Together

As mentioned in the introduction, it is our belief that Core Plus funds can be very beneficial for many investors. By taking advantage of different risk premia from alternative asset classes, it is possible to significantly increase the yield of a fixed income portfolio without increasing absolute risk. In fact, at the time this paper is published in early 2019, it is possible to create a Core Plus designed to deliver a yield-to-maturity that is more than 1% higher than the FTSE Canada Universe benchmark index, with reduced volatility in portfolio returns.

In order to fully take advantage of your Core Plus strategy, both the "Core" and "Plus" components of your portfolio should be optimized. Given the duration and interest rate risks embedded in both traditional and alternative fixed income asset classes, it is essential to analyze and evaluate both components simultaneously. This means that the impact and interaction of each asset class and each sub-group of the Core component should be carefully examined and scrutinized.

Many other factors need to be taken into account in the construction of a Core Plus strategy. Examples include the selection of the best asset classes to include in the portfolio, the establishment of optimal target weights for each sub-component or even the different manners in which tactical biases can be implemented within the overall investment strategy. Each of these items can have a significant impact on the investment risk budget and should be thoroughly analyzed. Only then will you be able to obtain a fully optimal, well-diversified Core Plus fund with no structural biases or duration constraints.