



Why does active management matter now more than ever?

How active fixed income strategies may offer advantages over passive funds

Robert Pemberton, CFA, Managing Director
Naoum Tabet, Vice President & Director

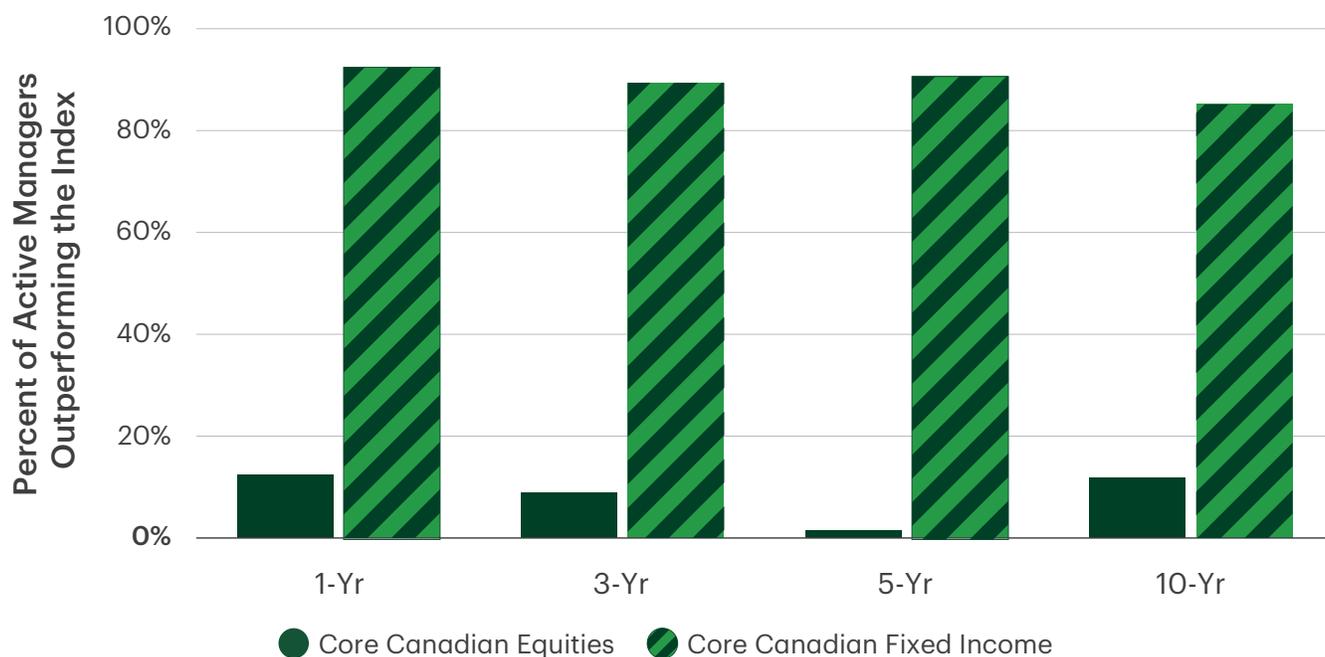
At a Glance

- The Median Active Fixed Income Manager has consistently outperformed the benchmark
- The ability to add value has significantly increased in the post Global Financial Crisis era
- The Canadian Fixed Income market structure has evolved in favour of active management

Over the past 30 years, the allocation to passive investment strategies has gained traction amongst institutional investors globally, with the notion that passive strategies tend to be more efficient, cost effective and outperform their active peers. However, we need to differentiate between active fixed income and active equities.

While a limited amount of select equity managers were able to post above benchmark returns over the same period, active fixed income managers were able to post above benchmark returns over the same period. This is illustrated in chart 1 below.

Chart 1: Consistent outperformance of core Canadian active fixed income strategies



Source: FTSE Canada universe Bond Index

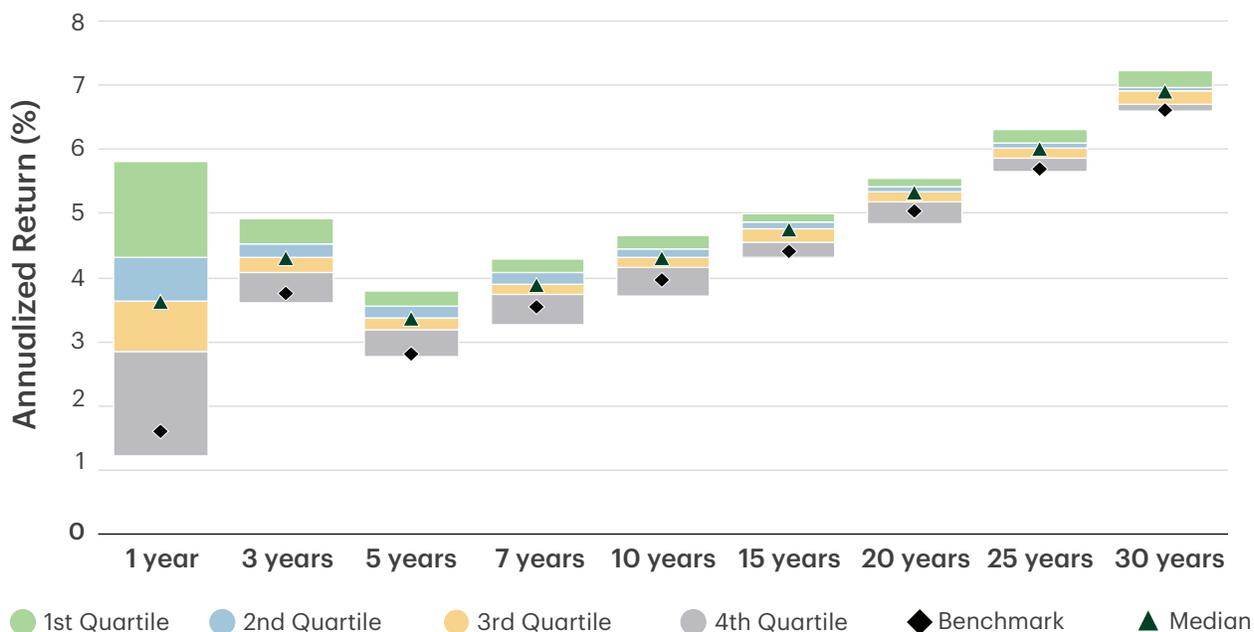
That being said, passive investment strategies still offer multiple advantages to institutional investors including low management fees, index characteristics replication and simplicity. Moreover, passive investment strategies enable them to satisfy some of institutional investors' specific investment objectives.

Invest

Comparing the performance and risk of the Median Canadian Core Fixed Income Manager versus the FTSE Canadian Universe Bond Index

Over multiple annualized return periods, core active Canadian fixed income strategies have proven to provide significant value add to investors. As shown in chart 2 below, the Median Canadian Active Core Fixed Income Manager was able to post above index annualized period returns, ranging from 30 basis points (bps) to 50 bps. More interestingly, it's also evident that the FTSE Canada Universe Bond Index has consistently ranked in the lowest quartile among the overall peer group of Canadian core fixed income managers.

Chart 2: Median Active Manager and Index Ranked Among the Canadian Core Fixed Income Universe



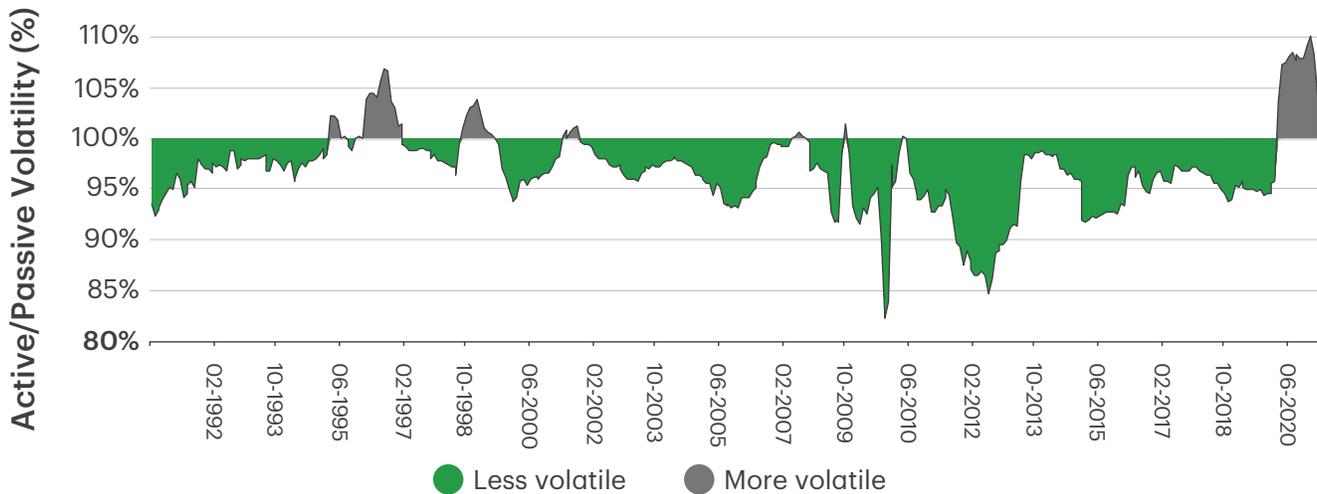
Source: eVestment. Data as of March 31, 2021.

In addition to an enhanced return profile, the median active manager has demonstrated an ability to manage and control investment risk. As illustrated in Chart 3 on the following page, the Median Active Canadian Core Manager's volatility was lower than the index volatility (approximately 85% of the time between June 1990 and March 2021).

The combination of above index returns, and a lower standard deviation illustrates that the median active core Canadian fixed income manager has a higher risk adjusted return when compared to the benchmark or to a passive Canadian fixed income manager.

Active

Chart 3: Active strategies are generally less volatile than passively managed strategies



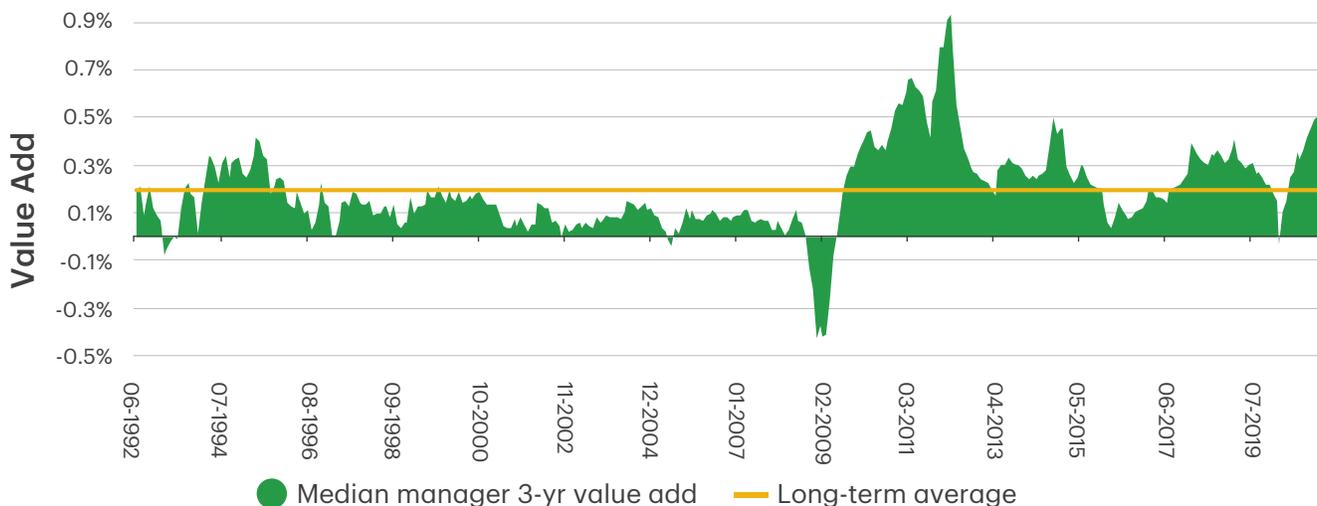
Source: eVestment and FTSE Canada. The one-year rolling standard deviation of the median active manager was compared to that of the FTSE Canada Universe Bond Index by dividing the former over the latter (active as a % of passive volatility). Data as of March 31, 2021

Why the Median Canadian Core Active Fixed Income Manager significantly outperforms its passive counterpart

By analyzing 35 years of data, we can isolate the excess returns of the active Canadian Core Fixed Income Median Manager into two distinct periods: Pre-2008 and Post-2008. Prior to the Global Financial Crisis, the case for active management was more difficult to justify as active Canadian core fixed income managers struggled to add meaningful excess return, and not surprisingly, this period coincided with a significant rise in passively managed fixed income assets.

However, post 2008, the median active manager was able to deliver strong excess returns, with multiple periods of more than 30 bps of value add, making the case that actively managed Canadian fixed income strategies better suit our current investment environment, as seen in chart 4 below.

Chart 4: Median Core Canadian Fixed Income Manager 3-year rolling value add vs. the FTSE Canada Universe Bond Index

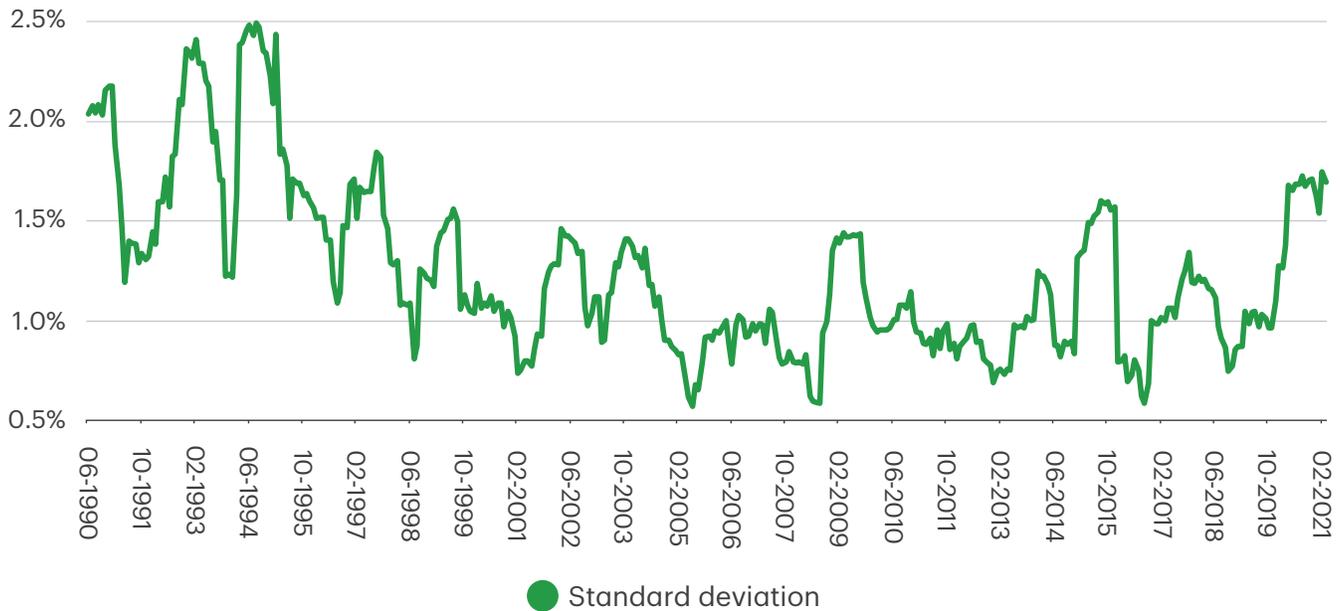


Source: Source: eVestment. Data as of December 31, 2020

Consequently, we need to answer the following question: Why did actively managed core Canadian fixed income strategies consistently outperform their passively managed peers in the post 2008 era?

According to an old investment adage, “The greater return volatility, the greater the opportunity to add value.” In other words, volatile period should benefit active managers. However, in chart 5, we can see that the historical rolling annual standard deviation of the FTSE Canada Universe Bond Index has been steadily declining since the 1990.

Chart 5: Rolling annual standard deviation of the FTSE Canada Universe Bond Index



Source: Source TDAM and FTSE. Data as of Dec 31, 2020.

Therefore, we cannot attribute the significant outperformance of active fixed income managers to the overall volatility of the index. In fact, the index overall volatility can be misleading due to the return dispersion of underlying index constituents. A more suitable statistical measure is the Kurtosis of returns. Kurtosis is a statistical measure that describes the distribution of potential outcomes. It measures the probability of having extreme values in the left and right tail of the return distribution.

A return distribution with a large Kurtosis number means that the probability of having extreme data points are higher compared to a normal distribution.

In contrast, distributions with low Kurtosis numbers exhibit tail data that are generally less extreme than the tails of the normal distribution.

During our analysis, we found that the value-add distribution displayed large Kurtosis numbers for the period following the financial crisis of 2008 (see Table 1). Therefore, we can state that it's not a high index return volatility that enables active managers to generate superior value add, but a return distribution with high Kurtosis characteristics, meaning that the distribution of returns around the mean is wider (see Chart 6).

Strategy

Table 1: Average value add and Kurtosis of the median manager broken down in three periods

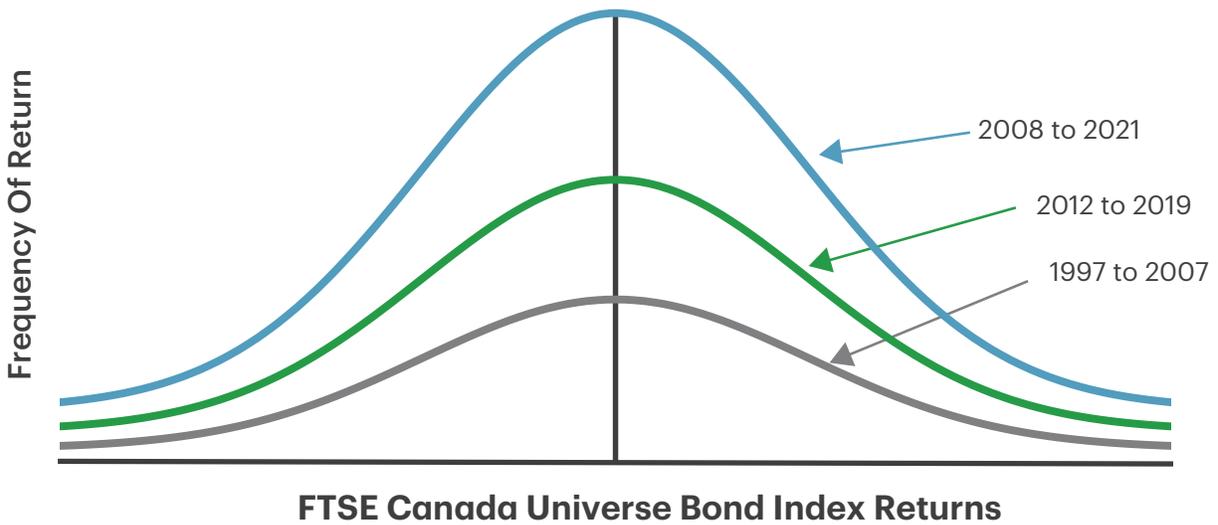
Period	1997 to 2007	2008 to 2021	2012 to 2019*
Average value add	5 bps	30 bps	20 bps
Kurtosis	0.07	5.46	1.57

Source TDAM, FTSE, Evestment. Data as of March 31, 2021.

*excluding the periods of the financial crisis and Covid-19

Note: equity market (S&P 500 monthly returns) Kurtosis for 1996 to 2007 was -1.23, and from 2008 to 2021 was -0.27

Chart 6: FTSE Canada universe Bond Index monthly distribution of returns over different periods



Source: TDAM. For illustrative purpose only.

A wider distribution of returns around the median, also known as Kurtosis risk, allows active managers to properly calibrate portfolios' interest rate and credit risk sensitivity in order to take advantage of market opportunities or protect portfolios against dislocations, hence the outperformance of active managers over the post-financial crisis period.

Alpha

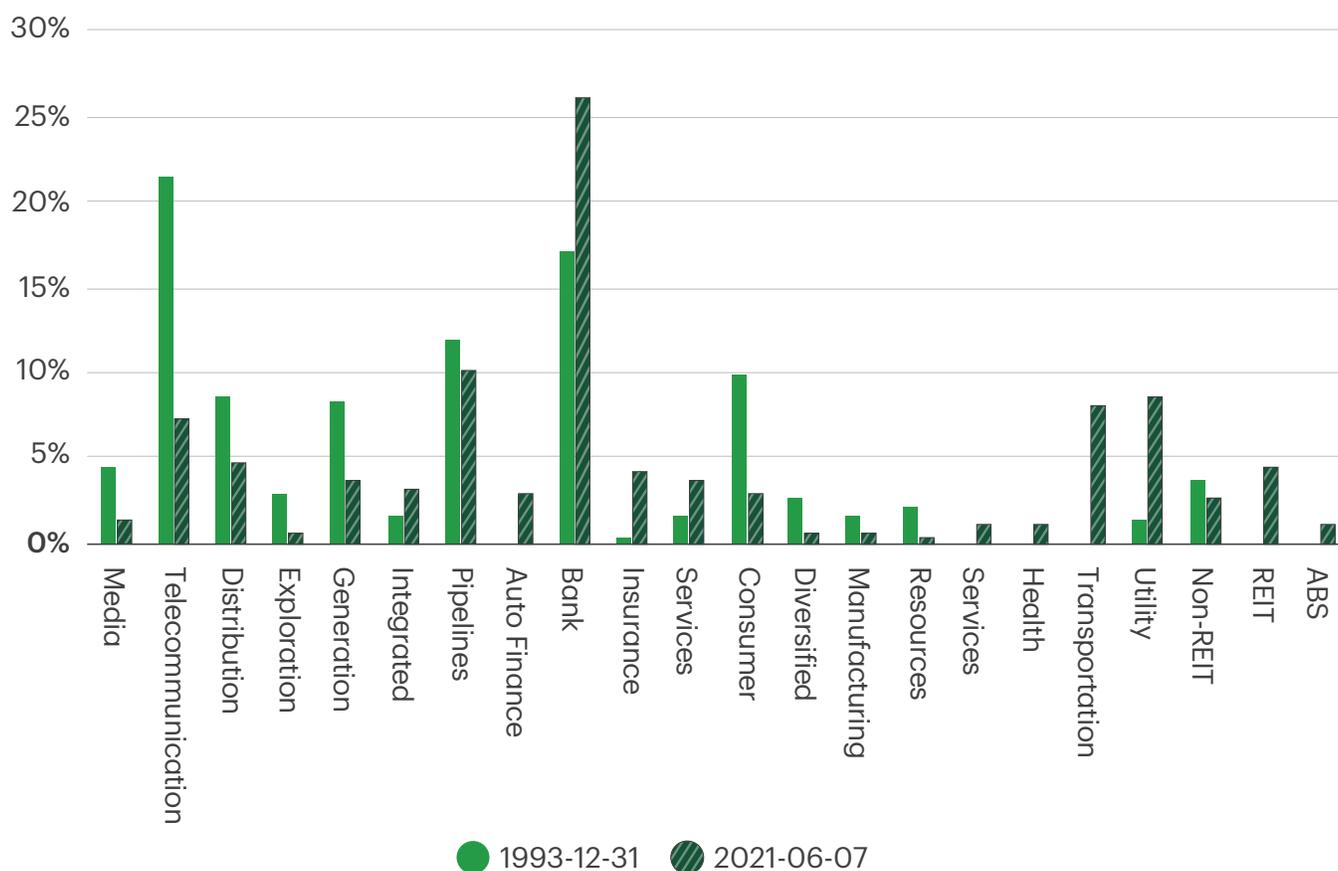
What caused the monthly distribution of fixed income returns to exhibit higher Kurtosis characteristics in the post financial crisis period?

Increased sector diversification

In the early 1990s, the Canadian bond market was divided into 16 corporate subsectors as shown in chart 7 below. However, since the Global Financial Crisis, sector diversification has increased as new issuers entered the public bond market. Currently, the FTSE Canada Universe Bond Index is broken down into 22 corporate subsectors.

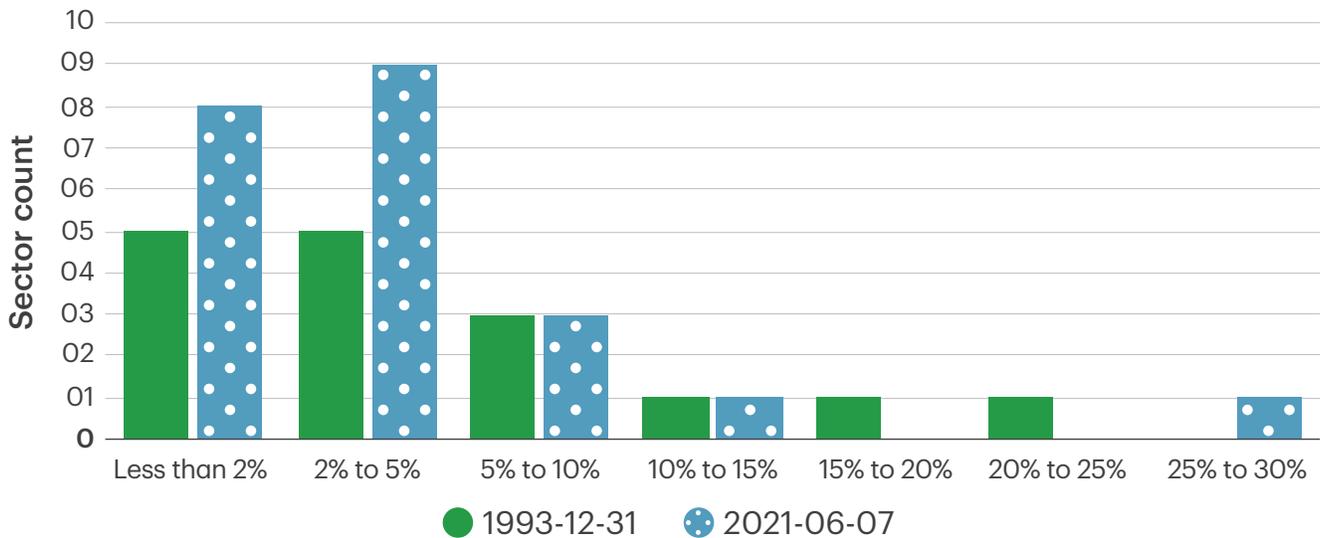
In addition, the number of smaller sub-sectors have increased significantly in the post financial crisis period (Chart 8). As a result, this new market structure allows active managers to utilize their portfolio construction expertise and sector rotation strategies to drive significant value add relative to the index.

Chart 7: Sector allocations over time



Source TDAM, FTSE.

Chart 8: Subsector count by weight segments

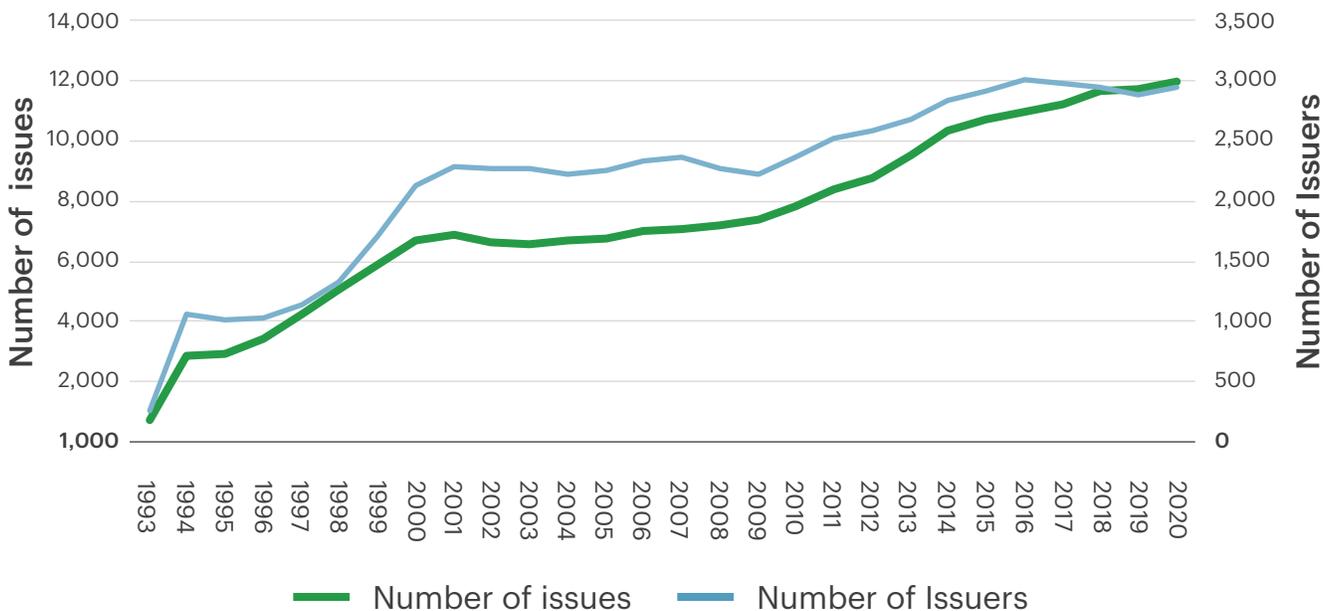


Source: Source TDAM, FTSE. Data as of June 7, 2021

Increased number of issuers and issues

Over the past 30 years, the number of issuers and issues have increased substantially. In 1993, the Canadian bond market was composed of 1053 issuers with a total of 2,837 individual issues outstanding. At the end of 2020, the number has nearly tripled for issuers with 2,940 issuers, while the number of individual issues more than quadrupled, with close to 12,000 individual fixed income securities (see Chart 9).

Chart 9: Increasing number of issuers and issues over time



Source: Source: FTSE Canada Universe, TDAM. Data as of December 31, 2020

How does the increased number of corporate issuers, individual securities and subsectors provide the median manager more opportunities to add value? A commonly used financial risk statistics measure, the Information Ratio, will provide a clear answer to that question.

The Information Ratio is composed of the information coefficient which measures the selection skills of a manager; breadth which measures the number of independent investment opportunities, and the transfer coefficient which measure the efficiency of the implementation. The main drivers of market breadth are the number of issuers, issues and subsectors. As shown in the formula below, the greater the breadth, the greater the information ratio, all else being equal.

$$\text{Information ratio} = \text{information coefficient} \times \sqrt{\text{breadth}} \times \text{transfer coefficient}$$

In summary, the greater the amount of independent investment opportunities, the greater the ability of an active manager to add value in a risk-controlled manner.

The impact of post Global Financial Crisis regulation

A third point as to the why post 2008 fixed income returns exhibit greater Kurtosis could also be explained by information found in a 2017 report produced by the U.S. Federal Reserve Bank (which also applies to the Canadian market). The report concluded that prior to the Great Financial Crisis, more levered and systemic institutions (investment banks) have had, on average, higher gross trading volumes. However, in the post 2008 period, the report states that institutions with higher leverage and higher trading revenue have lower overall transaction volume.

This evidence is consistent with more stringent leverage regulation and with investment banks being subject to more regulations overall. Also noted is the decrease in

overall trading activity related to their reduced ability to share risk with other intermediaries in the market. This paper provides direct empirical evidence on the impact of post-crisis regulations on the ability of more constrained intermediaries to provide liquidity in the corporate bond market.

Lower corporate bond market liquidity, albeit not material enough to limit trading or materially increase transaction costs, does and did create an opportunity for portfolio managers to take advantage of certain inefficiencies arising from the lower overall transaction volume which resulted in a slightly more inefficient corporate bond market.

Opportunities

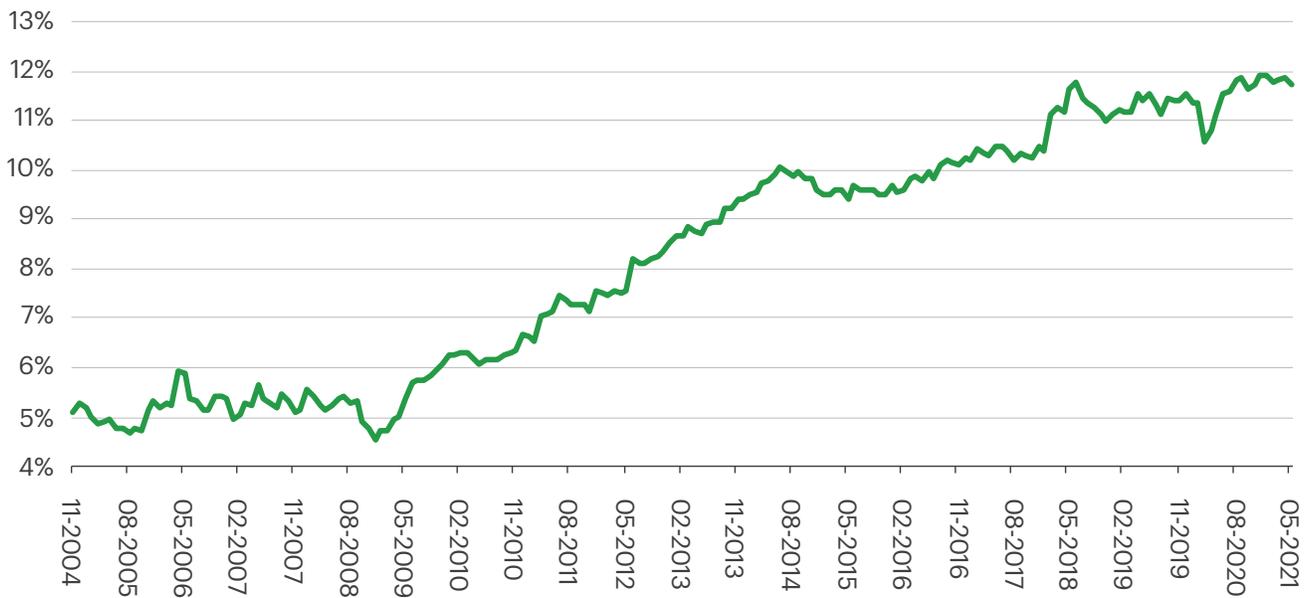
More BBB rated securities in the FTSE Canada Universe Bond Index

Though the BBB segment of the investment grade bond market has experienced significant growth over the past decade (Chart 10), the implied quality behind the rating segment is not wholly supported by its current debt ratings. Our research suggests that the increase in merger activity has been a strong contributor for the change in credit ratings within the BBB segment and their underlying credit evaluation metrics.

The implications are that numerous companies are being rated at their de-leveraged potential future rather than their highly leveraged present. To be clear, we are not stating that rating agencies have changed their surveillance, but that the sheer volume of M&A activity

in the market over the past ten years has overwhelmed their usual tolerance for allowing a company to de-leverage. This creates a wider return dispersion amongst BBB issuers. An active manager's independent assessment therefore becomes a crucial component of the fixed income evaluation process. Credit research teams help assess the risks involved in forward looking ratings and management's willingness and ability to meet their stated de-leveraging promises. By taking a holistic and pragmatic approach, an active manager is able to identify underlying risks and demand greater compensation for certain BBB-rated instruments; where the risks may be above what is implied by the rating.

Chart 10: Historical BBB weight in the FTSE Canada universe Bond Index



Source: FTSE Canada Universe. TDAM. Data as of May 31, 2021.

Growth

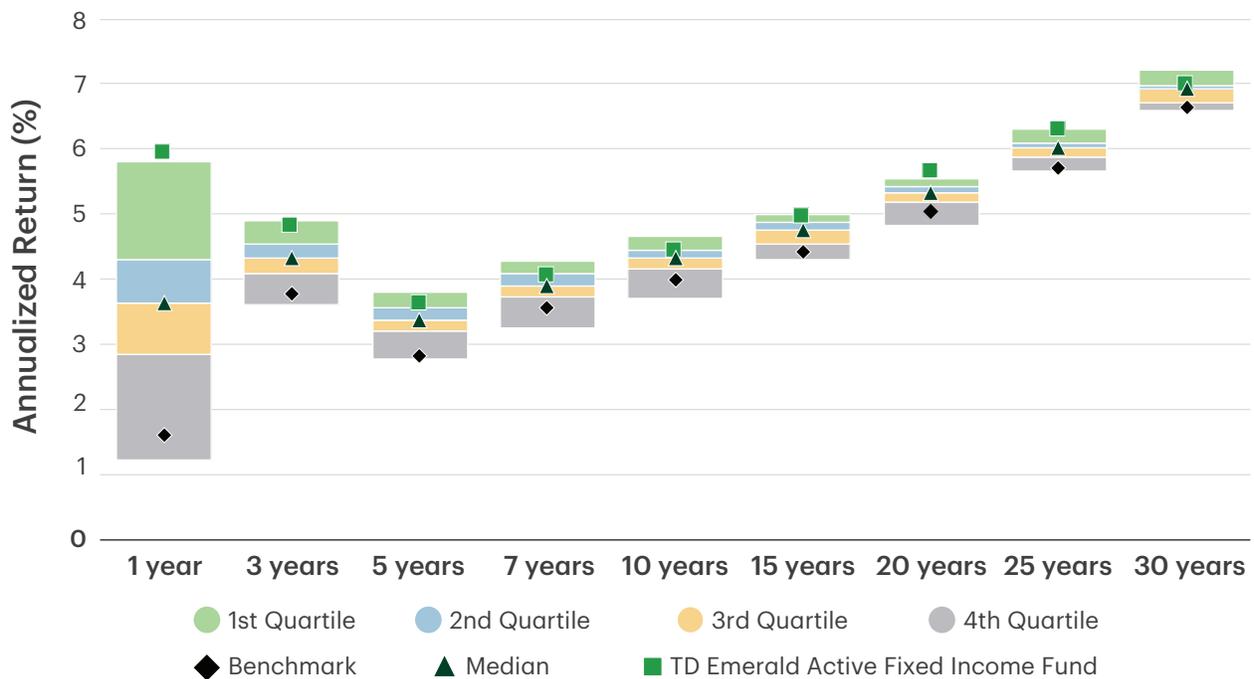
Choosing TDAM for your active fixed income needs

TD Asset Management Inc.'s (TDAM) active fundamental fixed income philosophy and investment process are built upon over 30 years of investment experience in macroeconomic analysis, credit research and in-depth yield and credit curve management. Our team has successfully navigated multiple market cycles and delivered value add to our clients.

In addition, our active Canadian core fixed income strategy has been consistently ranked top quartile

versus the overall peer group of Canadian core fixed income managers, illustrating the effectiveness of our investment philosophy and process. TDAM has navigated multiple market cycles, added value, avoided pitfalls and ranked top quartile versus our peer group as illustrated in chart 11 below.

Chart 11: TDAM, Median Active Manager, and Index ranked among the Canadian Core Fixed Income Universe

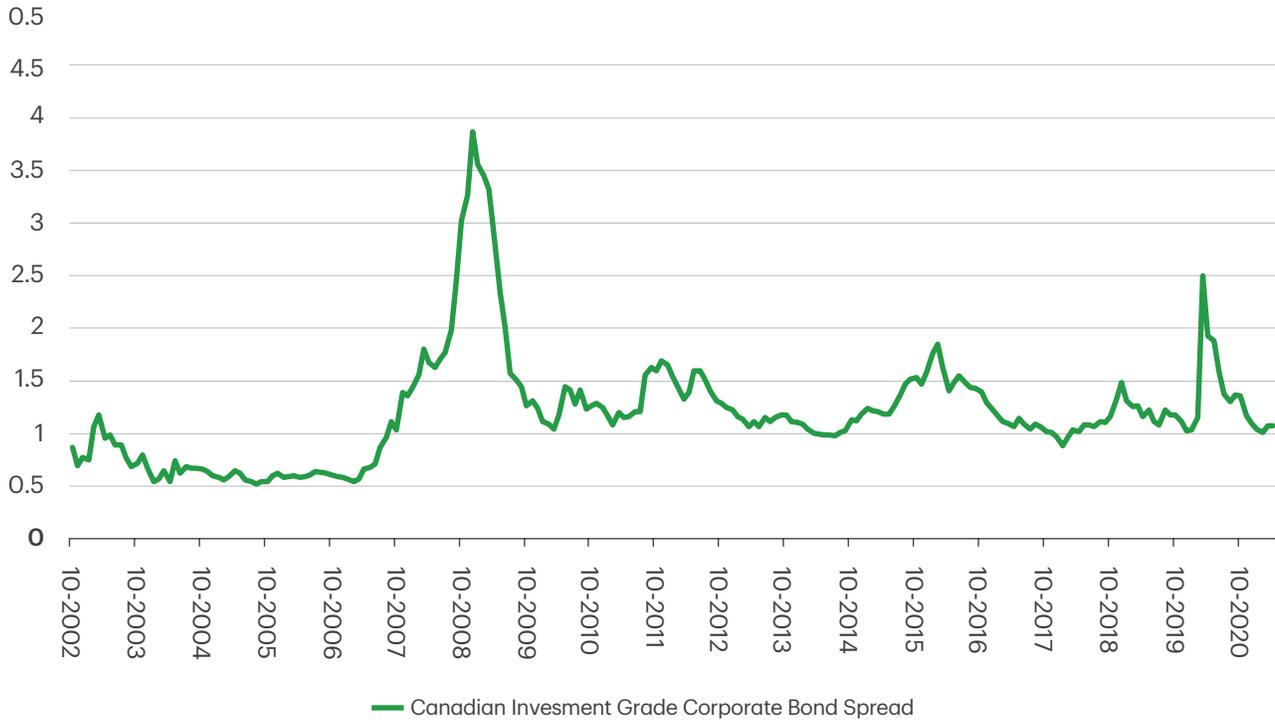


Source: TDAM, eVestment. As of March 31st, 2021.

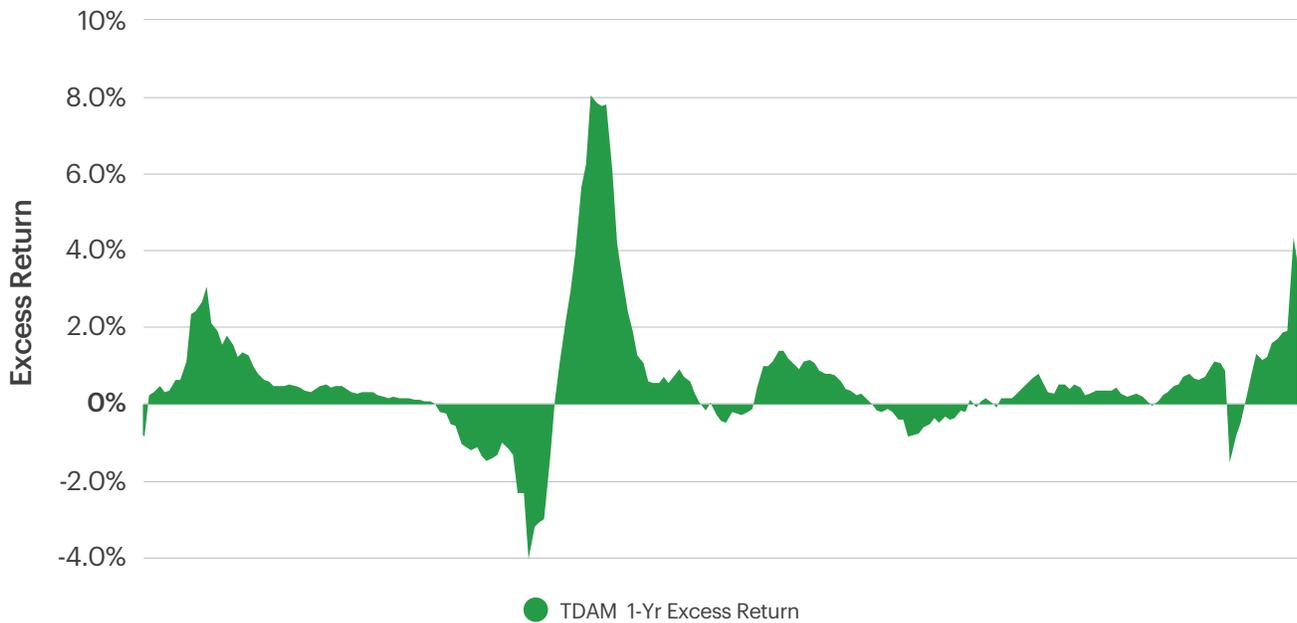
We are currently in a period of rapidly changing economic outlooks and this often leads to challenges, but more importantly, investment opportunities. At TDAM, we continue to utilize our analytical toolkit to identify relative value opportunities in the market and act on them accordingly. Our experienced investment professionals have worked diligently to help ensure the best potential outcomes for our clients. Our credit research team continues to identify and categorize risk, while our portfolio management team prices that risk in the market.

Following market events that caused credit spreads to widen over the past 15 years, TDAM was able to post significant above-benchmark returns (see Chart 12). Given our team's strong economic analysis and credit expertise, we can determine if events that impact financial markets are attributable to a deterioration in credit markets or systematic risk. Helped by sound credit analysis, our team can then identify compelling mispriced securities and take advantage of opportunities in credit markets. In short, the dynamic credit exposure that active managers offer is valuable to investors.

Chart 12: Canadian Corporate Bond Spreads and TDAM Core Fixed Income 1-yr Excess Returns



Source: Bloomberg L.P. Bloomberg Barclays Canada Aggregate Corporate. Data as of April 30, 2021



Source: Bloomberg L. P. Shaded areas represent period of crisis. Data as of April 30, 2021.

Institutional

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