Bond Plus: A Risk Managed Approach to Return Enhancement

Key Takeaways

- Investors need solutions to overcome pain of low yields
- Private debt offers a unique “plus” lever for bond portfolios
- Opportunity for higher yields with less market risk

Prepared by:

Jafer Naqvi, CFA
Vice-President, Fixed Income & Multi-Asset

Over the last 10 years the institutional investment market has seen growth within “core plus” fixed income portfolios. Core plus portfolios retain the FTSE TMX Canada Universe Bond Index while incorporating investment opportunities found outside the benchmark. The most common “plus” components have been variations of credit risk, including but not limited to, high yield, foreign corporate bonds and emerging market debt. Asset managers provide access to a global opportunity set and hedge interest rate and currency risk back to a universe index profile.

We believe that private debt markets provide another lever for investors seeking to move beyond a traditional investment opportunity set for their core bond portfolios. Private markets are gaining traction on a total asset allocation level due to their return-enhancing and risk-reducing benefits. These factors can also be incorporated into a plus approach to fixed income, allowing for return enhancement with lower expected volatility than existing core plus strategies. The benefits are ideally harvested by pension plans and institutional investors that have long investment horizons and can afford to gain from private strategies, which are not traded on a daily basis.

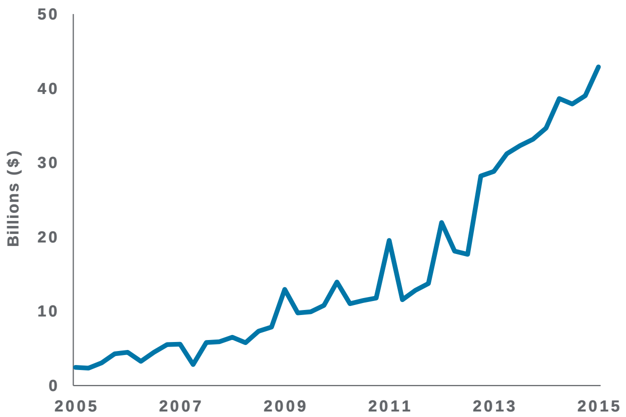
We label “Bond Plus” as an approach that utilizes private debt as the primary off-benchmark lever for enhancing returns against a universe bond benchmark. The unique nature of the Bond Plus approach makes sense for investors who have hesitated over the greater volatility found in other core plus approaches, as well as for core plus investors who seek a diversified source of value add.

A Primer on Plus

The popularity of core plus approaches can be seen in the tremendous asset growth experienced over the past decade. Data from eVestment Alliance reveals assets under management within the Canadian core plus universe have grown from $2 billion in 2005 to approximately $43 billion at the end of 2015 (Figure 1).

GREYSTONE
MANAGED INVESTMENTS INC

Figure 1: Canadian Core Plus AUM Growth



Source: eVestment, Greystone Managed Investments Inc.

The popularity of core plus strategies is due to their ability to incorporate additional value (or spreads) above what is found in the Canadian universe bond benchmark. To understand this we can deconstruct the returns for fixed income into two key components described in Figure 2:

1. Government bond yields
2. Risk premiums (or "spread")

Off-benchmark sources of spread for core plus managers include:

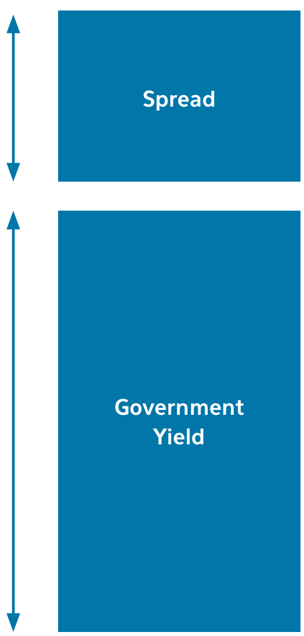
- Foreign investment-grade credit
- High yield bonds
- Emerging market bonds

In a core plus strategy, the asset manager will include investment opportunities found outside of the Canadian universe benchmark and hedge back unintended exposures such as currency and interest rates. This is different from a global bond mandate, which provides additional spread sources along with global interest rate and currency exposures. Given the domestic nature of most institutional liabilities, core plus has been an attractive option for enhancing returns while maintaining Canadian bond policy benchmarks.

Understanding Spread Sources

We can compare the common spread components of core plus strategies to evaluate the risk and return associated with the additional yield. At the bottom of the Figure 3, we add direct commercial mortgages to exhibit risk-return profiles for private market spreads. The spread column represents yield pickup over a risk-free interest rate and spread volatility measures the standard deviation of the yield pickup. Riskier credit sectors will generally exhibit higher spread volatility.

Figure 2: Composition of Fixed Income Returns



The largest determinant of fixed income returns is the change in government bond yields. The market value of bonds moves in the opposite direction of yields, meaning as yields rise/fall bonds generally lose/gain value. Some core plus strategies will incorporate interest rate exposure from countries outside of Canada as an additional interest rate lever. This is often a tactical component and the bulk of interest rate exposure for core plus strategies is still hedged to the Canadian benchmark.

Similar to interest rate movements, the market value for bonds containing a credit spread will react in the opposite direction to the spread movement. If spreads widen, this indicates a higher risk premium, which will cause bonds with credit exposure to lose value relative to government bonds. Conversely, when spreads narrow, this indicates a lower risk premium, and bonds with credit exposure will gain value relative to government bonds. In the long run, a higher spread should outperform due to higher income provided, as long as bond defaults do not result in losses that exceed the higher yield.

Source: Greystone Managed Investments Inc.

Figure 3: Common Spread Components (as of Dec 31, 2015)

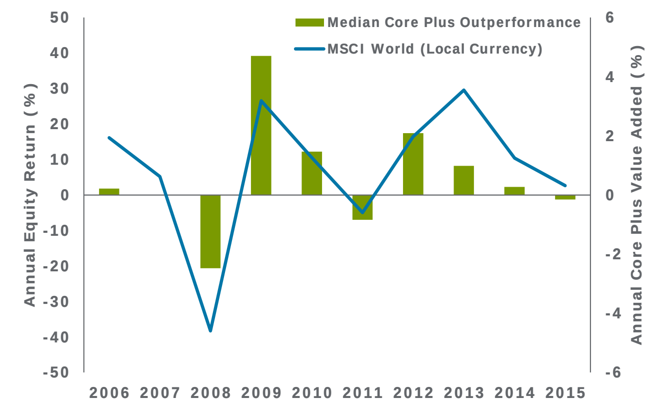
	Index Spread (Basis Points)	Spread Volatility (Basis Points)
Canadian Bond Sectors		
Provincial	83	24
Corporate	167	57
Typical Plus Sectors		
High Yield	695	317
Foreign Corporate	161	75
Emerging Markets	406	267
Private		
Commercial Mortgages	280	63

Source: December 1996 to December 2015 - Bank of America Merrill Lynch (Canadian Provincial and Municipal Index, Canadian Corporate Index, U.S. High Yield Master II Index, Global Broad Market Corporate Index); Greystone Mortgage Fund (mortgage spread), RBC 5-year commercial mortgage rate (mortgage spread volatility); August 2000 to December 2015) - Barclays EM USD Aggregate Bond Index. Varying dates are due to data availability. Spreads for universe bond sectors and commercial mortgages represent yield over similar duration government bonds. Spreads for plus sectors represent option-adjusted spread.

Immediately we can see some characteristics of core plus strategies versus universe bonds. Off-benchmark sectors provide an additional source of spread and yield; however, these are associated with higher levels of volatility. In contrast, private sources of spreads, such as commercial mortgages, can provide a comfortable yield enhancement while retaining the lower risk profile of sectors found within the FTSE TMX Canada Universe Bond Index.

The impact of spread volatility can be seen in the value-added history of core plus strategies. Figure 4 shows annual outperformance of the eVestment Alliance median Canadian core plus manager (green bars) plotted against the annual return of the MSCI World Index (blue line). If we look at credit spreads as another form of equity risk premiums it is not surprising to see the pattern of core plus performance: core plus strategies that offer higher risk exposure tend to outperform when equities do well and tend to underperform when equities sell off.

Figure 4: Canadian Core Plus Value Added vs. Equity Returns



Source: eVestment, Greystone Managed Investment Inc., Morningstar. Core plus outperformance is versus FTSE TMX Canada Universe Bond Index. Please see endnotes for disclosures.

Over a full market cycle, core plus strategies have met their objective of higher performance; however, it has come at the expense of a large benchmark-relative risk and a higher correlation of value added to equity markets. We believe there are opportunities with commercial mortgages which can help smooth out the ride and reduce the correlation of outperformance to other asset classes.

Understanding Private Debt with Commercial Mortgages

We view direct commercial mortgages as an attractive form of private debt. Most homeowners know the basics of a mortgage. It's a financial and legal instrument that secures the repayment of a loan by way of a registered charge against the underlying real estate. The borrower agrees to repay the loan, with interest, on a predetermined schedule.

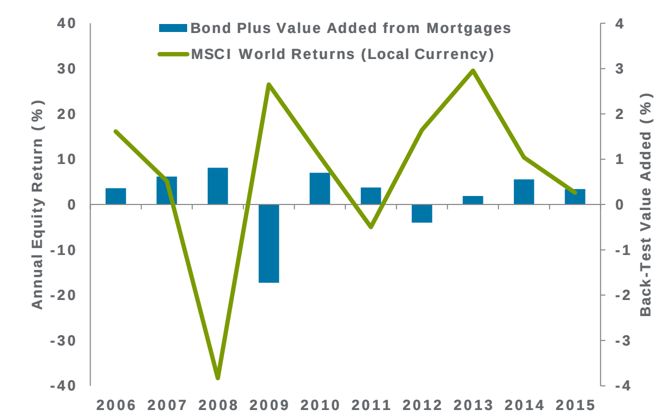
In its simplest terms, a commercial mortgage is a mortgage on a property other than a single-family residence. It includes loans secured by office, retail, industrial and multi-unit residential rental properties. The underlying real estate for a given loan can be at various stages in its life-cycle, from an income-producing-property to a parcel of land.

Direct commercial mortgages are originated by a lender and held on its balance sheet until maturity. Direct commercial mortgages are private in nature rather than a public market instrument that is traded daily. The private nature of direct commercial mortgages allows for yield enhancement above securitized mortgages and is the primary lever in a Bond Plus approach.

In order for the Bond Plus approach to benefit from direct commercial mortgages, it is important that prudent underwriting standards are followed, ensuring adequate return and risk exposure. A properly managed portfolio of direct mortgages can provide investors with a diversified credit exposure, secured by underlying commercial real estate. From a fundamental perspective, the secured nature of mortgages is an important advantage relative to the unsecured nature of corporate bonds. In some instances lenders can also gain recourse to the borrower's balance sheet.

To understand the impact of commercial mortgages in a fixed income context, we back-tested a portfolio that integrates mortgages. As commercial mortgages are generally shorter duration in nature to universe bond portfolios, we replaced short-term and mid-term corporate components from the FTSE TMX Universe Bond Index with mortgages. This resulted in a return stream that was duration neutral to the index. Given the back-test substituted corporate bonds for mortgages, the total weight of credit sectors also remains neutral to the benchmark.

Figure 5: Bond Plus Back-test Value Added

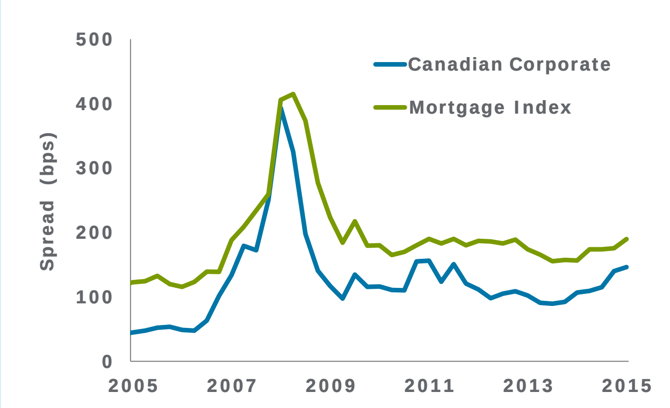


Source: FTSE TMX, Greystone Managed Investments Inc., Morningstar. Please see endnotes for disclosures.

Similar to core plus strategies, the back-test reveals a consistent value added from mortgages, due to the higher yield they provide. Interestingly, the two periods of underperformance are in direct contrast to core plus managers: a mortgage-based Bond Plus strategy outperformed in periods of weak equity markets (2008 and 2011) and underperformed in strong equity markets (2009 and 2012).

The return pattern can be explained by the movement of spreads (risk premiums) between corporate bonds and mortgages through the crisis. As highlighted earlier, any bond with credit risk will underperform when spreads move higher and outperform when spreads tighten. During market stress in 2008 and 2011, spreads on corporate bonds increased more than spreads on mortgages. Conversely, in 2009 and 2012 spreads on corporate bonds compressed more than mortgage spreads (see Figure 6). As a result, a portfolio with credit exposure in mortgages outperformed the benchmark when spreads were flat or wider, and underperformed when spreads tightened.

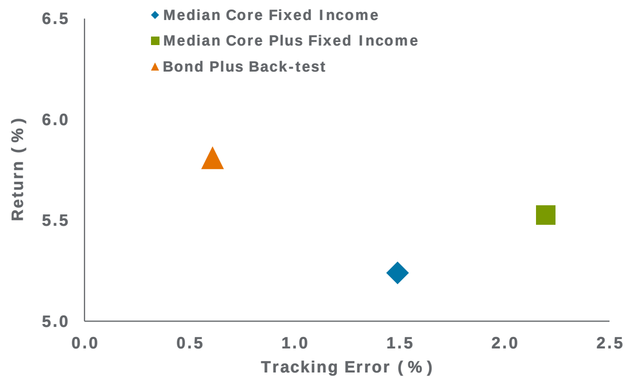
Figure 6: Canadian Corporate vs. Canadian Mortgage Spreads



Source: Bank of America Merrill Lynch Canadian Corporate, RBC 5-Year Commercial Mortgage spread.

Bringing it all together, the past 10 years reveals the risk and return pattern of core bonds versus core plus and Bond Plus (Figure 7). As expected, the higher spreads and higher spread volatility found in core plus mandates results in higher returns, along with greater benchmark-relative risk. A Bond Plus strategy utilizing direct commercial mortgages benefits from private market characteristics, which smooth out spread movements in periods of stress. This allows the portfolio to gain premiums above those in the universe bond benchmark, without a commensurate increase in benchmark-relative risk.

Figure 7: Return vs. FTSE TMX Canada Universe Bond Index Relative Tracking Error



Source: eVestment Alliance, Greystone. Ten-year monthly returns ending Dec 31, 2015. Bond Plus return includes mortgage value added and active value added from Greystone Fixed Income Fund to reflect duration and sector mix. Please see endnotes for disclosures.

The tracking error in Figure 8 shows risk relative to the FTSE TMX Canada Universe Bond Index. From a total portfolio perspective, the lower tracking error profile of Bond Plus versus core plus strategies provides a strong tool for risk budgeting. Core plus portfolios, while prudent sources of value added, can increase downside risk due to the correlation of their value added with equities. Direct commercial mortgages in a Bond Plus strategy can help offset the return pattern of core plus strategies and reduce the correlation to equities.

Figure 8: Ten-year Correlation of Value Added to Equity Markets

Median Canadian Core Plus Manager	0.46
Median Canadian Core Manager	0.31
Bond Plus Back-test	-0.04

Source: Greystone, eVestment Alliance, Morningstar. Monthly value added versus FTSE TMX Canada Universe Bond Index, ending Dec 31, 2015. Please see endnotes for disclosures.

Managing Liquidity

Unlike nominal bonds found in the universe benchmark which trade on a daily basis, private assets are traded relatively infrequently. Consequently, mortgages provide the best value through an open-end private fund vehicle. In such a structure cash flows can be managed even though underlying debt is not traded daily. This private nature is the source of some of the yield premium and should be understood by investors. We believe that institutional investors are well-suited to harvest this premium using a process similar to that used for other alternative investments. When an investor funds an allocation, immediate exposure can be gained through a core fixed income vehicle that trades daily and reflects the overall duration and risk of the Bond Plus strategy. Concurrently, a commitment can be made to the Bond Plus strategy. As the private vehicle calls for capital, the investor's assets are moved into Bond Plus. In this way, investors can transition the core assets without losing market exposure.

Similarly on redemptions, investors can access their fixed income holdings from Bond Plus and be provided a pro rata share of private fund units. Investors who require a liquidity buffer in their fixed income portfolio can opt to retain a portion of their holdings in a core strategy that is traded daily. By blending an allocation between core bond and Bond Plus funds that have the same overall risk profiles, investors can customize their desired mortgage and liquidity needs, while preserving similar duration and credit exposures (Figure 9).

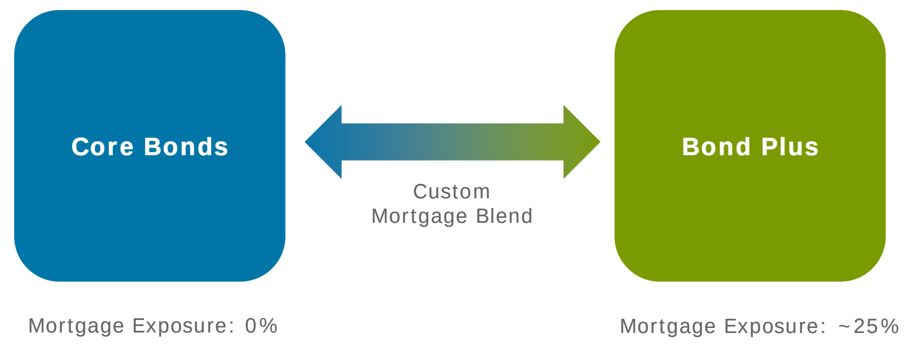
Hedging and Adding Value with High Yield Bonds

High yield as a complementary tool makes sense in a Bond Plus portfolio given return patterns vis-à-vis corporate bonds and private commercial mortgages. A Bond Plus strategy will hold mortgage exposure throughout the cycle to mitigate the need to trade in and out of a private asset class. As we noted, mortgages tend to outperform similar duration corporate bonds in periods of flat or rising credit spreads and underperform in periods of falling credit spreads. High yield bonds can provide a strong complement to mortgages as they can efficiently increase the credit risk of the portfolio when corporate bonds are attractive. Integrating high yield strategies at the right time and for the right price can enhance the overall return potential and can offset the value-added return pattern of mortgages.

Comparing Strategies

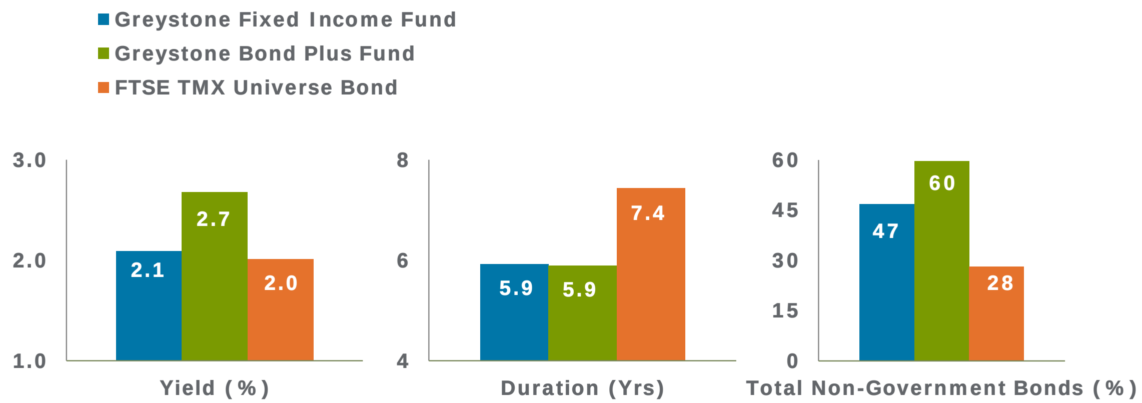
The yield enhancement from private mortgages can be integrated into an active fixed income approach resulting in value-added expectations over and above those from active management. As shown in Figure 10, we compare the Bond Plus strategy against a core fixed income approach and the universe benchmark. Bond Plus provides a 70 basis points yield pickup relative to both the benchmark and the core portfolio while maintaining a duration position that matches the core portfolio.

Figure 9: Customizing Mortgage Exposure with Pooled Funds



Source: Greystone Managed Investments Inc.

Figure 10: Comparison of Yield and Duration Between Strategies (As of Dec 31, 2015)



Source: Greystone Managed Investments Inc., FTSE TMX Global Capital Markets. Please see endnotes for disclosures.

Conclusion

We believe that private debt can be integrated for fixed income investors. Significant yield enhancement can be achieved while retaining the broad characteristics of a core fixed income strategy. This provides an additional active management lever to add value. The risk profile provides a favourable complement to existing core plus strategies, as well as a return enhancement for investors looking to add value while still anchoring risk closer to the benchmark.

Disclosure

This paper is confidential and may not be distributed, copied or shared by any employee, director, officer or agent of the recipient with any external party unless authorized in writing by Greystone.

The following figures: 4 (page 3), 5 (page 4), 7 (page 5), 8 (page 5) and 10 (page 6) contain hypothetical performance data for the strategy had it been available in the period in question. Hypothetical data is speculative in nature and based on assumptions. No representation is made that the actual returns will be consistent with those described herein.

This document is for informational purposes only. It is not meant as investment advice and is not an offer, solicitation or recommendation to purchase or sell any security. There is no assurance that any predictions or projections will actually occur. Past performance is not necessarily indicative of future results. Commentary reflects the opinions of Greystone Managed Investments Inc. as of the date of the document. This document was developed from sources believed to be reliable, but is not guaranteed to be accurate or complete.

FTSE TMX Global Debt Capital Markets Inc ("FTDCM"), FTSE International Limited ("FTSE"), the London Stock Exchange Group companies (the "Exchange") or TSX INC. ("TSX" and together with FTDCM, FTSE and the Exchange, the "Licensor Parties"). The Licensor Parties make no warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE TMX Canada Universe Bond and sub-indices ("the Index") and/or the figure at which the said Index stands at any particular time on any particular day or otherwise. The Index is compiled and calculated by FTSEDCM and all copyright in the Index values and constituent lists vests in FTDCM. The Licensor Parties shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Licensor Parties shall not be under any obligation to advise any person of any error therein.

Greystone Managed Investments Inc.

With over $30 billion in assets under management, we proudly serve universities, pension funds, multi-employer groups, endowments & foundations, insurance companies, and non-profit organizations.

We are a private company, majority-owned by our employees – over 90% of eligible employees are shareholders.*

Greystone has in-house expertise in the following areas:

FIXED INCOME
- Short-Term,Universe, Long-Term
- Corporate, High Yield
- Bond Plus
- Liability Driven Investing

EQUITIES
- Income & Growth
- Canadian,U.S.,Global, International, China
- Canadian Small Cap

REAL ASSETS
- Real Estate
- Infrastructure

PRIVATE DEBT
- Mortgages

MULTI-ASSET
- Target Date Funds
- Balanced
- Alternative Balanced
- Alternative Suite

FOR FURTHER INFORMATION PLEASE CONTACT:

Toll Free: 1.800.213.4286
Email: inquiries@greystone.ca

REGINA (HEAD OFFICE)
300 Park Centre
1230 Blackfoot Drive
Regina, Saskatchewan S4S 7G4
Canada

TORONTO
77 King Street West
Suite 4510, TD North Tower
Toronto, Ontario M5K 1J3
Canada

WINNIPEG
201 Portage Avenue
Suite 1907
Winnipeg, Manitoba R3B 3K6
Canada

HONG KONG
Suite 1, 12/F
International Commerce Centre
1 Austin Road West, Kowloon
Hong Kong

Greystone.ca

* An eligible employee is defined as contributing one or more years of service to Greystone.

(08/2016)