

# ur Portfolio:

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For the last decade, a persistent low interest rate environment has created challenges for institutional investors looking to generate income from bond investments. The authors examine how trustees can utilize commercial mortgages to boost portfolio yields without significantly changing the risk profiles of their pension portfolios. ommercial mortgages have long been an attractive asset class for institutional investors, with excess liquidity, seeking to safely enhance the yields in their fixed income portfolio.

A mortgage is a loan with an underlying property used as collateral. Often the loan is used to purchase a property, build or make improvements to a property. Commercial mortgage portfolios invest in a pool of commercial mortgages on behalf of the investors in the fund. The terms for mortgage loans can range from one to three years for acquisition or development loans to seven to ten years for fully developed, income-producing properties.

Mortgage funds can be structured as open-end funds that permit ongoing contributions and withdrawals or as closedend funds that are locked in over the life of the fund. The returns of the fund are comprised of the interest payments made to the fund from the mortgages held, and any capital gains (or losses) on those mortgages, as a result of changes in interest rates, changes in mortgage spreads or changes in the credit ratings of the underlying borrowers.

Mortgage funds often fall into two risk categories: core/ core plus funds or high-yield funds. Core/core plus funds are typically comprised of core loans (e.g., loans backed by highly occupied buildings) or core plus loans backed by properties with reasonable occupation levels, often involving value-added construction projects designed to increase rental yields. The rental yield on a core/core plus portfolio is determined as a spread or enhancement over Government of Canada bond yields—normally 2-4%. Over the last ten years, yields on a core/core plus portfolio have ranged from 4-6%, with a high percentage of the portfolios comprised of first mortgage loans.

A core/core plus portfolio typically has a conservative loan-to-value ratio below 65%. The loan-to-value ratio is a measure of safety, which reflects the ratio of the total mortgage loan balance divided by the total appraised value of the properties. For example, where a mortgage has a 60% loan-tovalue ratio, the property price can fall by 40% before the first dollar of principal is at risk in the event of a mortgage default.

In contrast, a high-yield mortgage portfolio will typically hold a riskier portfolio of mortgages, including loans for land purchases, construction loans or value-added loans for buildings with low occupancy levels that may require significant construction to increase occupancy levels and rental yields. A high-yield portfolio will often have a higher proportion of second-priority mortgages and a higher loan-to-value ratio (often in excess of 70%). In exchange for assuming more risk, investors are compensated with higher yields. Over the last ten years, yields on high-yield mortgage portfolios have been in excess of 8%.

Historically, pension funds have strongly relied on fixed income investments to generate stable and predictable income to fund pension payments. A typical pension fund will invest between 40-50% of its portfolio in fixed income investments.

For the last decade, we have experienced a persistent low interest rate environment. This has created challenges for institutional investors looking to generate income from bond investments. This has led many boards of trustees to look to mortgages as a way to enhance portfolio yields without significantly changing the risk profiles of their pension portfolios.

The benefits of commercial mortgages included the following.

- Higher yields—Mortgage funds offer attractive yield spreads over traditional bond portfolios. Investors are effectively trading off liquidity for a significant yield enhancement. In the current environment, the yield enhancement over Canadian bonds would be 2-3%.
- Safety—When high-quality commercial properties back them, commercial mortgages offer enhanced yields with more security. Core mortgage portfolios will have low loan-to-value ratios (typically below 65%). This means that the loan principal should be protected if the real estate market does not correct by

### **Takeaways**

- Historically, pension funds have relied on fixed income investments to generate stable and predictable income to fund pension payments. The last ten years have highlighted the challenges that pension funds have in managing a high allocation to traditional fixed income investments in a lowinterest environment.
- Many boards of trustees have looked to mortgages as a way to enhance portfolio yields without significantly changing the risk profiles of their pension portfolios.
- Mortgages are frequently included in pension plans' fixed income allocations. Compared to daily traded regular bonds, mortgage funds are often less liquid.
- Floating rate commercial mortgages offer significant benefits over fixed-rate portfolios and should be considered a component of any mortgage allocation.

more than 35%. Unlike direct investments in real estate, mortgage income is received without direct ownership of the underlying real estate assets, thereby reducing the exposure to real estate market volatility.

- Less interest rate sensitivity—The duration of commercial mortgage portfolios tends to be lower than most traditional bond portfolios, better protecting mortgage portfolios in the event that interest rates change.
- Strong risk/return characteristics—Mortgage portfolios have historically had a low correlation with equities. They also have a lower level of volatility than many other yield-enhancement strategies, such as corporate bonds. Accordingly, an allocation to mortgages in a traditional balanced portfolio can reduce overall portfolio volatility.

Most mortgage funds invest in fixed rate mortgages. Fixed rate mortgages involve loans provided for a fixed term (often five years) at a fixed interest rate over the period of the loan. When interest rates fall, the loan's value increases, resulting in a capital gain. Conversely, when interest rates rise, the loan's value decreases, resulting in a capital loss. Portfolio returns consist of the interest paid on the loan, plus any capital gains or losses associated with interest rate changes.

In contrast, variable rate mortgages have a floating interest rate obligation that adjusts with changes in market interest rates. Once the rate has been set, it rises or falls automatically with any interest rate changes. The returns of variable rate mortgages are comprised

## FIGURE 1

Canadian Fixed Income vs. Mortgage Returns—Annual Returns

	Annual Returns				
Fund/Index/Universe	2018	2019	2020	2021	2022
FTSE Canada Universe Bond Index	1.4%	6.9%	8.7%	-2.5%	-11.7%
Canadian Mortgage Universe Median (eVestment)	4.2%	4.7%	6.2%	1%	-2.3%
Representative Variable Rate Portfolio	6.6%	6.8%	5.8%	5.8%	6.5%

Source: The Institutional Mortgage Capital Active Mortgage Fund.

### FIGURE 2

Canadian Fixed Income vs. Mortgage Returns— Five-Year Returns and Risk Characteristics

	Annualized Returns	5-Year Risk Measures		
	As of 12/31/2022	As of 12/31/2022		
Fund/Index/Universe	5 Year	Std. Dev.	Sharpe Ratio	
Canadian Universe Bond Index	0.3%	5.6%	-0.2	
Canadian Mortgage Universe Median	2.4%	2.4%	0.5	
Representative Variable Rate Portfolio	6.3%	0.3%	17.3	

Source: The IMC Active Mortgage Fund.

entirely of the interest payments on the mortgage, and they do not experience capital gains or losses as a result of changes in interest rates.

The benefits of a floating rate mortgage portfolio over a fixed rate portfolio include the following.

 Higher yields—Variable rate mortgages command higher interest rates. Fixed rate mortgages are priced with a spread off of Government of Canada bond yields, while variable mortgages are priced with a similar spread off of bank prime rates (a higher base rate). By moving from fixed to variable rate mortgages, investors can increase their yields by 1.5-2% on each loan.

- The duration (or interest rate sensitivity) of a lower volatility variable rate portfolio is close to zero. The returns generated from the portfolio are derived from the interest rate payments received, and interest rate shifts do not impact the portfolio. As a result, the volatility of variable rate portfolio performance tends to be lower than that of fixed rate funds.
- Better risk/return characteristics—Most variable rate mort-

gages are negotiated with a floor rate of interest equal to the initial interest rate level. This creates an asymmetric risk profile in the loans. If interest rates rise, the variable mortgage rate automatically increases in lockstep, protecting investors. However, if interest rates fall (as they did in 2020), the floor prevents the variable rate loans from adjusting lower, again protecting investors.

• Lower correlations with traditional fixed rate portfolios—Because of the extremely low duration of variable rate mortgage portfolios, they have low correlations to traditional fixed income portfolios.

Pension funds have tended to treat mortgages as a component of their fixed income allocations. Mortgage funds are typically less liquid than traditional bonds, which are traded daily. In contrast, open-ended mortgage funds typically offer monthly or quarterly liquidity. Given the long-term nature of their obligations, most pension funds have excess liquidity and can tolerate the moderately reduced liquidity of mortgage funds.

The last ten years have highlighted the challenges that pension funds have in managing a high allocation to traditional fixed income investments in a low-interest environment. Through the last decade, Government of Canada bonds have been generating yields at or below the level of inflation. For example, the ten-year Government of Canada bond yield in 2019 hovered in the 1.5-1.7% range, while inflation was measured at 1.95%. That means that after inflation, the interest income was negative. A direct allocation to commercial mortgages can enhance fixed income yields while maintaining similar risk characteristics. The security of the mortgage provides better long-term protection than is available through most corporate bonds, where loan collateral can include more speculative sources, such as inventory and receivables. Also, lower duration mortgage funds can reduce the interest rate sensitivity of the fixed income portfolio.

Figure 1 illustrates commercial mortgages' benefits to a fixed income portfolio. The tables compare the returns of the FTSE Canada Universe Bond Index to the median eVestment mortgage fund. Also included, for comparison, is a representative variable rate core/core plus mortgage fund—the Institutional Mortgage Capital Active Mortgage Fund.

In years when interest rates were relatively stable, such as in 2018, the median mortgage fund outperformed the bond index since mortgages have a yield advantage over regular bonds. The representative variable rate fund outperformed bonds and mortgages since variable rate mortgages will normally attract higher yields than fixed rate bonds since they are priced with a spread above the bank prime rate and not above Government of Canada bonds.

In 2020, the COVID shock caused the Bank of Canada to cut interest rates in an attempt to stimulate the economy. Falling interest rates helped bond fund returns, which benefitted from capital gains on their bond portfolios. Fixed

# BIOS

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rate mortgages also saw a benefit from capital gains as interest rates fell, but a smaller one since they tend to have shorter durations. The variable rate fund shown in Figure 1 did not accrue any capital gains; however, it was protected somewhat by the floor negotiated in its variable rate loans. All three asset classes performed well in 2020's declining interest rate environment. Bonds outperformed fixed mortgages. Variable mortgages were able to match fixed income performance due to the higher yields of their loans.

2022 introduced new challenges, as rising inflation levels triggered a sharp rise in interest rates. This increase in interest rates triggered large capital losses in bond portfolios. Rising interest rates triggered smaller capital losses in fixed mortgage portfolios due to their lower durations. However, the median mortgage fund still lost money. The floating rate mortgage portfolio, on the other hand, benefitted from the interest rate hikes. It experienced no capital losses while its portfolio yield rose automatically with interest rates due to the floating nature of its mortgage portfolio. The current yield in a floating rate core/core plus mortgage portfolio is 8-9%. The current yield in a floating rate high-yield mortgage portfolio is in excess of 12%.

As Figure 2 illustrates, over a very tumultuous five-year period in the fixed income market, fixed rate mortgages outperformed bonds and had lower return volatility. However, variable rate mortgages significantly outperformed both bonds and fixed rate mortgages, with much lower volatility in returns.

In conclusion, commercial mortgage portfolios represent an excellent way for pension funds to enhance their fixed income portfolio yield without significantly changing the risk profile of the portfolio. Floating rate commercial mortgages offer significant benefits over fixed rate portfolios and should be considered a component of any mortgage allocation.

