

# Russell Research

## The Case for Global Bonds in a Canadian Fixed Income Portfolio

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### Executive Summary

Canadian fixed income investors have enjoyed strong returns in the recent past by staying fully invested in index only sectors and securities as Canadian debt markets withstood the financial crisis better than most global bond markets. Regardless, Canadian fixed income managers have learned a number of lessons in the aftermath of the financial crisis and some have implemented changes in their investment management practices. One of the key lessons learned was to look at liquidity, credit and sovereign debt risks in a new dimension. While near term uncertainty and volatility looms over the fixed income markets, longer-term opportunities are becoming increasingly apparent. In this post crisis world, the fixed income landscape globally is experiencing secular structural changes. Canadian fixed income markets are no exception. All of these factors have implications for how fixed income investors should position their portfolios. In this paper, we discuss some of these factors and their investment implications. We also attempt to address some of the concerns investors have regarding global bond investing. We argue that selectively adding non-index exposures enhances the risk-return profile of a portfolio in this post crisis world.

In the first part of this paper, we make a case that global bond investing offsets some of the structural inefficiencies and challenges of the Canadian debt markets. The first challenge being the relatively small size of the Canadian bond market on a global scale. In this post crisis world, managing liquidity has become a key risk management factor. Larger global bond markets offer better liquidity and pricing transparency. Another structural challenge facing Canadian investors is the limited breadth of sectors. While the Canadian Corporate debt sector has grown over the years, the Canadian debt market remains dominated by Government issuers making up over seventy three percent of the outstanding bonds included in the index. Similarly, the Canadian Corporate debt market offers limited industry diversification compared to other global bond markets. This effectively places Canadian investors at a relative disadvantage and exposes them to unintended sector and issuer specific risks. Another structural challenge includes the supply and demand dynamics. The recent supply trend has been below the longer term trend, whereas demand has been above trend, and even includes non-traditional<sup>1</sup> fixed income investors. Canadian bonds are currently in favor due to the recent past strong performance and a need for yield from changing population demographics. But, these factors have also made Canadian bonds more expensive on a global relative value scale.

In this paper we also attempt to address the elements of risk introduced by adding global bonds, which have traditionally been barriers to global bond investing. Does Canada offer better credit risk relative to global counterparts? Historical default and recovery rates show that Canadian bonds offer no meaningful credit risk advantage over global bonds. We also show that in a worst case scenario of a default, investors have a higher probability of recovering their monies in the US relative to Canada.<sup>2</sup> On the volatility side, Canadian debt sectors offer one of the lowest volatilities across global bond markets and sectors. This factor alone has discouraged investors from venturing outside of Canada. However, we argue that these traditional measures of risk and risk-adjusted returns have numerous limitations. Most importantly, greater return volatility does not equate to higher risk.

We support our investment view by performing an empirical analysis of the pre and post crisis performance data. In this analysis, we compare Russell's proprietary Universes of Core and Core Plus<sup>3</sup> products. Empirical analysis shows that the volatility of returns for Core Plus managers is not much higher than Core managers. It also shows that managers who have included non-index sectors, on average, have outperformed managers who stayed fully invested in index only sectors. We believe that this is because Core Plus managers have a significantly broader opportunity set that allows them to implement multiple strategies at any stage of the economic cycle. Hence, investors significantly enhance their upside return potential with only incremental increase in volatility.



Finally, we revisit the benefits of including global bonds in light of the Modern Portfolio Theory (MPT). We also look at historical correlations between the various fixed income sectors and between the various global fixed income markets to test their integrity during times of crisis. We attempt to address concerns that broad diversification failed during the peak of the market downturn. We make a case that in this post crisis world, adding global bonds provides the key benefits of incremental yield, better diversification and higher returns.

We support allocations to global bond sectors on a strategic rather than tactical basis due to the difficulty of timing the market. A Core Plus manager, by virtue of their access to multiple return drivers, have better abilities to adjust the portfolio to changing economic environments compared to a domestic only manager. For example, in a rising inflation and interest rate environment, Core Plus managers can take positions in sectors which are less sensitive to interest rate risk e.g. high income sectors and Floating Rate Notes (FRN)<sup>4</sup>, among other strategies<sup>5</sup>.

In the end, we caution investors on the importance of their manager selection process, as there is no standardized framework for a Core Plus type product and the dispersion of returns are greater for Core Plus managers compared to Core managers. Additionally, no single Core Plus manager in our Universe has the expertise across all global bond markets and sectors.

## Background of 'Core Plus' Style of Fixed Income Investing in Canada:

While Core Plus as a standalone product has been around for over ten years in Canada, this segment continues to evolve. Interestingly though, there is no standardized framework of a Canadian Core Plus style product. Each product's structure varies in terms of allocations to the non-index (global) bond sectors<sup>6</sup>, which is a factor of the allowed manager discretion per the investment policy statement, as well as on the firm's expertise in a certain area of the markets. Asset growth has been slow in this segment in Canada, but we continue to see a push from the managers. In 2005, the Federal government repealed the Foreign Property Rule and it was hoped that investors would respond positively by venturing into or increasing their allocations to global fixed income sectors. However, both institutional and retail investors exhibited an initial aversion to global bond sectors, specifically high yield and Emerging Market Debt due to their historically higher credit risk relative to Canadian investment grade credits.

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<sup>1</sup> Some of the non-traditional fixed income investors includes equity managers, hedge fund managers and foreign investors.


<sup>2</sup> Please see discussion around Exhibit 13.

<sup>3</sup> Russell defines 'Core' style as a portfolio consisting primarily of domestic only fixed income securities with only marginal tactically driven positions in non-indexed and global fixed income securities. Russell classifies 'Core Plus' as a product that strategically maintains a significant exposure to non-indexed and global bond sectors across an economic cycle. In addition to the traditional index sectors, Core Plus also holds exposure to one or more of the following sectors; high yield, Emerging Market Debt, MBS (mortgaged Backed Securities), CMBS (Commercial Mortgaged Backed Securities), Inflation Linked Bonds (ILB), among other global bond strategies. A Core Plus product can also take positions in foreign bonds on a currency hedged or currency unhedged basis. Use of derivatives for both alpha and beta management is also quite common among the Core Plus product managers. Please note that while Russell makes available data on the Core Universe to subscribers, data on the Core Plus Universe is not yet available for subscription.

<sup>4</sup> FRN's are debt instrument with a variable interest rate. Interest adjustments are made periodically and are tied to a benchmark reference rate such as Treasury bill rates or LIBOR. They provide holders with some protection against rises in interest rates, but pay lower yields than fixed rate notes of the same maturity.

<sup>5</sup> Some of the interest rate hedging strategies available to Core Plus managers are: 1. Taking positions in global high income sectors e.g. non-Canadian corporate bonds, high yield, private placements, EMD etc. These high income sectors are less sensitive to interest rate risk. The interest income and capital gains offsets some of the negative impact from rising rates and falling prices. 2. They take positions in countries with divergent monetary policies. 3. Increase exposure to global Inflation Linked Bonds (ILBs). 4. In addition to cash bond positions, Core Plus managers can tap into the derivatives market to hedge interest rate risk on a limited basis. For example, Interest Rate Futures, Swaps, Options and Swaptions.

<sup>6</sup> In this paper, we use the terms non-index and global bonds interchangeably. In addition to bonds issued in a foreign bond market, non-index exposure can also include Canadian issued Maples Bonds, Commercial Mortgage Backed Securities (CMBS) and Real Return Bonds (RRB). Note: Maples bonds are denominated in Canadian dollars and are sold in Canada by foreign issuers.



Historically, Canadian investors have fulfilled their foreign asset ownership appetites by investing in international equities as bond market returns have paled in comparison to expected equity returns. Additionally, investing in the Canadian bond market has historically been rewarding<sup>7</sup>.

In the last five years, we have seen a number of new Core Plus type products come to the market and even seen a few disappear due to poor performance. This is what makes manager selection even more critical in this area. Russell's Universe of Canadian Core Plus managers now consists of sixteen products. It should be noted that some managers also offer a Core Plus style managed against the DEX Universe Long Term Bond Index. The long benchmarked product has an identical product structure and manager biases. Presently, there are less than five Core Plus type long bond products in our Long Bond Universe.

Given the structure of the Core Plus type product, a majority of the managers offering this product are domiciled in the US. Generally, Canadian domiciled Core Plus offerings will have a greater percentage of Canadian content with a less aggressive stance towards global bond sectors compared to their US based peers. However, it is important to note that a higher domestic content does not equate to a lower risk portfolio<sup>8</sup>. We believe that Core Plus as a style is underappreciated in Canada, but will get greater attention as market dynamics are changing in this post crisis world, which is the basis of our investment thesis that investing in global bonds will be even more rewarding for Canadian investors.

## **Global Bond Investing Offsets Some of the Unique Challenges of Domestic Only Fixed Income Investing**

In this section we discuss some of the unique structural shortcomings of the Canadian fixed income capital markets from the perspective of a fixed income investor.

### **1. Liquidity is a Factor of the Bond Market Size**

While Canada has a well developed and mature bond market, it remains small on a global scale. As can be seen in Exhibit 1, the Canadian bond market represents only 3%<sup>9</sup> of the global investment grade bond market. The Canadian proportion gets even smaller if we include below investment grade bonds. The US has the largest bond market with 39% of the global market followed by Japan at 19%. Therefore, it is not difficult to see how Canadian investors can exponentially expand their investable Universe by going global. Additionally, the size of the bond market matters when it comes to managing an efficient and liquid bond portfolio. Most bond markets remain decentralized and over-the-counter (OTC) markets, including Canada. Unlike a centralized or exchange traded market structure, a OTC market structure has a number of inherent challenges with key ones being higher trading costs and less liquidity. Another significant structural challenge in the Canadian market is a lack of pricing transparency, which is a factor of its small size and the OTC structure. Bond trading costs generally decrease with credit quality and issue size among other factors. Canadian fixed income investors can optimize their portfolio in terms of improved trading costs and enhanced liquidity by selectively taking positions in significantly larger global bond markets.

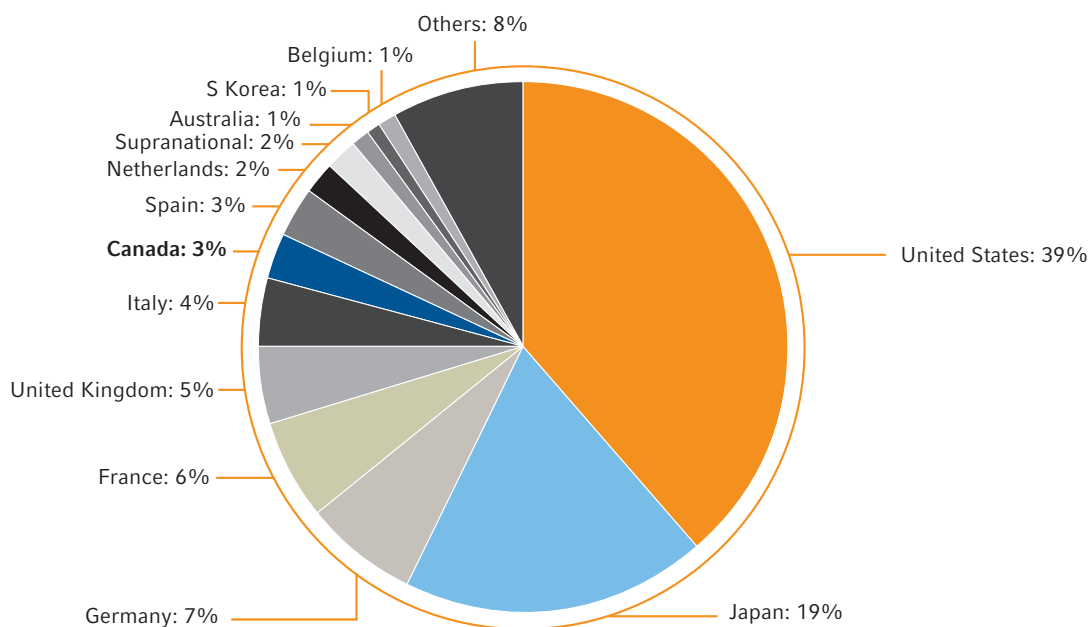
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<sup>7</sup> Based on the longer term historical returns of the developed bond markets globally. Please see Exhibit 16, Value of Fixed Income Diversification.

<sup>8</sup> Measuring risk is complex and beyond the scope of this paper. In a simplistic approach, risk can be measured in absolute or relative terms i.e. against an index or standalone based on the fundamentals of a portfolio. Our point here is that we may get different results in comparing the risk levels of a Core vs. a Core Plus portfolio as it is a factor of the methodology used to measure risk.

<sup>9</sup> Based on the market capitalization of the Barclays Capital Global Aggregate Index as of September 20, 2010. The Barclays Capital Global Aggregate Index provides a broad-based measure of the global investment-grade fixed income markets.

## Exhibit 1: GLOBAL BOND MARKET



Source: Barclays Capital Global Aggregate Index. Note: All data as of June 30, 2010.

## 2. Breadth of the Canadian Bond Market

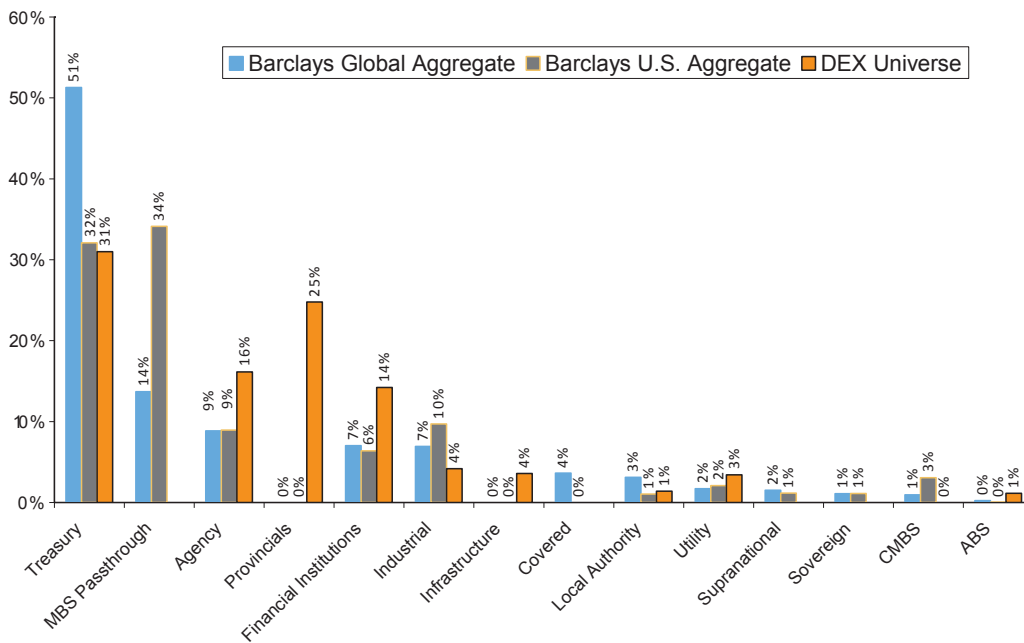
While the Canadian corporate debt sector has grown over the years, it remains small relative to other global bond markets. This is another structural challenge facing Canadian fixed income investors who restrict themselves to the DEX Universe Bond Index sectors i.e. limited breadth of investable sectors. It is important to note that lack of breadth reduces the alpha potential for investors. Refer to Exhibit 2, which shows the sector composition of the DEX Universe Bond Index, Barclays US Aggregate and Barclays Global Aggregate indices. The Canadian bond market is dominated by Government (Treasury/Agency/Provincials) issuers, which make up over 73% of the market capitalization of the index. In comparison, government issuers make up 60% of the outstanding global bond market. The government component is even less in the US, where it makes up 41% of the outstanding bonds.

Looking deeper into the Canadian corporate debt market, it is dominated by financial issuers who make up over 52% of the outstanding corporate debt. Other sectors are significantly smaller, especially in terms of market value of the outstanding bonds. For example, the second largest sector is Infrastructure at 14%. In Exhibit 2, we observe that the Canadian market does not have many of the sectors available in global bond markets, or at least they are not included in the DEX Universe Bond Index e.g. MBS Pass-throughs and CMBS. Additionally, the Industrials sector in Canada is small with only a handful of large issuers relative to the other global bond markets. This structural concentration exposes Canadian fixed income investors to unintended risks. Canadian managers who own domestic only fixed income assets will have significant positions in Canadian banks and diversified financials, including insurance companies, and are exposed to sector specific and/or name specific risks. For example, the financial crisis rocked the once stable and fundamentally solid Canadian insurance sector's business model by exposing their vulnerability to equity and credit market declines.

A case in point, Manulife Financial Corporation (MFC) once commanded Standard and Poor's highest credit rating of AAA as late as February 2009 and was the highest rated Canadian corporate issuer at that time (equivalent to the rating of the Government of Canada). MFC has since been downgraded by two notches, and insurance company bonds now trade at a significant discount to Canadian banks.

This has hurt the performance of a number of Canadian fixed income managers. Similarly, Canadian banks, though presently have solid credit risk profiles, do expose investors who have large positions to sector specific risks. For example, during the financial crisis banks underperformed other sectors due to their higher sensitivity to the global economic environment. In fact, Canadian banks have underperformed the broader corporate market in 2010 (year to date as of September 30, 2010) due to renewed concerns regarding the economic recovery. Additionally, it is important to note that while historically there has been very little price differentiation between the different types of bank securities, during the crisis, spreads of Tier 1 notes widened significantly more than Bank Senior notes and Bank SubDebt notes. This caught a number of Canadian fixed income managers by surprise as they found themselves holding Canadian bank debt they believed had little credit risk differentiation from other bank securities.

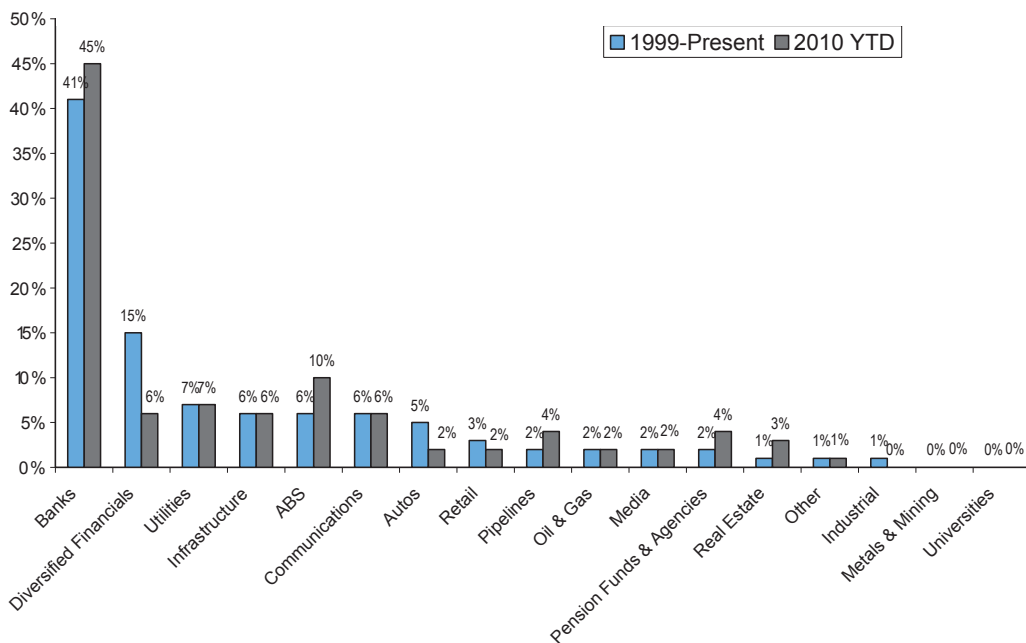
**Exhibit 2: BROAD SECTOR DIVERSIFICATION: CANADA Vs. US Vs. GLOBAL**



Source: Barclays Capital and PC Bond. For Barclays Global Aggregate, ABS exposure is 0.23% and is rounded to 0% in the chart above. For Barclays US Aggregate, ABS exposure is 0.03% and is rounded to 0%. Note: All data as of June 30, 2010

We observe similar historical trends from looking at the new issue market for corporate debt in Canada. Exhibit 3 includes both investment grade and high yield issues of Canadian corporate issuers going back to 1999. Banks and Diversified Financials have historically dominated the new issue market in Canada, making up 56% of the total new supply. Hence, managers who restrict themselves to the domestic new issue market are faced with a significant exposure to the Canadian financial sector. Again, the increased breadth of available global markets should lead to increased alpha potential.

### Exhibit 3: HISTORICAL CANADIAN CORPORATE SECTOR NEW ISSUANCE



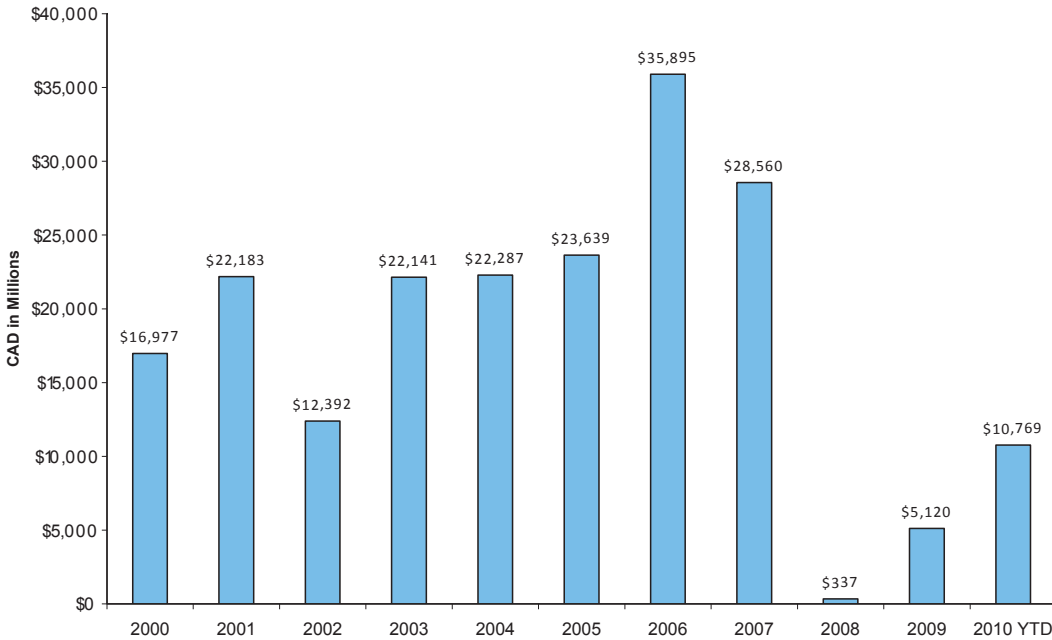
Source: BMO Capital Markets, Bloomberg (2010 YTD as of October 22, 2010)

### 3. Supply and Demand Dynamics of the Canadian Bond Market

Supply and demand economics also apply to bond valuations. In Exhibit 4, we show net new annual issuance for corporate debt in Canada. Net new issuance takes into account debt maturities for that year and is a better measure of new supply available to investors. Aside from other price/spread determinants (e.g. credit risk and maturity), the level of net new supply also has an impact on corporate spreads. As can be seen in the chart below, net new issuance in 2010 YTD at \$10.7 billion is significantly below the levels seen prior to the crisis and compared to the levels for the most part of this decade. On the demand side, Canadian corporate bonds are attracting even the non-traditional buyers and foreign investors in this post crisis world. This increase in demand can be attributed to a few factors including investors moving out of equities (as they grossly underperformed fixed income assets during the crisis). Other factors include the strong performance of Canadian corporate bonds in 2009<sup>10</sup>, and broadly a demand for yield by an aging population.

<sup>10</sup> Please see Exhibit 16, Value of Fixed Income Diversification

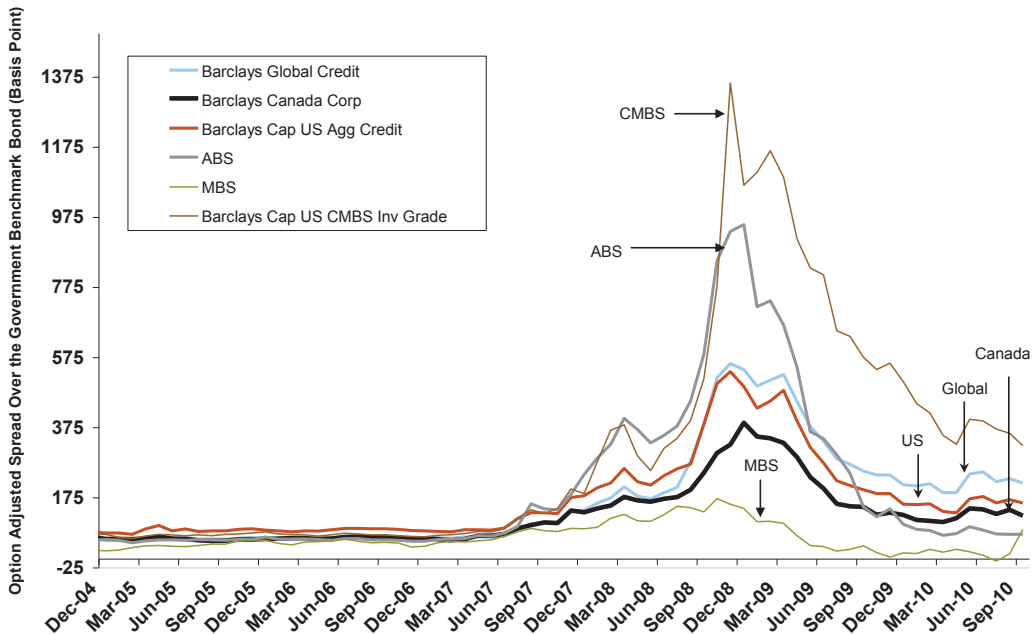
**Exhibit 4: ANNUAL NET NEW\* CANADIAN CORPORATES DEBT ISSUANCE  
(\*New Issuance Less Maturities)**



Source: BMO Capital Markets, Bloomberg. Note: Includes All Corporates as at September 30, 2010

These supply and demand dynamics are bidding up the prices of Canadian corporate bonds more than in other bond markets. Unless supply increases significantly over the near to mid term, Canadian corporate bonds will likely trade expensively (i.e. offer a lower yield) compared to their equivalents in other global bond markets. In Exhibit 5, we show index level average spreads of Canadian Corporates against US, Global, ABS, MBS and CMBS markets. We can see that the average (indicative) spread level of the Barclays Canada Corporate Index is tighter (lower) than the Barclays Capital US Aggregate Credit and Barclays Capital Global Credit. Though this is a simplistic approach and does not take into account other factors such as actual spreads, credit risk and swap spreads, it does show that the corporate debt in Canada broadly trades at a premium to corporate debt in other global bond markets especially in the investment grade segment.

## Exhibit 5: CANADIAN CORPORATE SPREADS VS. GLOBAL CORPORATE SPREADS Canadian Corporates Trade More Expensive



Source: Factset, Russell Investments. Note: Data from 11/30/2004- 9/30/2010

### Traditional Barriers to Global Bond Investing markets.

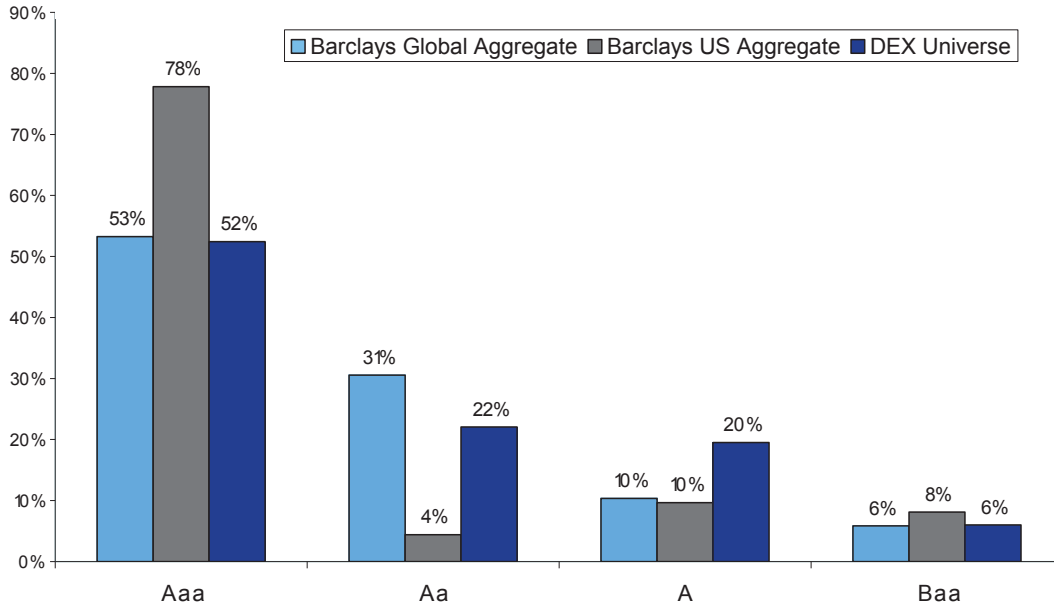
In this section, we attempt to address the potential elements of risk introduced by adding global bonds which have traditionally been barriers to global bond investing.

#### 1. Does Canada offer Better Credit Risk?

For some investors, owning non-Canadian bonds is analogous to having greater risk. We compare the Canadian market with the global bond markets to determine whether Canadian credits are indeed better credit risk. Using one of the key indicators of credit quality i.e. credit rating, we first perform a comparison analysis of the compositions of the key market indices. Exhibit 6 shows the credit quality breakdown of the DEX Universe Bond Index, Barclays Global Aggregate Index and the Barclays US Aggregate Index. As can be seen, the Canadian index does not have any advantage in terms of superior average credit quality. In fact, the key US market benchmark i.e. Barclays US Aggregate has a significantly higher percentage in the AAA bucket at 78% compared to the Canadian index at 52%. The credit quality breakdown of the Canadian index is somewhat similar to the global index. Therefore, investors who stay close to the Canadian index as a matter of risk avoidance do not necessarily have a credit quality advantage.



## Exhibit 6: CREDIT QUALITY: Canada Vs. US Vs. Global

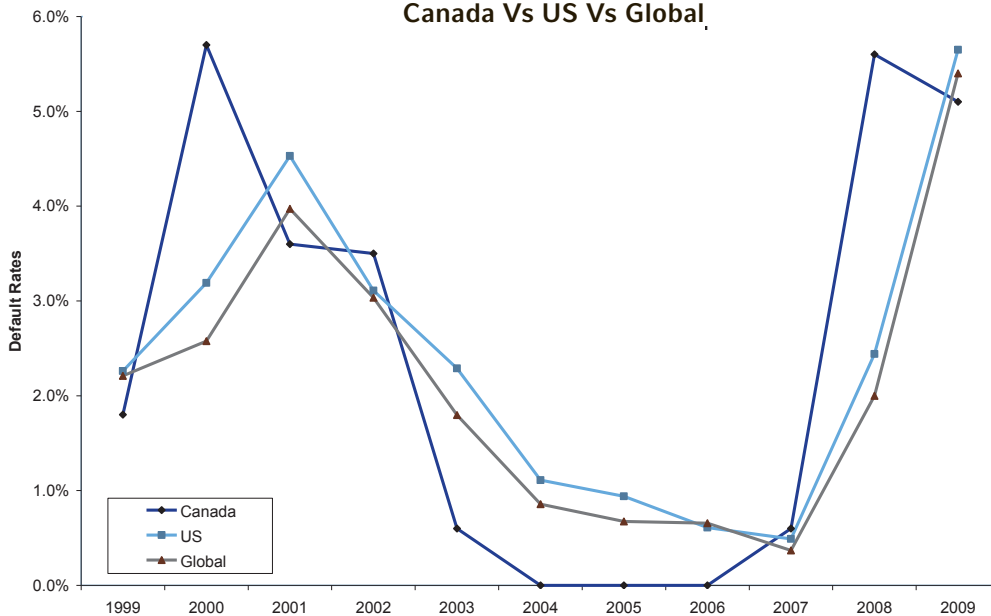


Source: Barclays Capital and PC Bond. Note: All data as of June 30, 2010.

Our second approach in an attempt to compare the credit risk of Canadian corporate debt to an equivalent asset in non-Canadian bond markets involves a comparison analysis of default rates across investment grade and high yield markets. Exhibit 7 shows annual default rates of Canadian, US and Global bonds going back to 1999. This graph includes both investment grade and non investment grade corporate issuers. Broadly, the longer term trends are similar across all major bond markets in terms of default experiences, but with some cyclical differences. It should be noted that default rates have a high correlation with the credit cycles, but are a lagging indicator of the actual credit environment. As can be seen in Exhibit 7, the default rates remained low in the period of strong credit environment from 2002 to 2007. Credit market conditions started to deteriorate in 2007 with the onset of the sub-prime mortgage crisis in the US, and the default rates rose sharply starting in 2008 and into 2009. For Canada, the rate of increase in defaults was actually higher than in the US and globally. Longer term historical average default rates are all quite similar with historical averages<sup>11</sup> for Canada, US and Global issuers at 1.8%, 1.9% and 1.7%, respectively.

<sup>11</sup> For Global Default Rates, Average is for 1983-2009- Moody's - Corporate Default & Recovery Rates, 1920-2009. For Canadian Default Rates, Average is 1989-2009. Moody's - Default & Recovery Rates of Canadian Corporate Issuers, 1989-2009. For US Default Rates, Average is 1981-2009. (S&P - Default, Transition & Recovery: 2009 US Corporate Default Study and Rating Transitions).

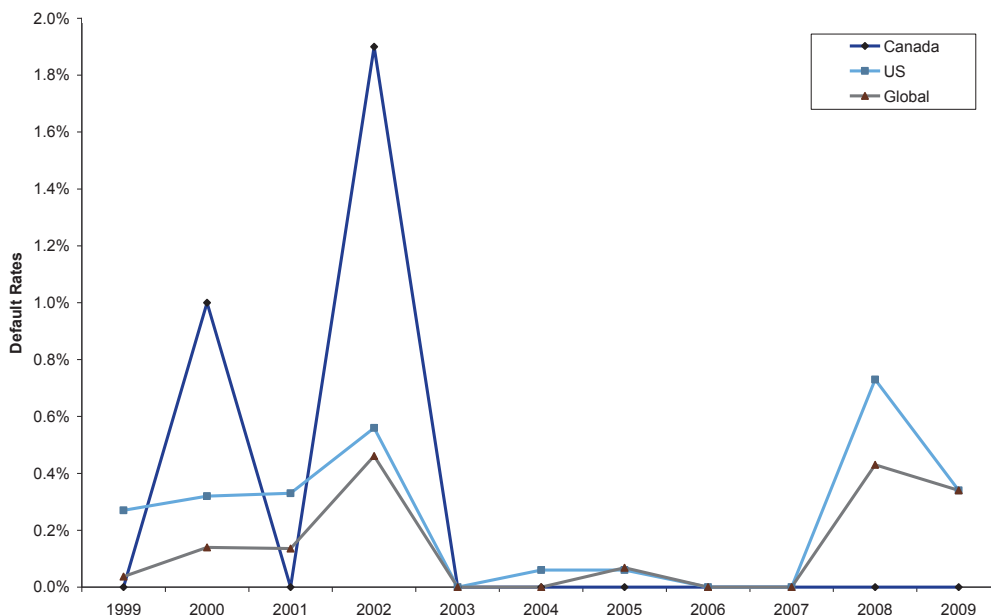
**Exhibit 7: ANNUAL DEFAULT RATES FOR ALL CORPORATE ISSUERS  
Canada Vs US Vs Global**



Source: Moody's and Standard & Poor's. Note: For Canadian Default rates, Average is 1989-2009. For US Default rates, Average is 1981-2009. Global Default Rates, Average Cumulative is 1983-2009.

In Exhibit 8, we show the investment grade only default rates. Longer term historical average default rates for investment grade corporate issuers are very low and quite similar across Canada, US and global at 0.1%, 0.2% and 0.1%, respectively. The Canadian market experienced cyclical spikes in 2000 and 2002 when AT&T Canada, Teleglobe and Laidlaw defaulted. The structural dynamics of the Canadian corporate debt market relative to the larger non-Canadian markets are such that even a few defaults can materially impact the aggregate default rates. Broadly, the Canadian investment grade default experience has been marginally better with no defaults since 2003 compared to the US and global bonds. For example, in 2009 the default rate in Canada was 0% compared to the US at 0.3% and global at 0.3%.

**Exhibit 8: ANNUAL DEFAULT RATES FOR INVESTMENT GRADE CORPORATE ISSUERS  
Canada Vs. US Vs. Global**

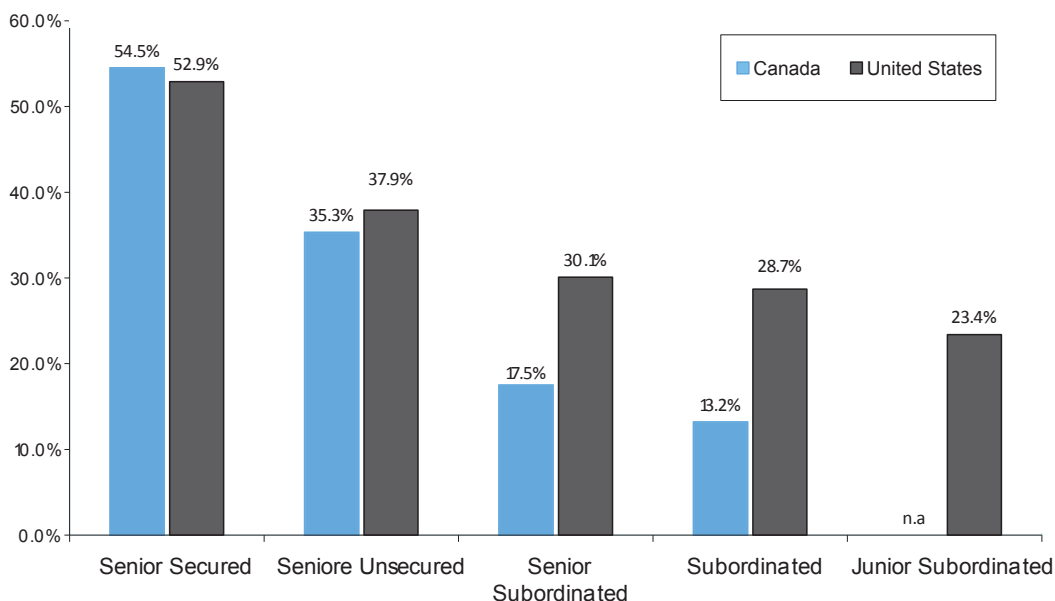


Source: Moody's and Standard & Poor's. Note: For Canadian Default rates, Average is 1989-2009. For US Default rates, Average is 1981-2009. Global Default Rates, Average Cumulative is 1983-2009.

However, default rate trends in the speculative grade segment are different from investment grade segment i.e. Canada does not have a better experience. Longer term historical average default rates are quite similar across Canada, US and global at 4.7%, 4.7% and 4.8%, respectively. Globally, default rates reached historically high levels in 2008-2009 as result of the financial crisis. Generally, Canadian high yield credits offer no credit risk advantage over their global counterparts, as measured by probability of defaults and default rates.

In comparing the credit risk of Canadian issuers to their global counterparts, it is equally important to also look at the recovery rates given a default. This pertains to the worst case exit strategy options available to a bond investor. It is a general belief among bond market participants that the Canadian bond structures are weaker than what is generally practiced in the US and even in global bond markets. While this is somewhat of a subjective statement and beyond the scope of this paper, we look at the historical recovery rates of the Canadian versus US market to see where bond investors have had more success in recovering their monies.

**Exhibit 9: AVERAGE BOND RECOVERY RATES, 1989-2009  
Canada Vs. US**



Source: Moody's

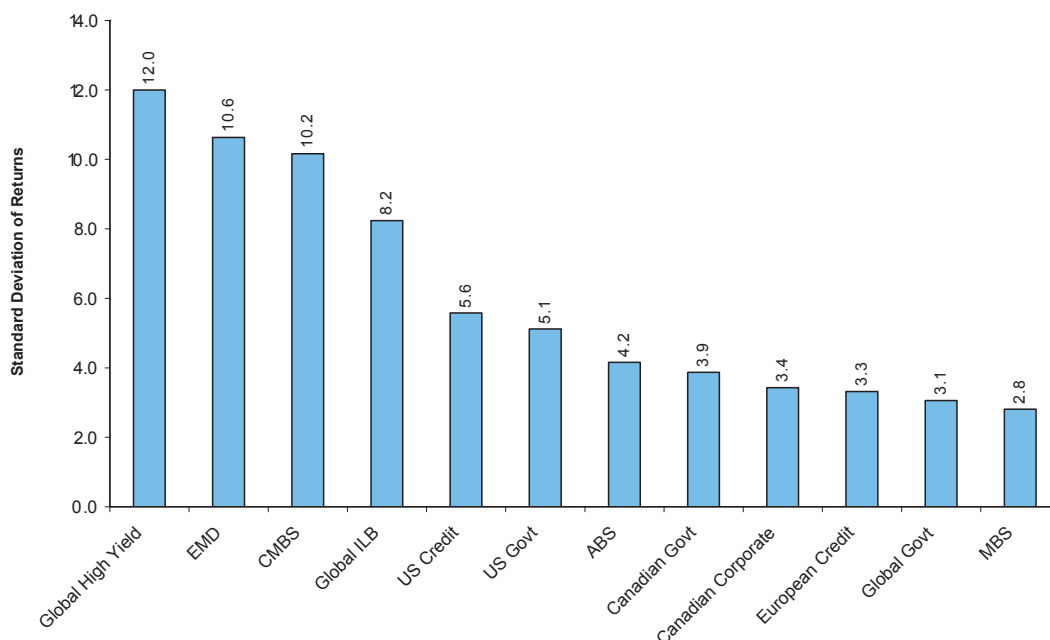
We draw two conclusions from looking at the actual recovery rates between the two countries in Exhibit 9. First, there is a high correlation between recovery rates and a bond holders priority of claims as determined by the structure of the bond i.e. a higher position in the capital structure<sup>12</sup> will result in a higher recovery rate. Secondly, the Canadian recovery rates are relatively lower than the US, especially as we go down the capital structure. For this reason, we find some highly skilled Canadian managers preferring US dollar offering over Canadian dollar offering of Canadian domiciled issuers.

<sup>12</sup> Senior Secured debt holders have the senior most position within a firm's capital structure and are paid first in the event of a default. Senior Unsecured debt holders are next in line behind Senior Secured lenders and have priority ahead of all other unsecured or subordinated debt for payment in the event of default. Senior Subordinated and Subordinated debt holders are behind the Senior Unsecured debt holders in terms of the priority of claim. Subordinated debt is repaid only after senior Subordinated debt has been repaid. It is higher risk than senior debt. Junior subordinated debt is just one notch above the Preferred equity shareholders and are subordinated in their rights to receive principal and interest payments from the borrower to the rights of the holders of senior debt and senior subordinated debt.

## 2. What about the Risk Adjusted Returns of the Canadian Bond Market?

Volatility of returns is perhaps another significant reason why Canadian fixed income investors have historically been risk averse towards non-index and global bond sectors. As seen in Exhibit 10, the Canadian Government and Canadian Corporate sectors enjoy one of the lowest standard deviations among the global bond market sectors. However, there are a few global bond sectors with even lower standard deviations i.e. European Credit, Global Government and MBS.

**Exhibit 10: 10-YEAR STANDARD DEVIATION OF RETURNS**

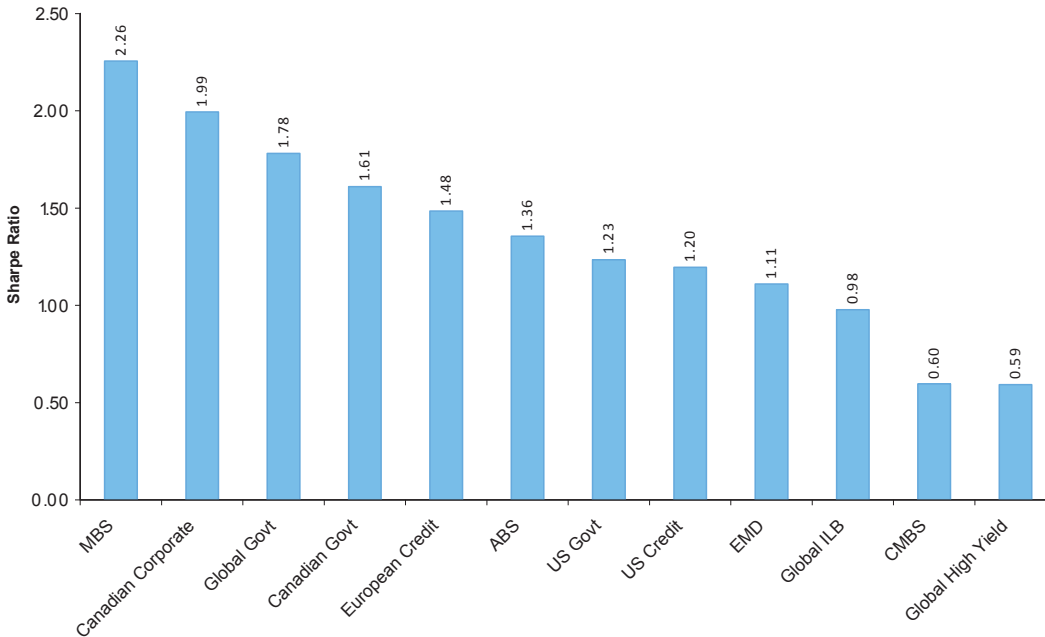


Source<sup>13</sup>: PC Bond, Barclays Capital, BofA-Merrill Lynch and JP Morgan. All data as of September 30, 2010.  
Note: 10-Year annualized standard deviations.

<sup>13</sup> 1) **CMBS** represented by Barclays Capital CMBS Bond Index (USD); 2) **EMD** represented by Barclays Capital Emerging Markets Index (USD); 3) **US Credit** represented by Barclays Capital US Credit Index (USD); 4) **Canadian Corporates** represented by DEX All Corporate Bond Index (CAD); 5) **Canadian Government** represented by DEX All Government Bond Index (CAD); 6) **US Government** represented by JP Morgan United States Government Bond Index (USD); 7) **Global Government** represented by JP Morgan Global Government Bond Index (World Currency); 8) **ABS** represented by Barclays Capital Asset-Backed Securities Index (USD); 9) **MBS** represented by Barclays Capital MBS Index (USD); 10) **Global ILB** represented by Barclays Capital Global Inflation-Linked Index (USD); 11) Euro Aggregate Government represented by Barclays Capital Euro Aggregate Government Index (EUR); and 12) **Global High Yield** represented by Merrill Lynch Global High Yield Index (USD). Note: Returns are reported in USD, CAD EUR and local currencies to neutralize the impact of currency risk (local currency returns serve as a proxy for hedged currency returns).

Sophisticated institutional investors also use the Sharpe Ratio<sup>14</sup> to compare Canadian bond sectors with global bond sectors to make their investment decisions. Sharp Ratio is an indicator of a portfolio’s risk-adjusted return. As can be seen in Exhibit 11, the two Canadian bond sectors i.e. Corporate and Government have one of the highest Sharpe Ratios.

**Exhibit 11:** **SHARPE RATIO**  
**Canada Vs. Global Bond Sectors**




Source<sup>15</sup>: PC Bond, Barclays Capital, BofA-Merrill Lynch and JP Morgan. All data as of September 30, 2010. Note: Calculations use 15-Year Annualized Returns except Global High Yield is based on 12 Year Annualized Return; CMBS is based on 13-Year Annualized Return; European Credit is based on 11-Year Annualized Return, and Global ILB is based on 11-Year Annualized Return.

Looking at the results of these measures of risk (standard deviation) and risk-adjusted return (Sharpe Ratio), it is easy to see why Canadian investors will prefer to stay fully invested in the index sectors. However, we caution investors who look at these measures standalone. Limitations of these measures are well known within the investment community and we point out two key factors. First, standard deviation is a measure of volatility and not risk. For example, standard deviations will be low for sectors that have low relative returns over a period of time but with a steady return pattern. In fact, sectors with negative returns but a steady return pattern will also have low standard deviation and thus will be considered low risk. On the contrary, sectors that have an increasing return pattern over a period of time will have a high standard deviation and thus will be considered more risky. Canadian debt sectors without any doubt have steady return patterns, but there is an opportunity cost for investors who stay with index only sectors i.e. not seeking to maximize risk-adjusted return potential of their portfolios.

<sup>14</sup> A ratio developed by Nobel laureate William F. Sharpe that is used to measure risk-adjusted performance. The Sharpe ratio is calculated by subtracting the risk-free rate, such as that of the 3 Month U.S. Treasury Bill, from the Expected rate of return of a portfolio or Index and then dividing the result by the standard deviation of the portfolio or index returns.

<sup>15</sup> Our methodology for calculating the Sharpe Ratio involves using the longer term annualized returns for each market sector as a proxy for expected returns. We used 10 year standard deviation. For the risk free rate we used the US Treasury 3 Month T-Bill rate. For the Canadian sectors, we used the Canadian 3 Month T-bill rate. For the European Credit sector, we used the UK 3 Month T-Bill rate. 1) **CMBS** represented by Barclays Capital CMBS Bond Index reported in USD; 2) **EMD** represented by Barclays Capital Emerging Markets Index reported in USD ; 3) **Global High Yield** represented by Merrill Lynch Global High Yield Index reported in USD; 4) **US Credit** represented by Barclays Capital US Credit reported in USD; 5) **Canadian Corporates** represented by DEX Corporate Bond Index reported in CAD; 6) **Canadian Government** represented by DEX Government Bond Index reported in CAD; 7) **US Government** represented by JP Morgan United States Government Bond reported in USD; 8) **Global Government** represented by JP Morgan Global Government Bond reported in local currencies; 9) **ABS** represented by Barclays Capital Asset-Backed Securities Index reported in USD; 10) **MBS** represented by Barclays Capital MBS Index reported in USD; 11) **Global ILB** represented by Merrill Lynch Global Inflation-Linked reported in USD and 12) **European Credit** represented by Barclays Capital Euro- Aggregate Credit Index reported in EUR.



Similarly, the Sharpe Ratio will be lower for sectors even if the volatility is on the upside i.e. it penalizes for both upside and downside volatility. Hence, Sharpe Ratio is more meaningful for comparing sectors with similar return distribution patterns, which is not what we get when comparing Canadian sectors with global bond sectors. As can be seen in Exhibit 16, the magnitude of returns on both ends is much greater in global bond sectors compared to Canadian index sectors.

Again, we point out that even in light of this data, Core Plus managers have posted better performance relative to Core managers<sup>16</sup>. We believe this is because Core Plus portfolios have a significantly broader opportunity set and strategies that work across most market environments. A broader opportunity set allows Core Plus managers to implement multiple strategies within the portfolio that have low correlations with each other. It is therefore our view that these measures will be even less relevant in this post crisis era (also see discussion on Secular Changes Favor Global Fixed Income Investing).

### **Core vs. Core Plus: An Empirical Analysis of Pre and Post Crisis Performance Data**

Thus far, we have supported our investment view with two key factors; first, global investing offsets the structural inefficiencies of the Canadian debt markets and second, traditional measures of risk and risk adjusted returns have numerous limitations and will become less relevant. In this section, we attempt to test the success of the strategies underlying the framework of a Core Plus style product by performing an empirical analysis<sup>17</sup> of the pre and post crisis performance data. We go back just over five years<sup>18</sup> for a total of twenty one quarters in our comparison of these two variant styles.

We start by first looking at the active management environment over the last five years. Exhibit 12 plots the percentage of Core and Core Plus managers in our Universes who were able to outperform the market benchmark i.e. the DEX Universe Bond Index, in a given quarter. We draw a few observations from this chart. First, the active management environment has been significantly more favorable to Core Plus managers, in fact by more than two times i.e. in fifteen quarters a higher percentage of Core Plus managers outperformed the index compared to only six quarters for Core managers. Second, quarters when the active management environment was more favorable to Core type managers were generally quarters when either market volatility was high or there was a significant negative credit event. For example, looking at the quarters in the midst of the financial crisis (i.e. 2007 Q4 – 2008 Q4), Core Plus managers on average underperformed Core managers. However, as we look at this same period the active management environment was challenging for all managers across both styles. Third, Core Plus managers on average do better than Core managers during periods of economic stability and certainty, or when the credit cycles are turning positive after downturns. We see this trend in the periods prior to 2007 (i.e. expansionary credit phase) and in 2009 and in 2010 (i.e. recovering credit phase).

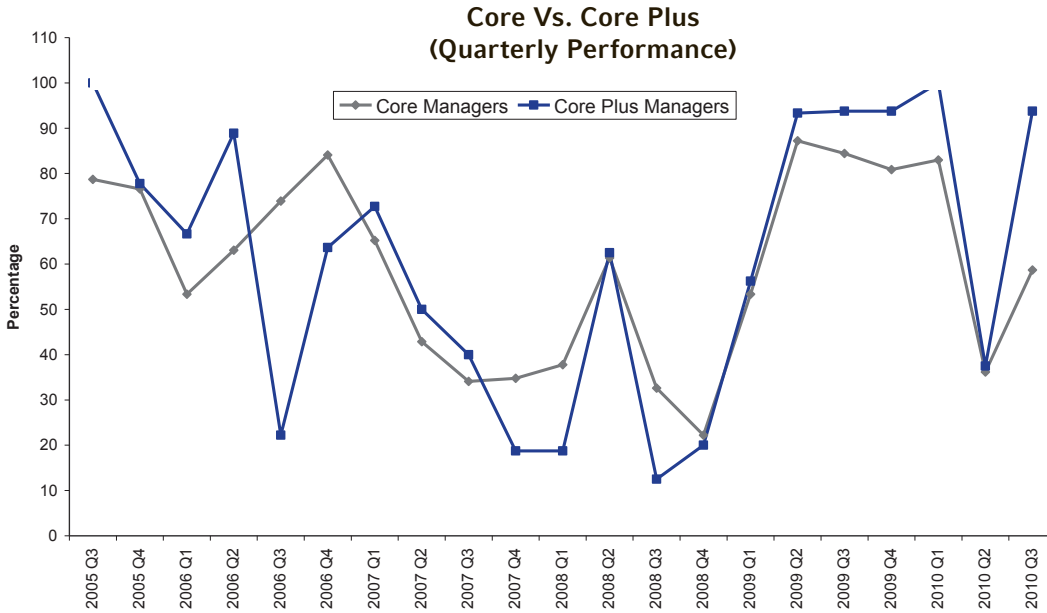
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<sup>16</sup> See Empirical Analysis in the next section.

<sup>17</sup> This empirical analysis is based on the quarterly data supplied by the managers, which is used to build a Core and a Core Plus. Russell's Core Fixed Income consists of forty seven products, whereas the Core Plus consists of sixteen products.

<sup>18</sup> Our data sample in terms of the number of Core Plus products was not large enough prior to this period to draw meaningful comparisons.

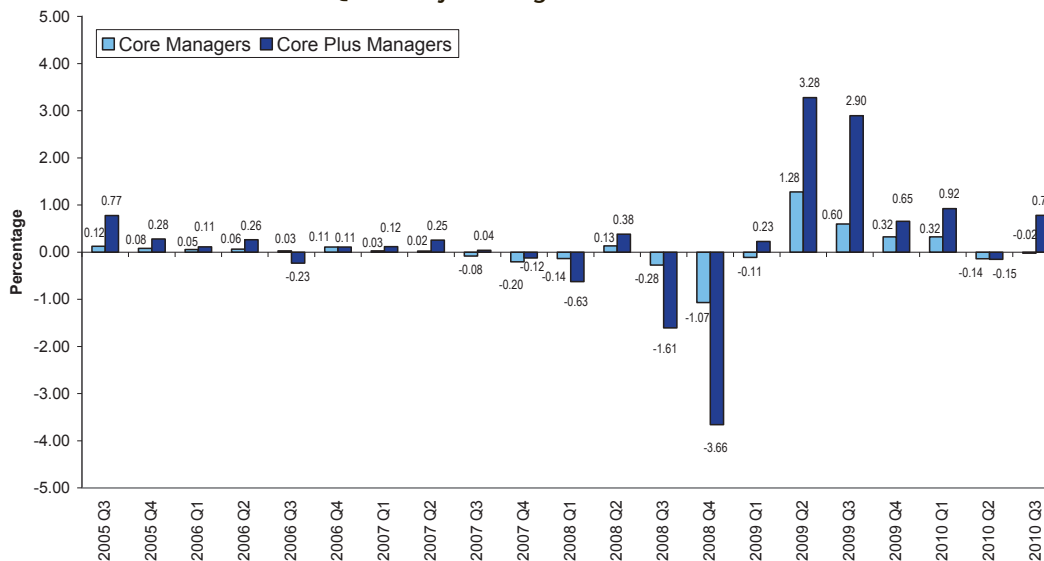
**Exhibit 12: ACTIVE MANAGEMENT ENVIRONMENT  
CANADIAN FIXED INCOME MANAGERS WHO OUTPERFORMED THE  
DEX UNIVERSE BOND INDEX**



Source: Russell Investments Canada. Note: Outperformance measured against the DEX Universe Bond Index.

After observing that Core Plus managers have had greater success in outperforming the index, we now look at the magnitude of their success (i.e. average excess return over the index) on a quarterly basis in Exhibit 13. This chart shows both the frequency and magnitude of success the respective styled managers had relative to the index in a given quarter. Since 2005 Q3 there have been significantly more quarters of Core Plus managers posting higher average returns relative to both the Core style managers and the index. In fact, Core Plus managers outperformed Core managers in fifteen quarters compared to only five quarters when Core managers outperformed Core Plus managers. Therefore, Core Plus managers have better track record in terms of both frequency and magnitude of outperformance.

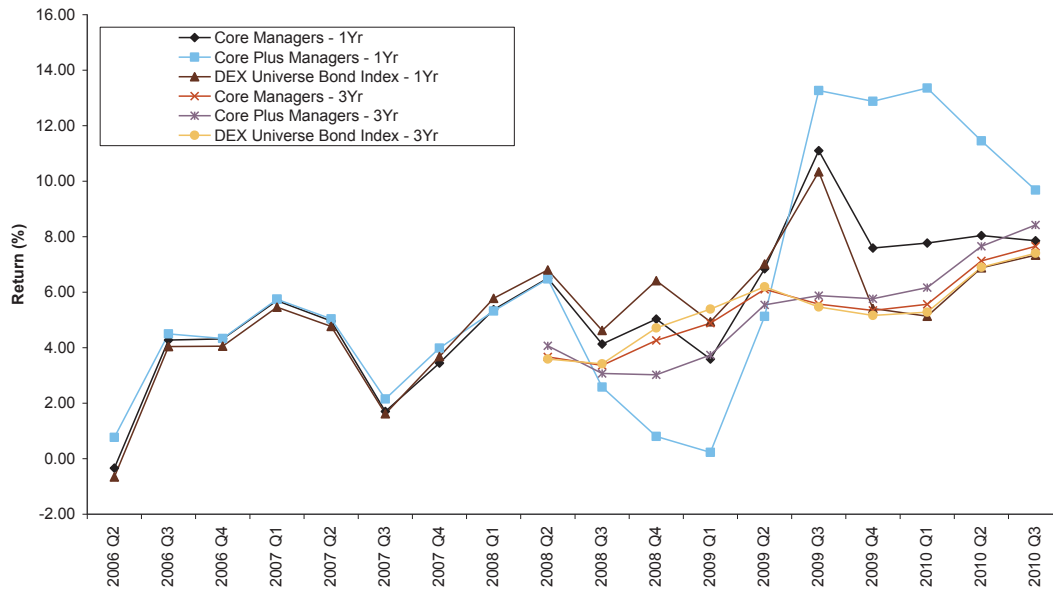
**Exhibit 13: AVERAGE EXCESS RETURNS OVER DEX UNIVERSE BOND INDEX  
Core Vs. Core Plus  
(Quarterly Average Returns)**



Source: Russell Investments Canada.

We see similar performance trends as discussed above while looking at the annualized 1 year and 3 year returns for the Core and Core Plus managers averages in Exhibit 14. Core Plus managers on the average outperformed both the Core managers and the index on both 1 year and 3 year basis as of September 30, 2010. It is important to note that on the average Core Plus managers rebounded significantly in 2009 to more than compensate for their underperformance in 2008.

**Exhibit 14: ANNUALIZED 1-YEAR AND 3 YEAR RETURNS  
DEX Universe Bond Index Vs. Core Vs. Core Plus**



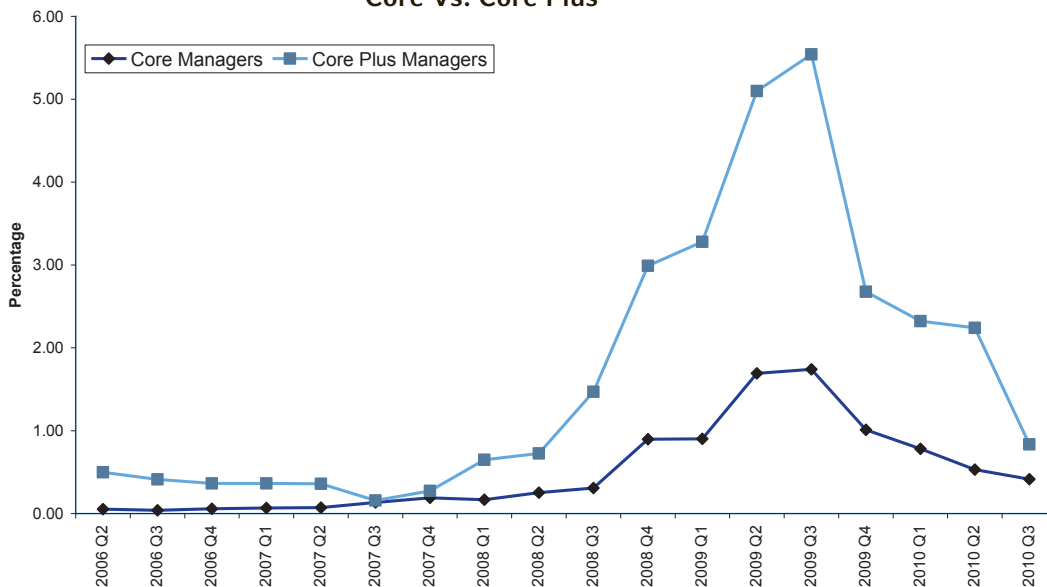
Source: Russell Investments Canada. Note: All periods as of September 30, 2010

In Exhibit 15, we have graphed the average Tracking Errors<sup>19</sup> (TE) of the Core and Core Plus managers. Not surprisingly, the TE of the Core managers is relatively lower due to its greater orientation towards the index. We observe that the TE of both the styles were more closely aligned during the pre-crisis period and started increasing in 2008 Q3 as a result of the deteriorating credit market environment globally. The magnitude of increase in TE has been more significant for the Core Plus managers since after the crisis. This is not necessarily a negative from a risk perspective as it primarily means that Core Plus managers are generally finding increased investment opportunities in non-index assets during periods of high volatility. Importantly, TE for Core Plus managers has dropped significantly in 2010 and since the worst of the market volatility. Interestingly, with this drop in TE Core Plus managers have continued to outperform Core managers. In fact, Core Plus managers also outperformed during the pre-crisis periods and when TE was more closely aligned.

<sup>19</sup> Tracking error (also called active risk) is a measure of the deviation from the index; an index fund would have a tracking error close to zero, while an actively managed portfolio would normally have a higher tracking error. Tracking errors are reported as a "standard deviation percentage" difference.



**Exhibit 15: ANNUALIZED TRACKING ERROR (TE)  
Core Vs. Core Plus**



Source: Russell Investments Canada. Note: 1 year annualized standard deviations.

Another measure of determining risk-taking on an absolute basis is to look at the standard deviation of the two styles. Standard deviation is a measure of the portfolio’s variability of returns over a period from its longer term average. We observe that the annualized standard deviations for the two styles for this covered period are not substantially different i.e. 3.37 for the Core and 3.93 for the Core Plus. For a broader perspective, the S&P TSX standard deviation is 15.87<sup>20</sup>. It should also be noted that the standard value added target for a Core manager is around 50 bps annually compared to 100 bps for a Core Plus style manager. Therefore, the significantly higher value added target comes at only incrementally higher volatility.

We conclude from the above empirical analysis that managers who have taken non-index exposure during the last five years have been rewarded well, and in most cases more generously than the Core managers. Second, assessment of risk taking in non-index sectors is a relative term i.e. if measured against the DEX Universe Bond Index, the TE will be higher due to non-index exposure. The other side of running a high TE is the higher return potential. Also, the volatility of returns for Core Plus managers on the average has not been substantially higher than the Core style managers. We believe that for investors who are less concerned about index alignment and more concerned about risk adjusted total return performance, including non-index assets on a strategic basis can provide significant benefits.

## Non-Indexed (Global) Investment Benefits and Opportunities for Canadian Fixed Income Investors

Given that the Canadian debt market accounts for only 3% (see Exhibit 1) of the global bond markets, global investing expands the opportunity set with different return drivers and market dynamics. In short, key benefits include incremental yield, higher returns and better diversification. We also believe that secular changes in the global economic landscape in this post crisis world has made global fixed income investing even more compelling for Canadian fixed income investors. In this section we review each of these key benefits.

<sup>20</sup> Based on historical returns between February 1962 and September 2010.

## 1. Maximizing the Total Return Potential


Exhibit 16 makes a case against fixed income investors who maintain a home country bias in their investment approaches. In this chart we have gone back ten years and shown the annual total returns of some of the major global bond indices including the DEX Government Bond Index and the DEX Corporate Bond Index. There are a number of interesting observations that can be drawn from this chart. Most importantly, during this ten year period no single bond market or sector has consistently been the top performer on the global platform. Global High Yield and Global ILB have been the best performers more than any other market i.e. three years in this ten year period, however, these sectors have also been the worst performers in a few years. It is also important to note that worst performing sectors have rebounded very strongly the following year in most cases. While Canadian bond sectors have never been the best performing market, they have also never been the worst performers.

A second observation from this chart is the magnitude of returns. By staying only in Canadian sectors, investors limit the substantial total return opportunities available in global bonds. For example, the highest return investors have earned from a Canadian sector is 16.3% from the Canadian Corporates in 2009. Other than 2009, Canadian bond market returns have been in the single digits. In comparison, historical returns have been much higher for global bond markets and sectors. This chart also supports our empirical analysis that Canadian fixed income managers who took exposures in global bond markets and sectors have done better on the average.

**Exhibit 16: VALUE OF FIXED INCOME DIVERSIFICATION**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Best Performing	CMBS 14.0	US CREDIT 14.0	GLOBAL ILB 20.1	GLOBAL HIGH YIELD 30.7	GLOBAL ILB 14.6	CMBS 12.3	GLOBAL HIGH YIELD 13.5	GLOBAL ILB 11.7	US GOVT 11.7	GLOBAL HIGH YIELD 62.0	CMBS 19.5
	US GOVT 13.9	ABS 9.8	CMBS 15.4	EMD 26.9	GLOBAL HIGH YIELD 12.4	CANADIAN CORPORATES 12.4	EMD 10.0	US GOVT 9.2	GLOBAL GOVT 9.2	EMD 34.2	EMD 14.2
	EMD 13.7	CMBS 9.5	EMD 12.3	GLOBAL ILB 16.2	EMD 11.9	ABS 6.0	GLOBAL ILB 7.3	MBS 6.9	CANADIAN GOVT 9.0	CMBS 28.1	GLOBAL HIGH YIELD 11.5
	MBS 11.2	CANADIAN CORPORATES 9.3	US GOVT 12.2	CANADIAN CORPORATES 8.5	EUROPEAN CREDIT 7.5	EUROPEAN CREDIT 4.1	MBS 5.2	EMD 5.2	MBS 8.3	ABS 24.7	US CREDIT 10.5
	ABS 10.8	MBS 8.2	US CREDIT 10.5	US CREDIT 7.7	CANADIAN CORPORATES 7.3	GLOBAL GOVT 3.7	CMBS 4.9	US CREDIT 5.1	CANADIAN CORPORATES 0.2	CANADIAN CORPORATES 16.3	US GOVT 9.0
	CANADIAN GOVT 10.6	CANADIAN GOVT 7.7	CANADIAN GOVT 8.8	EUROPEAN CREDIT 6.4	CANADIAN GOVT 7.1	US GOVT 2.9	ABS 4.7	CMBS 4.6	EUROPEAN CREDIT -2.5	US CREDIT 16.0	CANADIAN CORPORATES 7.8
	US CREDIT 9.4	US GOVT 6.6	EUROPEAN CREDIT 8.8	CANADIAN GOVT 6.0	US CREDIT 5.2	MBS 2.4	CANADIAN CORPORATES 4.4	CANADIAN GOVT 4.4	US CREDIT -3.1	EUROPEAN CREDIT 14.4	ABS 7.4
	CANADIAN CORPORATES 9.1	EUROPEAN CREDIT 6.5	MBS 8.7	CMBS 4.7	GLOBAL GOVT 4.9	EMD 2.1	US CREDIT 4.3	GLOBAL GOVT 4.0	GLOBAL ILB -7.7	GLOBAL ILB -13.6	CANADIAN GOVT 7.4
	GLOBAL GOVT 8.3	GLOBAL GOVT 5.2	CANADIAN CORPORATES 8.6	ABS 4.0	MBS 4.7	US CREDIT 2.0	CANADIAN GOVT 3.9	GLOBAL HIGH YIELD 3.0	ABS -12.7	MBS 5.9	GLOBAL GOVT 6.6
	EUROPEAN CREDIT 6.3	GLOBAL HIGH YIELD 3.1	GLOBAL GOVT 8.5	MBS 3.1	CMBS 4.3	CANADIAN GOVT 1.8	US GOVT 3.1	ABS 2.2	EMD -14.8	CANADIAN GOVT 1.6	EUROPEAN CREDIT 6.6
	GLOBAL ILB 3.9	GLOBAL ILB 1.9	ABS 8.5	US GOVT 2.4	US GOVT 3.8	GLOBAL HIGH YIELD 1.5	GLOBAL GOVT 0.8	CANADIAN CORPORATES 1.8	CMBS -22.7	GLOBAL GOVT 0.7	MBS 5.1
Weakest Performing	GLOBAL HIGH YIELD -5.8	EMD 1.4	GLOBAL HIGH YIELD -1.1	GLOBAL GOVT 2.2	ABS 3.0	GLOBAL ILB -1.3	EUROPEAN CREDIT 0.5	EUROPEAN CREDIT 0.4	GLOBAL HIGH YIELD -27.9	US GOVT -3.8	GLOBAL ILB 4.2

Source<sup>21</sup>: Russell Investments, BNY Mellon Analytics, Barclays Capital, DEX, JP Morgan and BofA-Merrill Lynch. Note: Returns are reported in USD, CAD, EUR and World Currency as shown below to neutralize the impact of currency risk (local currency returns serve as a proxy for hedged currency returns).



Finally, it should be noted that even during the peak of the crisis when investors were broadly risk averse certain fixed income sectors posted positive returns and posted significantly better performance than the Canadian bond market. For example, in 2008 US Government and Global Government markets outperformed Canadian Government market. Similar trend can be observed in an improving or stable economic environment i.e. in the post crisis period (2009 and 2010 YTD) a number of global bond sectors have outperformed the Canadian bond market sectors. This further supports the benefits of global investing and the potential of enhancing returns from a Canadian fixed income investor's perspective. However, post crisis some investors have become even more risk averse to global bond markets and are solidly comfortable with their home country bias.

## 2. Benefits from Low Correlations<sup>22</sup>

In light of the Modern Portfolio Theory (MPT)<sup>23</sup>, we ran post crisis long term return correlations of some of the key global bond markets and sectors against key Canadian fixed income sectors including Canadian Government, Canadian Corporates, Canadian High Yield, and Canadian Real Return. Not surprisingly, correlations ran high during the peak of the crisis among most global bond markets. However, there remains significant opportunities for Canadian investors to diversify their portfolios by adding sectors that still have low correlations in this post crisis era.

The correlation Matrix, as seen in Exhibit 17, shows that the two key Canadian index sectors i.e. Government and Corporates have a very high historical correlation of 0.82. For Canadian fixed income investors, optimal diversification benefits can only be achieved through the inclusion of non-indexed sectors including global bonds. For example, the Canadian Government sector has the lowest correlation to the Pan-European High Yield (-0.11), US High Yield (0.02), Emerging Markets (0.29) ABS (0.30) and CMBS (0.32). For Canadian corporate bonds investors, it is important to know that this sector has low correlations with the Pan-European High Yield (0.28), US High Yield (0.34), Canadian RRB (0.39), and CMBS (0.40). Forward looking, it is realistic to expect that correlations globally will increase from their historic norms in times of crisis as we saw during this past crisis.

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<sup>21</sup> **CMBS** represented by Barclays Capital CMBS Bond Index reported in USD; **EMD** represented by Barclays Capital Emerging Markets Index reported in USD; **Global High Yield** represented by Merrill Lynch Global High Yield Index reported in USD; **US Credit** represented by Barclays Capital US Credit reported in USD; **Canadian Corporates** represented by DEX Corporate Bond Index reported in CAD; **Canadian Government** represented by DEX Government Bond Index reported in CAD; **US Government** represented by JP Morgan United States Government Bond reported in USD; **Global Government** represented by JP Morgan **Global Government** Bond reported in local currencies; **ABS** represented by Barclays Capital Asset-Backed Securities Index reported in USD; **MBS** represented by Barclays Capital MBS Index reported in USD; **Global ILB** represented by Merrill Lynch Global Inflation-Linked reported in USD and **European Credit** represented by Barclays Capital Euro- Aggregate Credit Index reported in EUR.

<sup>22</sup> Low correlation means that different asset types have not performed in the same way: When returns on some asset types were declining, returns on others were declining less, or gaining. For investors, this diversification has benefits: If poor performance in one investment can be offset by better (or even good) performance in another, extreme losses in an overall portfolio will be rarer than otherwise, and the capital will grow more in the long run. A correlation of 1.0 means that two assets move in perfect tandem with each other. A correlation of zero means that the relationship between the two assets is totally random. A negative correlation means that they move in opposite directions.

<sup>23</sup> Modern Portfolio Theory (MPT) is widely used in the investment industry and this approach attempts to maximize the portfolio expected return for a given amount of portfolio risk. It dictates that portfolio diversification lowers the overall risk of the portfolio. Generally, this is achieved by including assets that have low correlations to the portfolio's existing assets.

## Exhibit 17: Correlation Matrix: Canadian Bond Market Sectors Against Global Bond Market Sectors

	Canadian Govt	United States Bond	Global Govt Bond	Euro-Aggregate Govt	Canadian Corporates	U.S Credit	Euro-Aggregate Credit	Asset backed Securities	CMBS Bond	Mortgage Backed Securities	Canadian High Yield Bond	Pan-European High Yield	U.S Corporate High Yield	Emerging Markets	Canadian Real Return Bond	Global Govts Inflation Linked
Canadian Govt	1.00															
United States Govt Bond	0.83	1.00														
Global Govt Bond	0.84	0.92	1.00													
Euro-Aggregate Govt	0.70	0.75	0.90	1.00												
Canadian Corporates	0.82	0.58	0.62	0.58	1.00											
U.S Credit	0.66	0.64	0.61	0.52	0.74	1.00										
Euro-Aggregate Credit	0.55	0.48	0.61	0.72	0.75	0.81	1.00									
Asset-Backed Securities	0.30	0.28	0.22	0.21	0.57	0.63	0.58	1.00								
CMBS Bond	0.32	0.23	0.21	0.11	0.40	0.55	0.40	0.46	1.00							
Mortgage Backed Securities	0.70	0.83	0.76	0.65	0.58	0.66	0.51	0.45	0.22	1.00						
Canadian High Yield Bond	0.40	0.28	0.32	0.25	0.49	0.48	0.42	0.02	0.38	0.24	1.00					
Pan-European High Yield	-0.11	-0.29	-0.24	-0.14	0.28	0.35	0.39	0.47	0.33	-0.09	0.18	1.00				
U.S Corporate High Yield	0.02	-0.18	-0.16	-0.14	0.34	0.51	0.40	0.46	0.58	-0.01	0.31	0.85	1.00			
Emerging Markets	0.29	0.17	0.15	0.10	0.46	0.64	0.46	0.47	0.44	0.34	0.34	0.55	0.69	1.00		
Canadian Real Return Bond	0.43	0.34	0.32	0.21	0.39	0.49	0.36	0.32	0.54	0.22	0.24	0.17	0.30	0.41	1.00	
Global Govts Inflation Linked	0.47	0.50	0.44	0.32	0.50	0.68	0.52	0.54	0.58	0.46	0.35	0.26	0.40	0.52	0.63	1.00

Source<sup>24</sup>: Russell Investments, BNY Mellon Analytics, Barclays Capital, DEX, and JPM. Note: Correlations are based on returns from 1/99 to 9/10. Returns are reported in USD, EUR or World Currency to neutralize the impact of currency risk (local currency returns serve as a proxy for hedged currency returns).

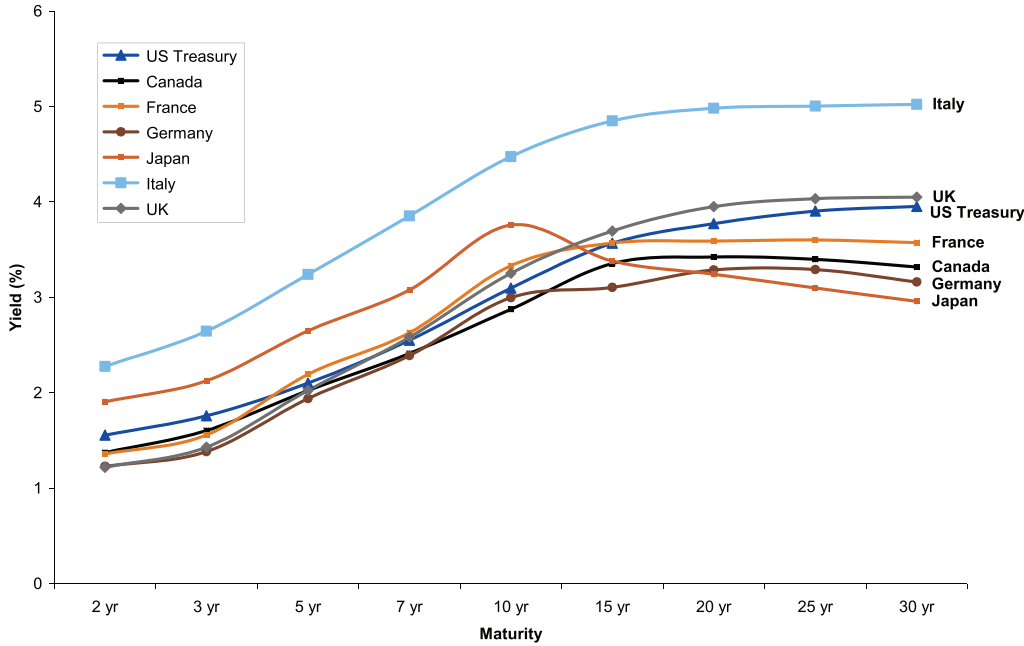
### 3. Incremental Yield

To no surprise, the average yield of a Core Plus portfolio is higher than that of a Core portfolio. This is because yields in some of the global bond markets and sectors are significantly higher than what investors receive from staying in the Canadian sectors. At any given point in the economic cycle, countries will have different interest rates and even divergent monetary policies. Similarly, the slopes of the yield curve can also be different among countries. In Exhibit 18, we show the Government yield curves of the G7 countries.

<sup>24</sup> 1) **CMBS** represented by Barclays Capital CMBS Bond Index (USD); 2) **EMD** represented by Barclays Capital Emerging Markets Index (USD); 3) **US Credit** represented by Barclays Capital US Credit Index (USD); 4) **Canadian Corporates** represented by DEX All Corporate Bond Index (CAD); 5) **Canadian Government** represented by DEX All Government Bond Index (CAD); 6) **Canadian High Yield** represented by DEX High Yield Bond Index (CAD); 7) **Canadian Real Return** represented by DEX Real Return Bond Index (CAD); 8) **US Government** represented by JP Morgan United States Government Bond Index (USD); 9) **Global Government** represented by JP Morgan Global Government Bond Index (local currencies); 10) **ABS** represented by Barclays Capital Asset-Backed Securities Index (USD); 11) **MBS** represented by Barclays Capital MBS Index (USD); 12) **Global ILB** represented by Barclays Capital Global Inflation-Linked Index (USD); 13) **Euro Aggregate Government** represented by Barclays Capital Euro Aggregate Government Index (EUR); 14) **European Credit** represented by Barclays Capital Euro-Aggregate Credit Index (EUR); 15) **Pan European High Yield** represented by Barclays Pan-European High Yield Index (EUR); and 16) **US Corporate High Yield** represented by Barclays Capital US Corporate High Yield Index (USD).

Exhibit 18:

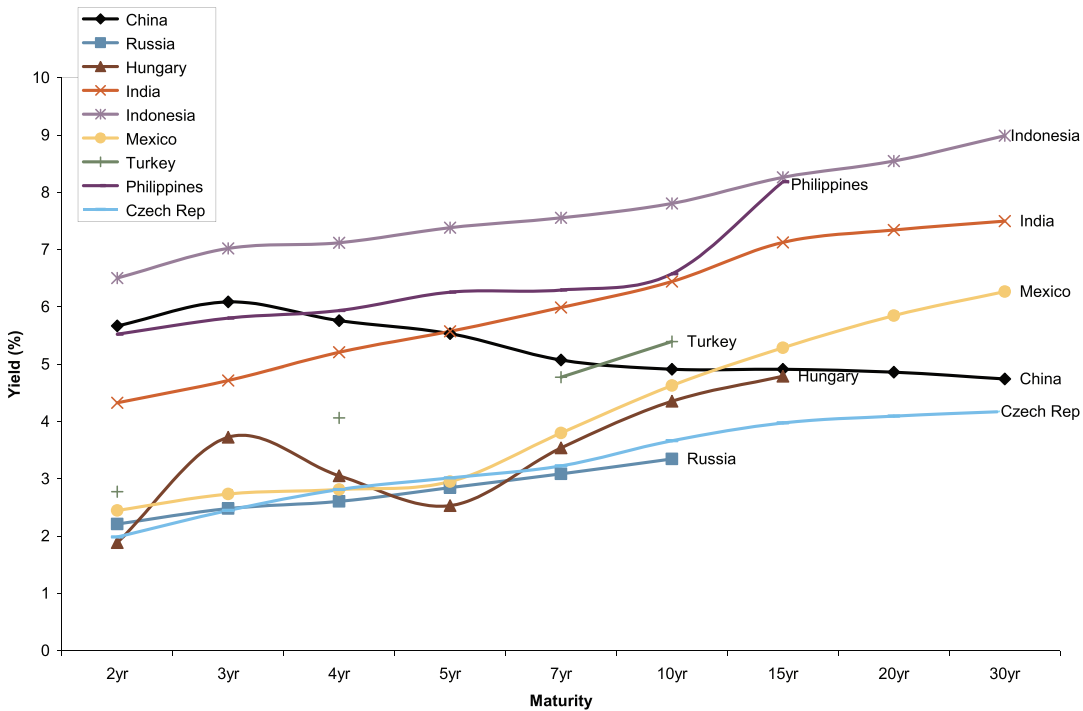
G7 YIELD CURVES



Source: Bloomberg. All yields as of September 30, 2010

Emerging Markets bonds tend to offer higher yields than the developed markets. Below are the Government yield curves for a number of Emerging Markets (EM) countries to illustrate the point of having divergent monetary policies and how they create the opportunities for yield enhancement. It is also worth noting the different shaped yield curve in these countries.

Exhibit 19: EMERGING MARKETS GOVERNMENT YIELD CURVES



Source: Bloomberg. All yields as of September 30, 2010



## 4. Secular Changes favor Global Fixed Income Investing

While empirical analysis based on historical performance supports our investment thesis, we also believe that the secular shifts in the global bond markets favor non-domestic assets. One of the secular changes in the aftermath of the crisis was a shift in the investor's demand curve towards less risk. As such, fixed income has gained significant popularity even among the non-traditional investors. Some fear that this has artificially inflated the asset prices in some fixed income sectors. Regardless, demographic shifts have also created a need for stable income.

For total return investors, fixed income offers both stable income and an opportunity for capital gains. Traditional fixed income investing has been more about income than capital gain. For investors with a longer-term horizon, marked to market (MTM)<sup>25</sup> volatilities should not be a deterrent from enhancing the income potential that comes from adding global bonds to a Canadian portfolio.

Another change in the global bond markets with investment implications for Canadian investors includes a shift in the credit profiles of developing countries and developed countries i.e. fundamentals of developing countries are improving, whereas the fundamentals of some developed countries have weakened. This divergence has implications on how the debt of these countries will be risk priced in the future relative to Canadian Government debt. It is also important to note while the global bond markets have become increasingly diverse, the Canadian index remains concentrated in the Canadas and the Provincials sectors. Canadian investors can reduce this concentration risk and capitalize on global income and capital gains opportunities by selectively adding bonds which are not in the index.

### Risks and Challenges of Global Bond Investing

Additional rewards associated with global bond investing come at a cost of assuming some unique risks which are not present in domestic only investing. Some of the key risks include Currency Risk, Higher Volatility, Political and Social Risk, Liquidity Risk, Operational Risks and Interest Rate Risks. While we have covered most of these earlier in this paper, in this section we will briefly cover currency risk as being a key risk inherent in global investing.

Foreign exchange rates remain one of the most challenging to forecast. Only sophisticated managers with dedicated currency specialists should be trusted with currency risks. It is important to note that currency risk can be significantly reduced through hedging (e.g. by using currency forwards). However, we recommend keeping only a small portion (around 5%) of global bonds on a currency unhedged basis to capture the upside on currencies with positive outlook.

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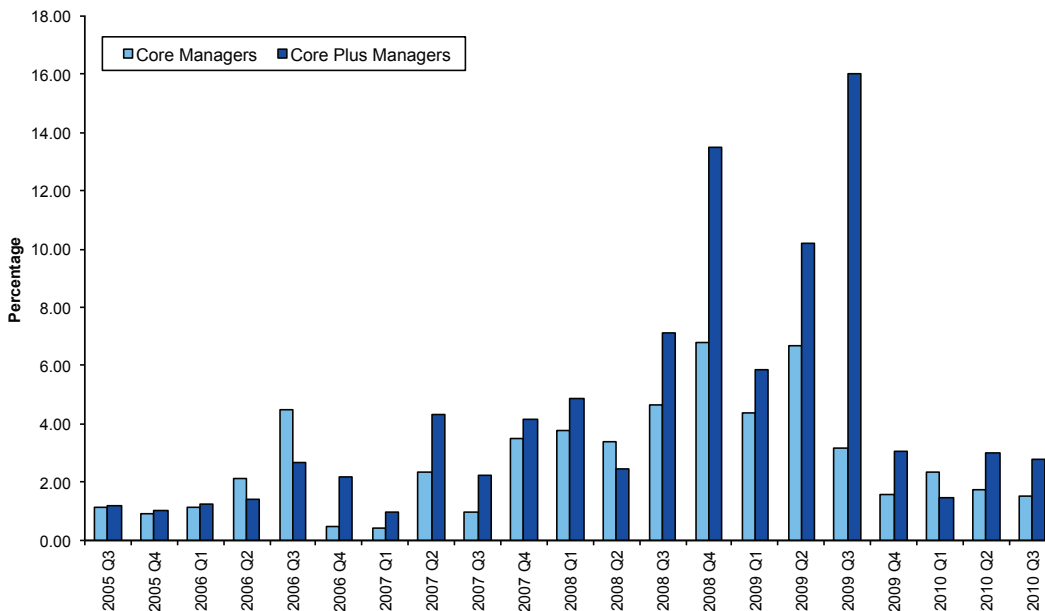
<sup>25</sup> When an asset's or the net asset value (NAV) of a mutual fund is valued based on the most current market valuation. Problems can arise when the market-based measurement does not accurately reflect the underlying asset's true value. During times of high market volatility there is often a disparity between the market value and intrinsic value of an asset. For example, if the liquidity is low or investors are fearful, the current selling price of an asset could be much lower than the actual value. This can occur when a company or an investment manager is forced to calculate the selling price of these assets during unfavorable or volatile times, such as a financial crisis.

## Selecting Your Canadian Core Plus Manager

As indicated earlier in this paper, there is no standardized framework for a Core Plus product in terms of allocations to the non-index sectors. Each product has its unique structure and risk budget. Managers generally have a higher level of comfort in terms of risk taking to areas where they have greater peer relative expertise. Some managers are more tactical than others in their allocations. Some view Canada as a beta play only with alpha opportunities coming from non-Canadian assets, while others attempt to source alpha domestically as well.

Russell's Core Plus Universe has grown from nine products five years ago to presently sixteen products. Also in the last five years, we have seen some managers close their Core Plus product. It is important to know that the dispersion of returns<sup>26</sup> in a given year is higher for Core Plus managers than for Core managers. Dispersion of returns (Exhibit 20) increases during periods of high market volatility as we witnessed during "the 2007-08" crisis. This makes manager selection even more critical and where clients can benefit greatly from Russell's extensive due diligence process<sup>27</sup>. Considering that no single manager in the Core Plus area has the expertise across all global bond markets, we recommend a multi-manager platform. A multi-manager process first identifies complementary strategies and then selects the best managers within the respective global bond areas.

**Exhibit 20: QUARTERLY DISPERSION OF RETURNS  
Core Vs. Core Plus**



Source: Russell Investments Canada.

<sup>26</sup> Dispersion of returns refers to the spread (difference) in return between the best and worst performing manager in the respective Universe in a given period. A wider return band (greater dispersion) indicates is a factor of diverse investment strategies and/or increased market volatility.

<sup>27</sup> Russell has the toughest due diligence process in the consulting industry, according to a 2009 FundFire survey of consultant relations specialists at asset management firms.



## Conclusion

Canadian fixed income investors have historically benefited from stable returns from the Canadian bond sectors, especially during times of high market volatility relative to other global bond sectors. However, secular changes facing the global bond markets in this post crisis landscape are changing the more traditional alpha opportunities available to Canadian investors. Managers who have included non-index exposure in their portfolios have on average outperformed managers who stay fully invested in index only sectors. Empirical analysis in this paper shows that that volatility of returns for Core Plus managers is not much higher than Core managers. Hence, investors can significantly enhance their upside potential with only incremental increase in volatility. Including global bonds in a domestic only portfolio also helps offset some of the structural issues facing Canadian fixed income investors. We have also shown for investors who have traditionally been concerned about the credit risk element of non-Canadian bonds that historical default and recovery rates on Canadian bonds offer no meaningful advantage over global bonds. We support allocations to global bond sectors on a strategic rather than tactical basis due to the difficulty of timing the market. Finally, we caution investors in their manager selection process as there is no standardized framework for a Core Plus type product.





## References

- Loftus, John S. (2005): "The Evolution of Core Plus: What Have we Learned?", CFA Institute Conference Proceedings
- Franklin Templeton (2009): "The Case for Global Fixed Income", Fixed Income Investment Insight, November 2009
- ING Investment Management (2010): "The Advantages of Global Investing", January 2010
- Rolley, David W. (2010): "The Global Bond Market: Opportunity or Opportunity Cost", Loomis Sayles, February 2010
- Benefits Canada (2006): "Global Fixed Income: Opportunities and Challenges", Global Fixed Income Roundtable, April 2006
- Powley, Randall: "Liquidity in the Canadian Bond Markets", University of Toronto
- Blommestein, Hans; Guzzo, Vincenzo; Holland, Allison and Mu, Yibin (2010): "Debt Markets: Policy Challenges in the Post-Crisis Landscape", OECD Journal: Financial Markets trends, Volume 2010 Issue 1
- "Canada financial bonds miss out on global rally", Bloomberg, August 2010
- "Changing the Foreign Property Rule", Addenda Capital Inc., February 2006
- "Ed Devlin Discusses PIMCO's Canadian Core Plus and Core Plus in General", PIMCO, April 2010
- Markley, Melissa (2009): "Fixed Income Investing In A Wider World", ING Investment Weekly, May 2009
- Beinner, Jonathan and Swell, Michael (2010): "Fixed Income Investing in a Low Rate Environment", Goldman Sachs Asset Management, Perspectives, November 2010.

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