Long-term strategic asset allocation

May 2024

Estimated reading time
45 minutes

Inside this paper

Overview

Welcome to CIBC Asset Management's (CAM's) 2024 Long-term strategic asset allocation (LTSAA) paper. This report is a core component of CAM's ongoing commitment to consistently deliver value for our clients' evolving needs. It provides our key long-term strategic portfolio construction recommendations, customized to fit five broad investor profiles. Each of these profiles has a distinct recommended asset allocation, reflecting specific investor return objectives, income and liquidity requirements and risk tolerances. For each profile, we believe our recommended asset mix maximizes the probability of achieving long-term performance objectives, provided investors remain invested.

In addition to the five broad investor profiles, ranging from lower to higher risk tolerances, we continue to provide asset allocation recommendations for three categories of an investor's ability and willingness to take on investment breadth ("breadth tolerance"): 1) Canadian-only assets, 2) Global traditional assets and 3) Diversified Portfolio with Alternatives. Every investor's situation is unique, with their preference for asset exposure based on their comfort level, knowledge and other individual circumstances. By providing a wide range of templates for investors to choose from, we offer all investors a solid, customizable foundation so they can implement a disciplined long-term investing approach.

In this year's edition, we have made several important changes to enhance expected returns and increase portfolio efficiency:

- We have reduced strategic debt exposure to further realize the benefits of the equity risk premium, via higher strategic allocations to equities. This is a continuation and completion of the changes we initiated in last year's edition. To see the probabilistic range of outcomes of this higher equity exposure in 2024's portfolios versus 2023's recommended allocations, refer to Figure 4 for a Monte Carlo simulation comparison.
- Within fixed income, we have reduced short-term Canadian Fixed Income in favour of standard duration investment grade Canadian Fixed Income. This reflects the more attractive yield opportunities in general, and the ability to lock in higher rates, given the observation of longer-term returns being closely related to starting yield (refer to Figure 5). For clients with truly short time horizons, advisors should adjust this additional interest rate risk carefully.
- Consistent with the Diversified with Alternatives portfolios, we have divided global equity into its component parts (US, International and Emerging Markets) in the Traditional Global Assets Portfolio to allow for finer granularity in our recommendations. We have made a general reduction of Canadian equity exposure in favour of more US equity exposure. This change reflects improved outlooks outside of Canada and acknowledges the dynamic trend in country exposures within the global market over the past 14 years (Please refer to Figure 3 – US Equity, Canadian Equity and International Equity as a percentage (%) of MSCI World Index: 2009–2023).
- For portfolios that allow exposure to alternatives, we have increased liquid alternative equity exposure and encourage readers to find unique opportunities to participate in equity-like returns with differentiated performance patterns. We also generally increased liquid alternative debt exposure and recommend that readers find suitable solutions that address the potential for rate volatility while also providing competitive expected returns, versus the reasonably attractive yields offered in the fixed income markets today.

Table 1: 2024 Long-term strategic asset allocation (LTSAA) recommendations

Canadian assets only

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	10.0%	8.0%	4.0%	3.0%	0.0%
Canadian fixed income	Traditional fixed income	65.0%	52.0%	36.0%	22.0%	10.0%
Canadian equity	Traditional equity	25.0%	40.0%	60.0%	75.0%	90.0%

Traditional global assets

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	8.0%	6.0%	4.0%	2.0%	0.0%
Canadian fixed income	Traditional fixed income	55.0%	34.0%	20.0%	13.0%	3.0%
Global fixed income (hedged to CAD)	Traditional fixed income	7.0%	10.0%	7.0%	5.0%	3.0%
US high yield	Traditional fixed income	5.0%	10.0%	9.0%	5.0%	4.0%
Canadian equity	Traditional equity	8.0%	10.5%	16.5%	21.0%	23.0%
US equity	Traditional equity	8.0%	15.0%	25.0%	30.0%	36.0%
International equity	Traditional equity	7.0%	12.0%	15.0%	19.0%	24.0%
Emerging market equity	Traditional equity	2.0%	2.5%	3.5%	5.0%	7.0%

Please note:
- "Global Equity" in the 2024 Traditional Global Assets Portfolio is divided into US Equity, International Equity and EM Equity.
- The "Aggressive Growth" risk profile from prior LTSAA papers is renamed to "Growth Plus".

Diversified portfolio with alternatives

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	8.0%	5.0%	3.0%	2.0%	0.0%
Canadian fixed income	Traditional fixed income	53.0%	30.0%	18.0%	8.0%	0.0%
Global fixed income (hedged to CAD)	Traditional fixed income	2.0%	6.0%	2.0%	2.0%	0.0%
Emerging market bonds	Traditional fixed income	2.0%	3.0%	3.0%	2.0%	2.0%
US high yield	Traditional fixed income	4.0%	9.0%	8.0%	5.0%	3.0%
Canadian equity	Traditional equity	7.0%	9.5%	14.5%	18.0%	20.0%
US equity	Traditional equity	7.0%	13.5%	22.0%	26.0%	30.0%
International equity	Traditional equity	6.0%	11.0%	13.5%	16.0%	20.0%
Emerging market equity	Traditional equity	2.0%	2.0%	3.0%	4.0%	6.0%
Global infrastructure	Alternative equity	3.0%	2.0%	2.0%	2.0%	0.0%
Liquid alternatives (fixed income)	Alternative fixed income	3.0%	4.0%	4.0%	3.0%	2.0%
Liquid alternatives (equity)	Alternative equity	0.0%	2.0%	3.0%	2.0%	3.0%
Private equity	Alternative equity	0.0%	0.0%	2.0%	4.0%	6.0%
Private credit	Alternative fixed income	3.0%	3.0%	2.0%	3.0%	3.0%
Private real estate	Alternative equity	0.0%	0.0%	0.0%	3.0%	5.0%

Table 2: Asset class weights, portfolio expected return & risk[1]

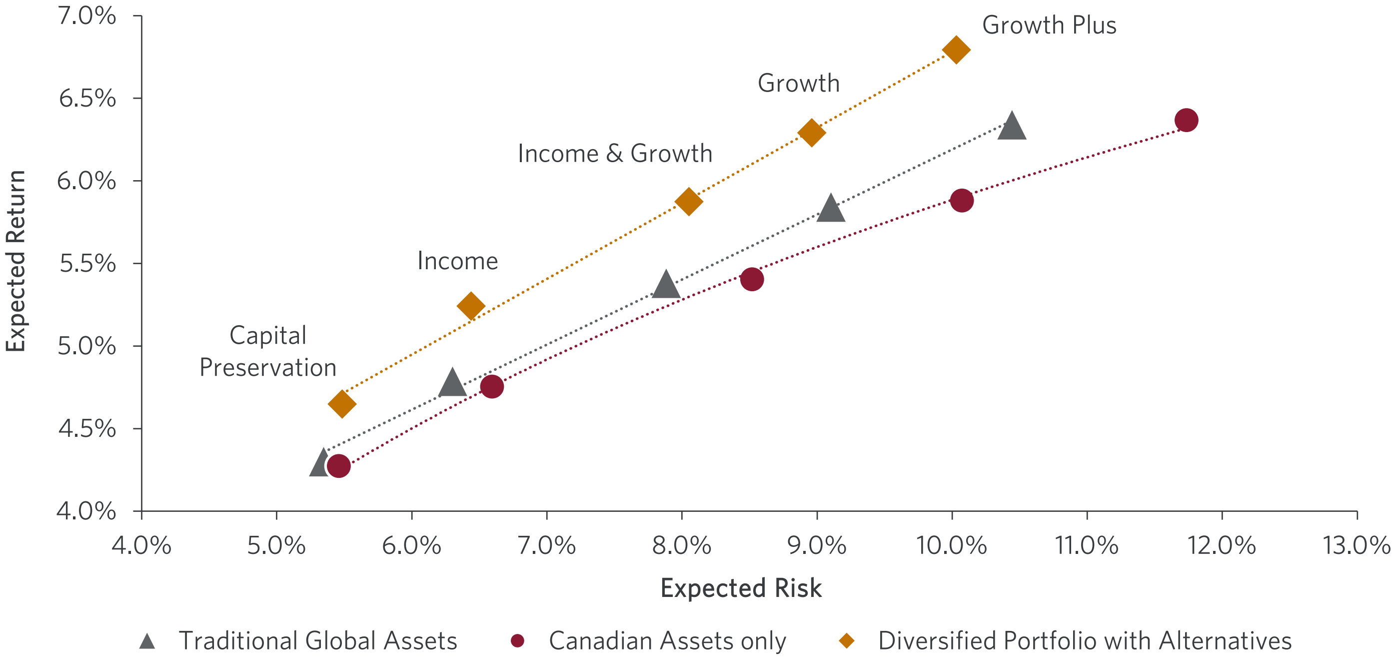
Canadian assets only	Expected return %	Expected risk %	Fixed income %	Equity %
Capital Preservation	4.3%	5.5%	75%	25%
Income	4.8%	6.6%	60%	40%
Income & Growth	5.4%	8.5%	40%	60%
Growth	5.9%	10.1%	25%	75%
Growth Plus	6.4%	11.7%	10%	90%

Traditional global assets	Expected return %	Expected risk %	Fixed income %	Equity %
Capital Preservation	4.3%	5.3%	75%	25%
Income	4.8%	6.4%	60%	40%
Income & Growth	5.4%	7.9%	40%	60%
Growth	5.8%	9.1%	25%	75%
Growth Plus	6.3%	10.5%	10%	90%

Diversified portfolio with alternatives	Expected return %	Expected risk %	Fixed income %	Equity %	Traditional fixed income %	Traditional equity %	Alternatives %
Capital Preservation	4.6%	5.4%	75%	25%	69%	22%	9%
Income	5.2%	6.3%	60%	40%	53%	36%	11%
Income & Growth	5.9%	7.9%	40%	60%	34%	53%	13%
Growth	6.3%	8.6%	25%	75%	19%	64%	17%
Growth Plus	6.8%	9.6%	10%	90%	5%	76%	19%

Figure 1: 2024 expected return and risk (10-year forward looking)

Expected Return and Risk of 2024 LTSAA Portfolio



Source: CIBC Asset Management Inc., as of December 31, 2023.

Table 3: 2024 Asset mix recommended changes vs 2023

Canadian assets only

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	-10.0%	0.0%	0.0%	0.0%	0.0%
Canadian fixed income	Traditional fixed income	5.0%	-8.0%	-7.0%	-1.0%	0.0%
Canadian equity	Traditional equity	5.0%	8.0%	7.0%	1.0%	0.0%

Traditional global assets

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	-12.0%	-4.0%	0.0%	-2.0%	0.0%
Canadian fixed income	Traditional fixed income	20.0%	4.0%	6.0%	9.0%	3.0%
Global fixed income (hedged to CAD)	Traditional fixed income	-13.0%	-10.0%	-8.0%	-5.0%	3.0%
US high yield	Traditional fixed income	0.0%	0.0%	0.0%	-4.0%	-6.0%
Canadian equity	Traditional equity	-7.0%	-9.5%	-14.5%	-10.0%	-7.0%
Total global equity exposure	Traditional equity	12.0%	19.5%	16.5%	12.0%	7.0%

Diversified portfolio with alternatives

Asset class	Asset class category	Capital Preservation	Income	Income & Growth	Growth	Growth Plus
Canadian short-term fixed income	Traditional fixed income	-7.0%	-10.0%	-7.0%	-2.0%	0.0%
Canadian fixed income	Traditional fixed income	20.0%	5.0%	3.0%	3.0%	0.0%
Global fixed income (hedged to CAD)	Traditional fixed income	-8.0%	-4.0%	-5.0%	-6.0%	0.0%
Emerging market bonds	Traditional fixed income	-3.0%	0.0%	0.0%	-1.0%	-1.0%
US high yield	Traditional fixed income	-3.0%	2.0%	1.0%	-1.0%	-2.0%
Canadian equity	Traditional equity	-3.0%	-5.5%	-3.5%	-3.0%	-1.0%
US equity	Traditional equity	0.0%	3.5%	7.0%	7.0%	6.0%
International equity	Traditional equity	3.0%	6.0%	3.5%	3.0%	4.0%
Emerging market equity	Traditional equity	2.0%	2.0%	-2.0%	-1.0%	-4.0%
Global infrastructure	Alternative equity	-2.0%	-3.0%	-3.0%	-2.0%	-3.0%
Liquid alternatives (fixed income)	Alternative fixed income	-2.0%	-1.0%	1.0%	3.0%	2.0%
Liquid alternatives (equity)	Alternative equity	0.0%	2.0%	3.0%	2.0%	3.0%
Private equity	Alternative equity	0.0%	0.0%	0.0%	-2.0%	-2.0%
Private credit	Alternative fixed income	3.0%	3.0%	2.0%	0.0%	-2.0%
Private real estate	Alternative equity	0.0%	0.0%	0.0%	0.0%	0.0%

Table 4: 2024 Expected risk/return and asset class category changes vs 2023

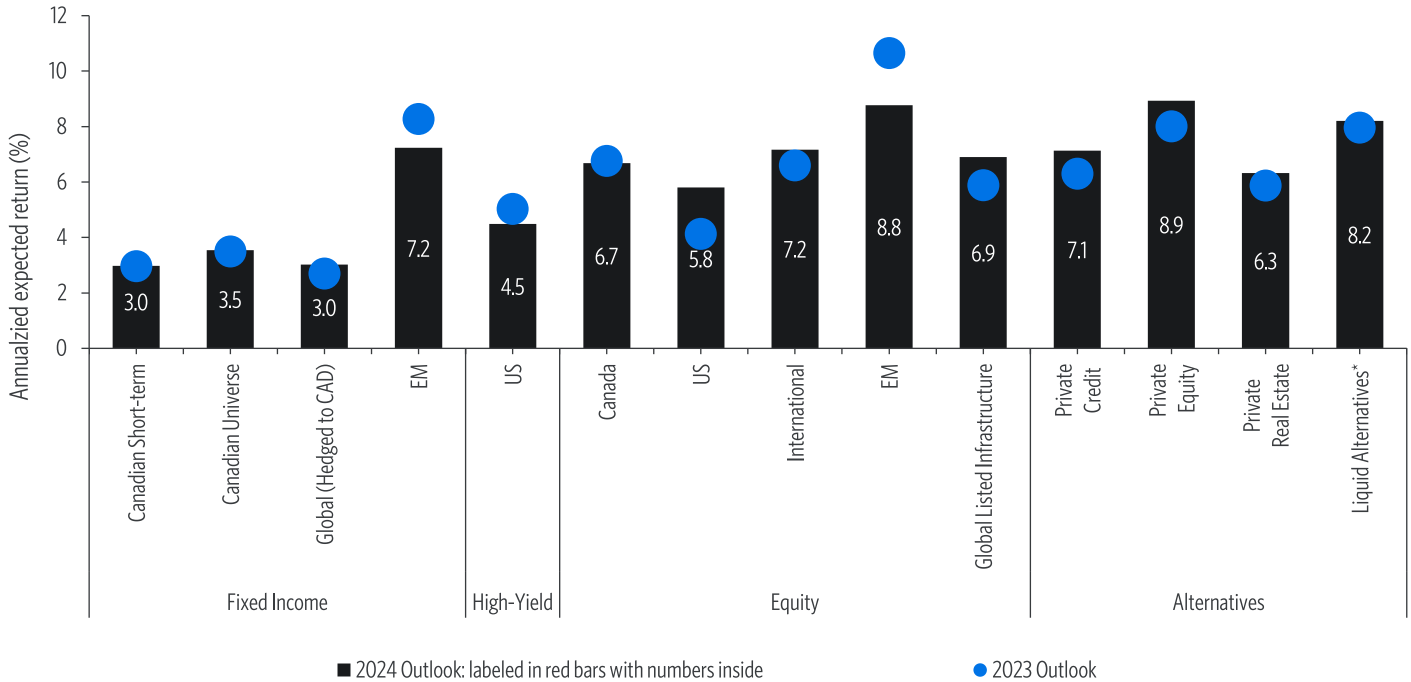
Canadian assets only	Expected return %	Expected risk %	Fixed income %	Equity %
Capital Preservation	0.2%	0.9%	-5%	5%
Income	0.3%	0.9%	-8%	8%
Income & Growth	0.2%	1.0%	-7%	7%
Growth	0.0%	0.4%	-1%	1%
Growth Plus	-0.1%	0.3%	0%	0%

Traditional global assets	Expected return %	Expected risk %	Fixed income %	Equity %
Capital Preservation	0.4%	1.0%	-5%	5%
Income	0.5%	1.1%	-10%	10%
Income & Growth	0.3%	0.7%	-2%	2%
Growth	0.4%	0.6%	-2%	2%
Growth Plus	0.5%	0.1%	0%	0%

Diversified portfolio with alternatives	Expected return %	Expected risk %	Fixed income %	Equity %	Traditional fixed income %	Traditional equity %	Alternatives %
Capital Preservation	0.2%	0.4%	0%	0%	-1%	2%	-1%
Income	0.6%	0.9%	-5%	5%	-7%	6%	1%
Income & Growth	0.5%	1.0%	-5%	5%	-8%	5%	3%
Growth	0.6%	1.2%	-4%	4%	-7%	6%	1%
Growth Plus	0.3%	1.1%	-3%	3%	-3%	5%	-2%

Changes in long-term expected returns

Figure 2: Long-term expected returns, 10-year average, %

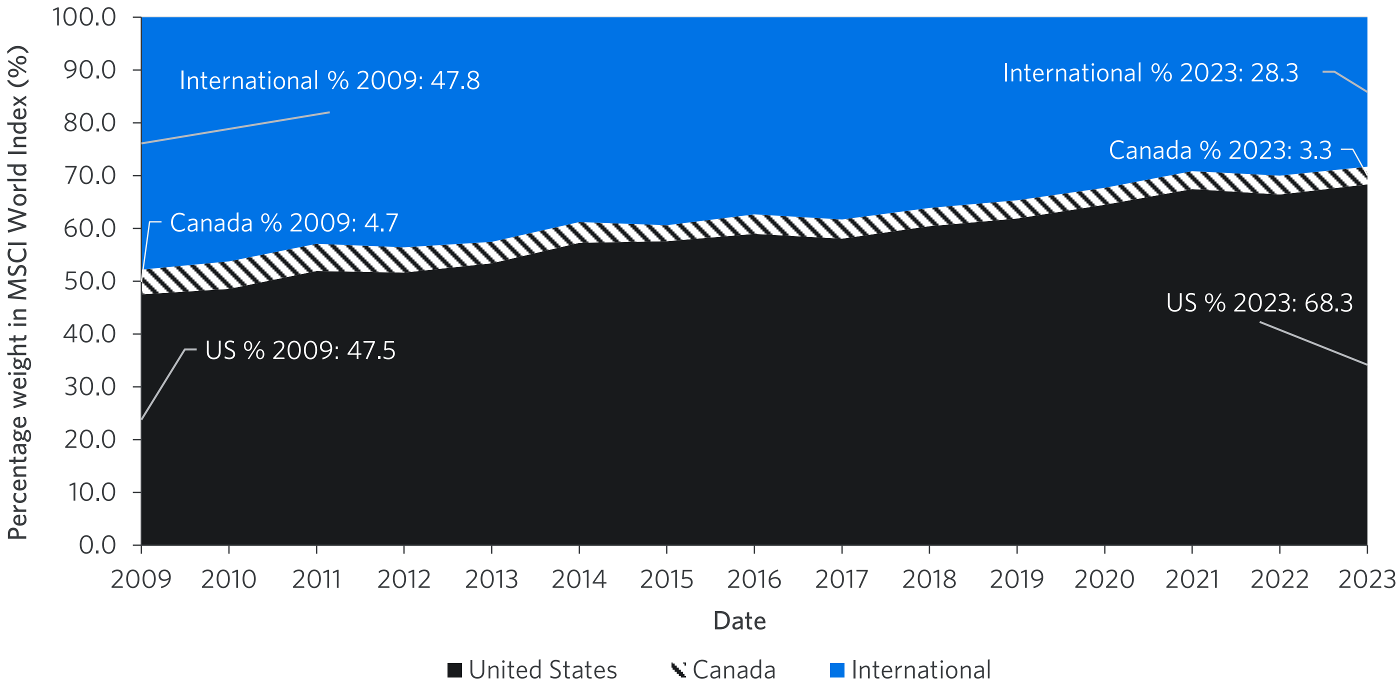


Source: CIBC Asset Management Inc. using data from the following third-party providers: Bloomberg; LSEG Datastream; PitchBook, as at December 31, 2023. *Liquid Alternatives include both liquid fixed income and liquid equity alternatives.

CIBC Asset Management's proprietary long-term expected returns are a key consideration in setting asset mixes. These expected returns are derived from a forward-looking assessment of income, growth and valuation, and are a good starting point for a discussion around the relative attractiveness of asset classes. While details are available in the linked paper, highlights include an increase in expected returns to developed market public equity, reflecting investment tailwinds that create a more constructive long-term economic outlook. This includes US large-cap equity, notwithstanding strong performance over the past decade and more. A stronger economic outlook also means higher bond yields than were common during the 2010s, and a return to levels closer to those experienced in the 2000s. This means more attractive expected returns on government bonds, as well as corporate, high-yield and emerging markets (EM) bonds.

Changes in market composition: 2009–2023

Figure 3 – US Equity, Canadian equity and International equity as a percentage (%) of MSCI World Index: 2009–2023



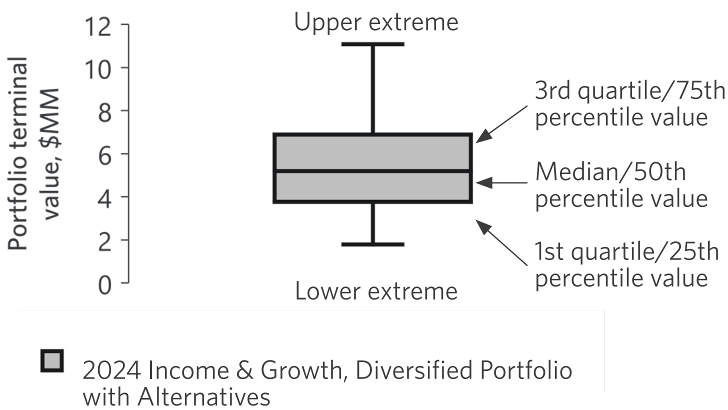
Source: Bloomberg, CIBC Asset Management Inc., as of December 31, 2023.

Externalities in the market, such as when indexes become concentrated around a small number of fast-growing companies, can disrupt a thoughtful and consistent expected return framework for an extended period. This has been the case in the global equity market for the past 14 years, where US exposure has increased consistently and significantly in the global equity index (Figure 3). While a consistent, fundamental-based expected return framework can provide comfort around relative asset attractiveness, a strategic asset allocation program should also be responsive to the dynamics of the market. Because of these considerations, we have increased US equity exposure as a portion of the overall equity mix.

Increase in equity exposure supported by expected outcome paths

The Monte Carlo simulations below reflect a forward-looking statistical analysis of portfolio outcomes using our proprietary expected returns, risk and correlations across asset classes. Random returns using these parameters are generated on a monthly basis for a 30-year period. This process is repeated 100 times to create 100 alternative random portfolio return paths, which allows us to comment on expected outcomes.

Figure 4a: Monte Carlo simulation – Terminal portfolio value (in $millions) of Income & Growth, Diversified Portfolio with Alternatives in 30 years, starting from $1 million initial investment

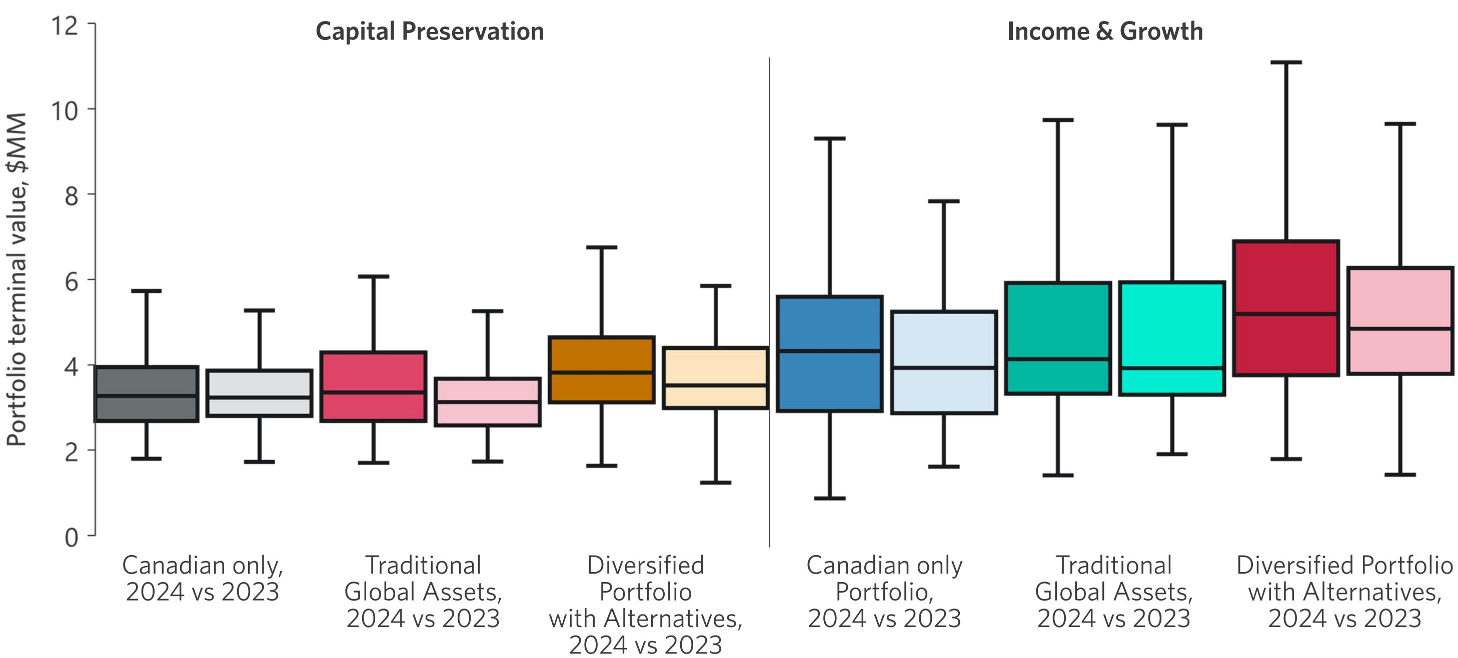


Source: CIBC Asset Management, Inc.

Definitions:

1. The upper fence of the shaded box is the 3rd quartile/75th percentile value (Q3); by definition, the Q3 portfolio terminal value beats 75% of the entire dataset; put differently, there is 25% probability that the portfolio terminal value is greater than Q3.
2. The lower fence of the shaded box is 1st quartile/25th percentile value (Q1); the Q1 portfolio terminal value beats 25% of the entire dataset; put differently, there is 75% probability that the portfolio terminal value is greater than Q1.
3. The upper extreme is defined by the datapoint closest to Q3 + 1.5 x interquartile range; Interquartile range (IQR) is the difference between Q3 and Q1.
4. The lower extreme is defined by the datapoint closest to Q1 – 1.5 x interquartile range.

Figure 4b: Monte Carlo simulation – Terminal portfolio values (in $millions) in 30 years, starting from $1 million initial investment, comparing Capital Preservation vs Income & Growth; Asset Mix and expected risk/return of 2024 vs 2023; three categories of investment "breadth tolerance"



Source: CIBC Asset Management Inc., as at December 31, 2023. Using expected return, risk and correlation inputs, we are able to identify various paths of expected returns for various asset mix combinations. This hypothetical scenario is shown for illustrative purposes only and is not indicative of future results. Please refer to the Disclaimer page for further information.

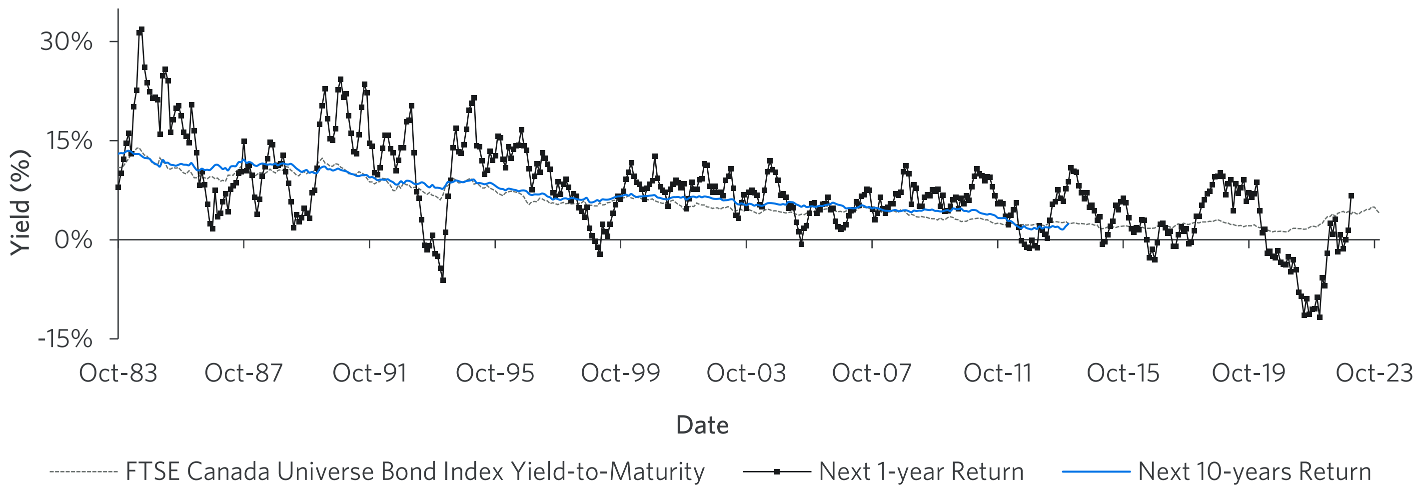
This analysis reveals that for clients with a longer investment timeframe, taking on more equity risk premium results in higher expected returns (in figure4b, horizontal median lines for each portfolio are higher in 2024 than 2023)*. In addition, and reflective of portfolio diversification, this additional expected return also comes without a meaningful change in expected maximum capital drawdown; the lower fence of each 2024 portfolio box, which is the lower bound of outcomes in 75% of time periods, is no worse than the comparable 2023 box for most investor profiles.

* This improvement also partly reflects an increase in expected equity returns in our latest LTER paper, in addition to portfolios having more exposure to equity premium.

Sources of returns: yield and earnings growth

Within fixed income allocations, investors with a long-term timeframe (10 years or more) should find reliable sources of yield and diversify across borrower types to mitigate credit risk. History shows that the starting yield available on a diversified portfolio of bonds is a very good predictor of returns over the long run, but in the short run there is little connection (Figure 5).

Figure 5: Starting yield as a return forecast

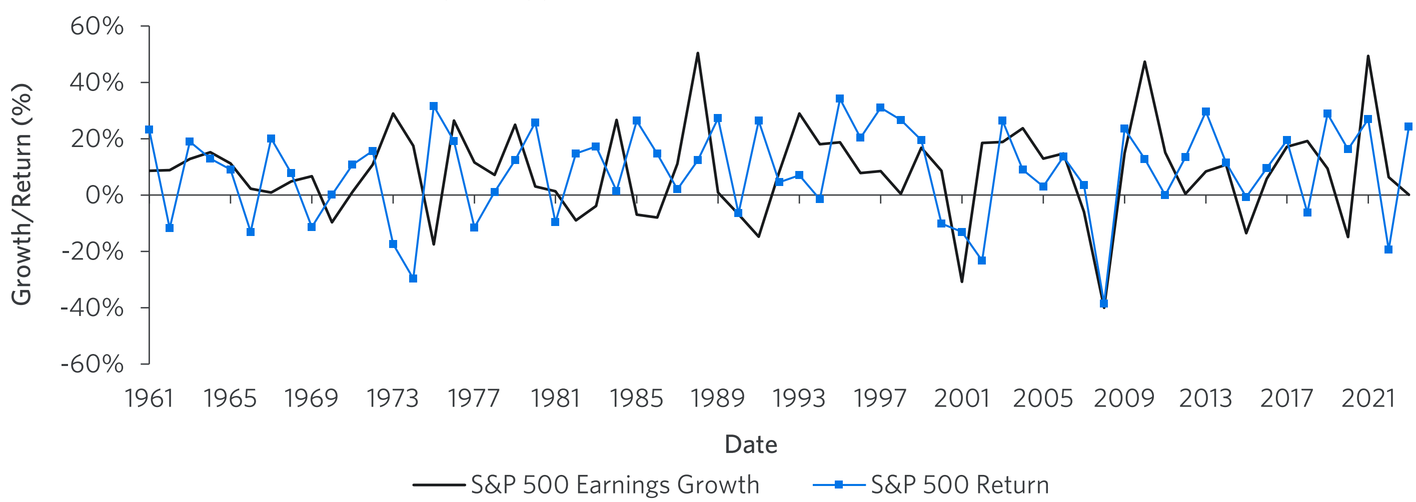


Source: CIBC Asset Management Inc. and FTSE, as of December 31, 2023.

Today's starting yield of ~4.5% (as of April 30, 2024) on the diversified investment-grade only FTSE Canada Universe Bond Index represents an attractive yield relative to those available over the past 15 years and portends well for long-term returns. These yields also create the conditions for performance tailwind and portfolio diversification across assets in the event of risk-off scenarios that might arise in the future.

Over the long run, earnings growth has historically allowed a diversified portfolio of stocks to generate attractive returns. As shown in Figure 6, since 1961, earnings growth in the S&P 500 does not closely match the price return of the index in any given year, with a correlation of about 0.14. However, over the long run, both earnings growth and price return have averaged about 7%, as the voting machine of the market succumbs to the weighing machine of company fundamentals. Realizing the equity risk premium depends on this continued growth in earnings. Based upon our long-term projections for nominal GDP growth (our proxy for earnings growth), we expect earnings growth will be similar to historical precedent.

Figure 6: Earnings growth and share price appreciation

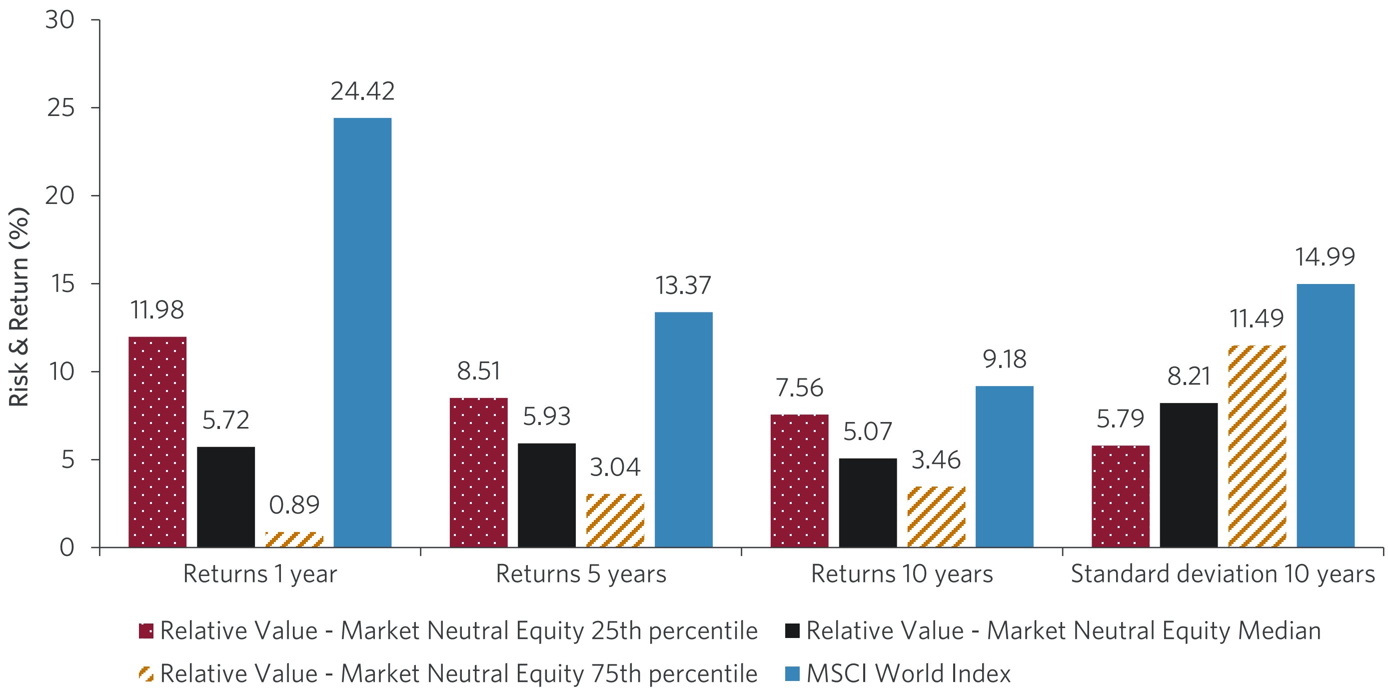


Source: https://pages.stern.nyu.edu/~adamodar/ as of December 31, 2023.

Enhancing expected returns with alternatives

Given the strength of traditional equity markets buoyed by a high level of liquidity, most notably benefiting the US market, market-neutral equity fund returns have largely not been able to beat the MSCI World Index over the past 10 years ending December 2023. However, consistent with their purpose, the exposure of these funds to the equity market has been low, with a median R-squared of 0.09 over this sample period, and they have exhibited lower volatility as a result. The first-quartile return of the market-neutral equity universe over the same 10-year period, at 7.56%, represents a strong absolute performance, and given low market exposure, the result is likely to be derived from manager skill, rather than exposure to beta. Good manager selection in alternatives is therefore critical to realizing the expected benefits within this asset class.

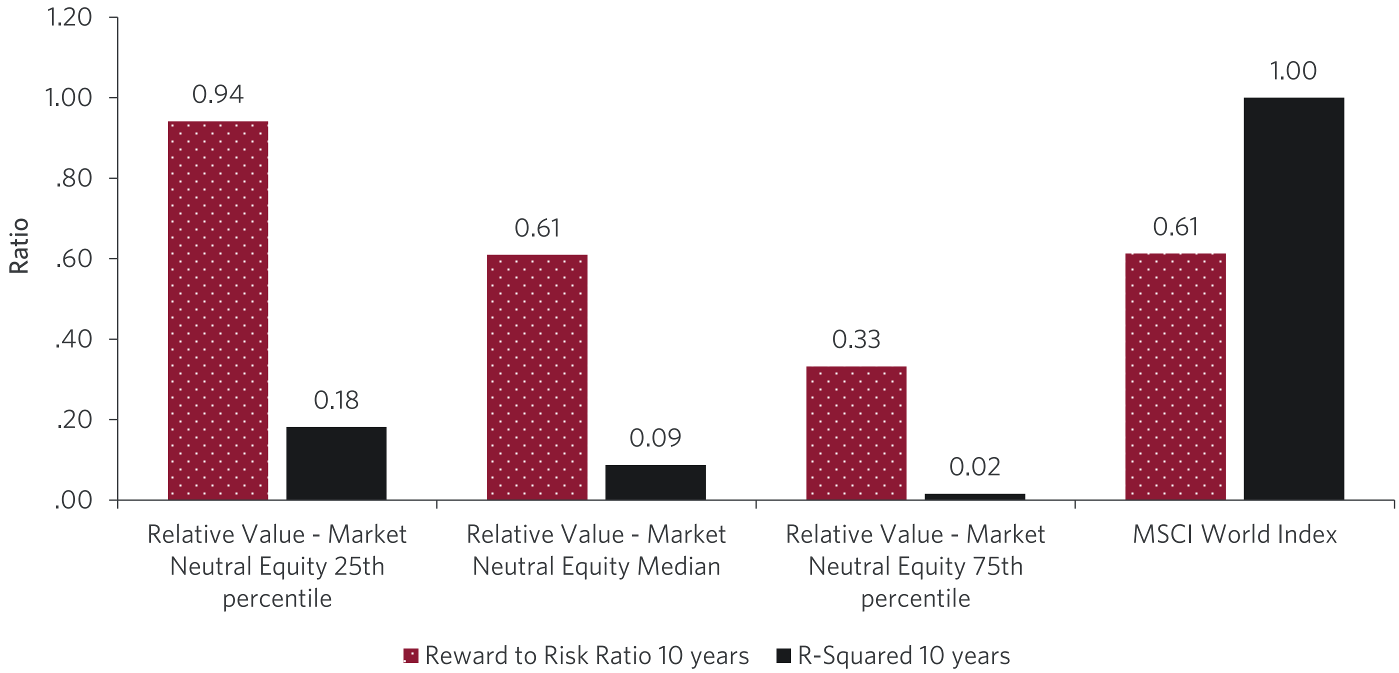
Figure 7: Returns and risk – Relative value market neutral equity funds vs. MSCI World



Source: eVestment, as of December 31, 2023.

Figure 8: Efficiency and market exposure – relative value market-neutral equity funds vs. MSCI World

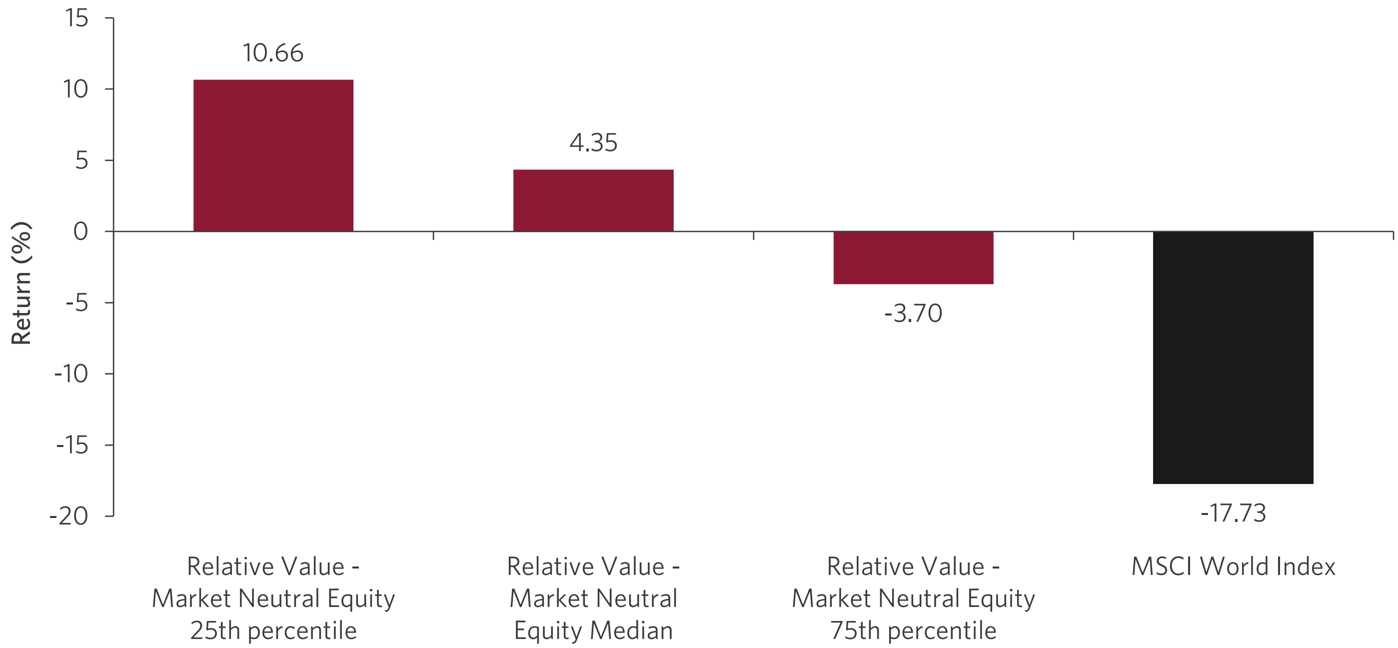
(Period ending December 31, 2023)



Source: eVestment, as of December 31, 2023.

A particular benefit we expect to harvest from market-neutral equity strategies is differentiation during down markets. This was evidenced in 2022, when the median market-neutral manager delivered a positive return while the global equity benchmark was down -17.73% in US dollar terms.

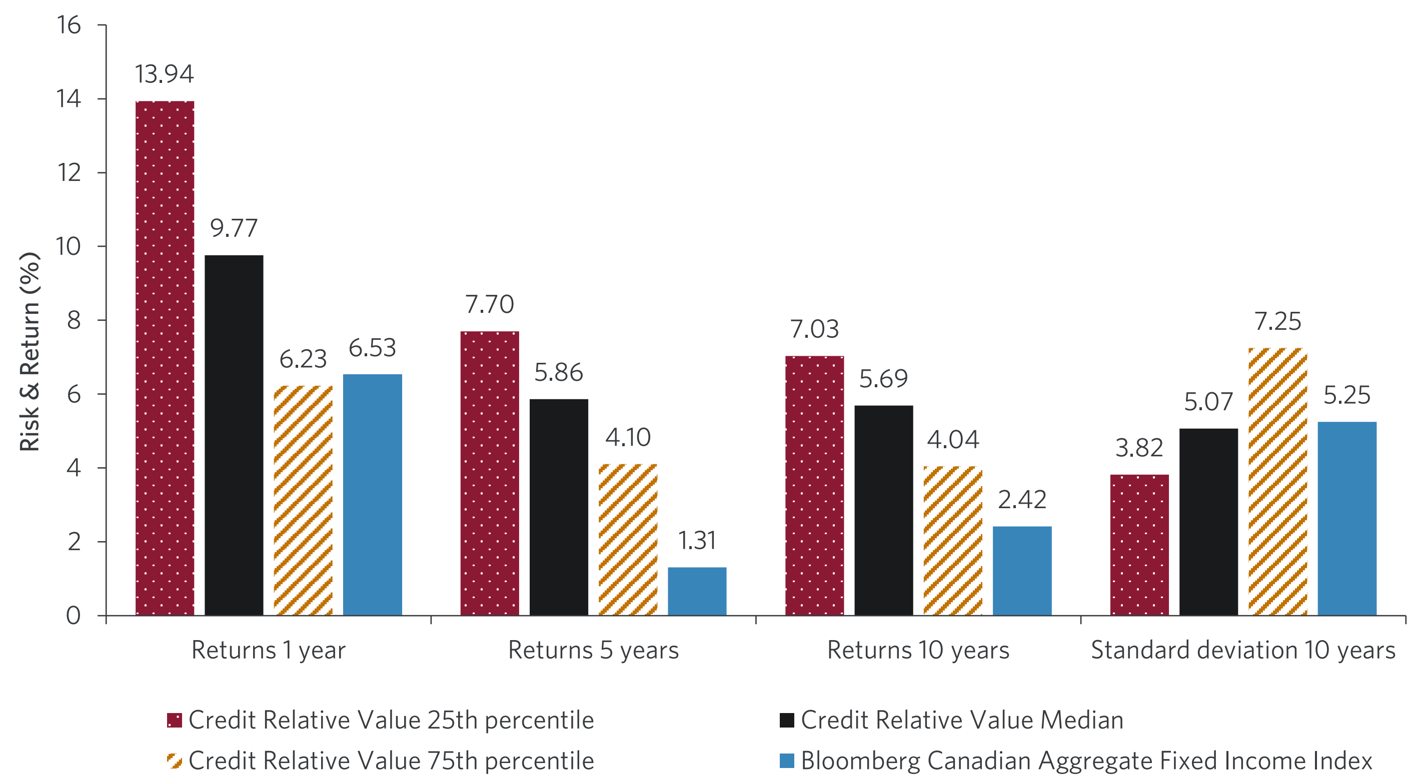
Figure 9: Market-neutral strategies performance in down market (2022)



Source: eVestment; performance period: January 1, 2022 – December 31, 2022.

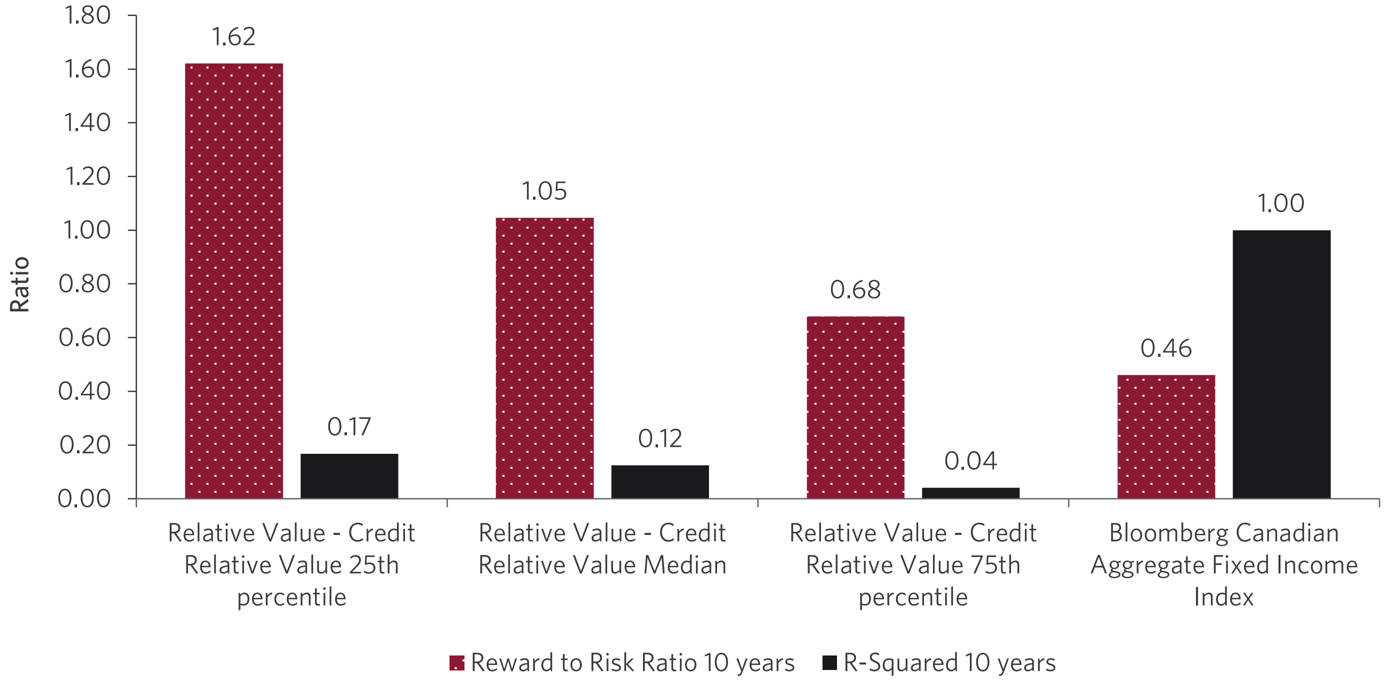
Similarly, as the charts below show, alternative ways of accessing fixed income markets have proven to be effective in a low-yield environment. While the current higher yield environment does offer a more positive backdrop for traditional bond returns over the next 10 years, we believe that supplementing core fixed income allocations with a well-chosen alternative fixed income fund can enhance returns and provide additional diversification.

Figure 10: Returns and risk – Credit relative value funds vs. Bloomberg Canadian aggregate fixed income index



Source: eVestment, as of December 31, 2023.

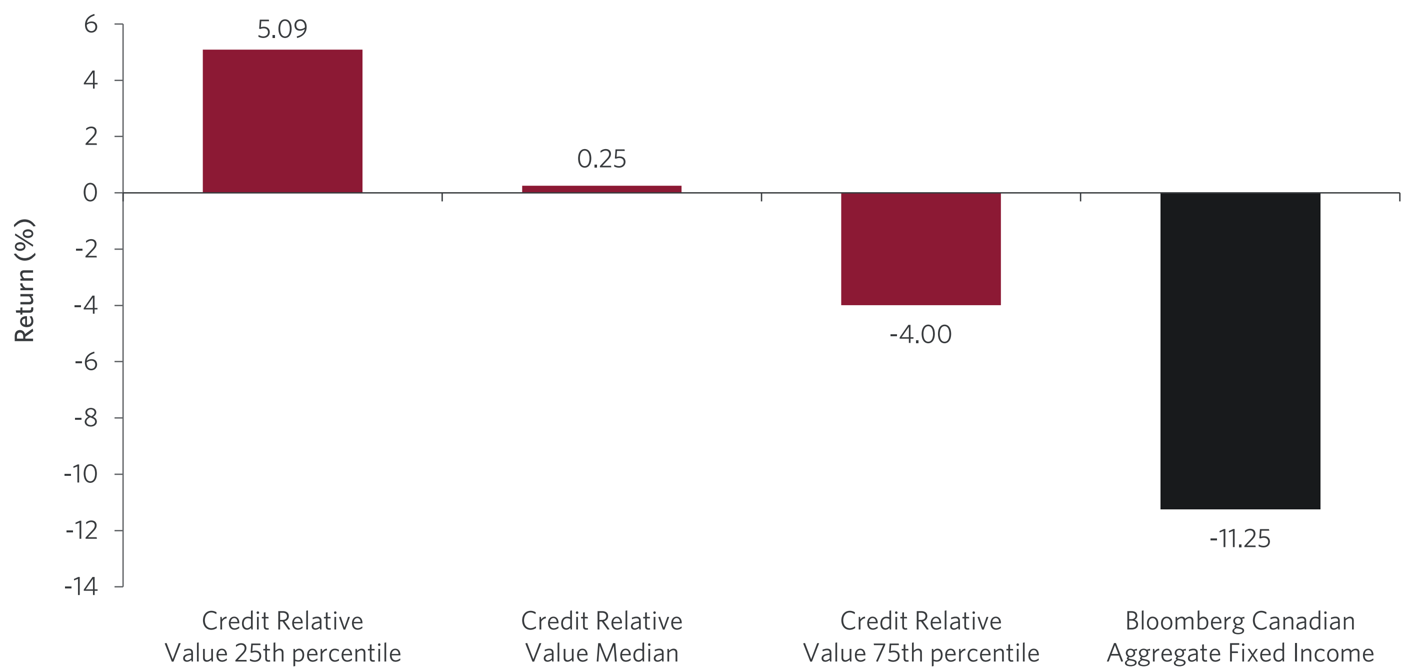
Figure 11: Efficiency and market exposure – Credit relative value funds vs. Bloomberg Canadian aggregate fixed income index



Source: eVestment, as of December 31, 2023.

As with alternative equity solutions, the value of these alternative fixed income products comes through particularly well in down markets, such as 2022, given their lower beta to the broad market.

Figure 12: alternative fixed income performance in down market (2022)

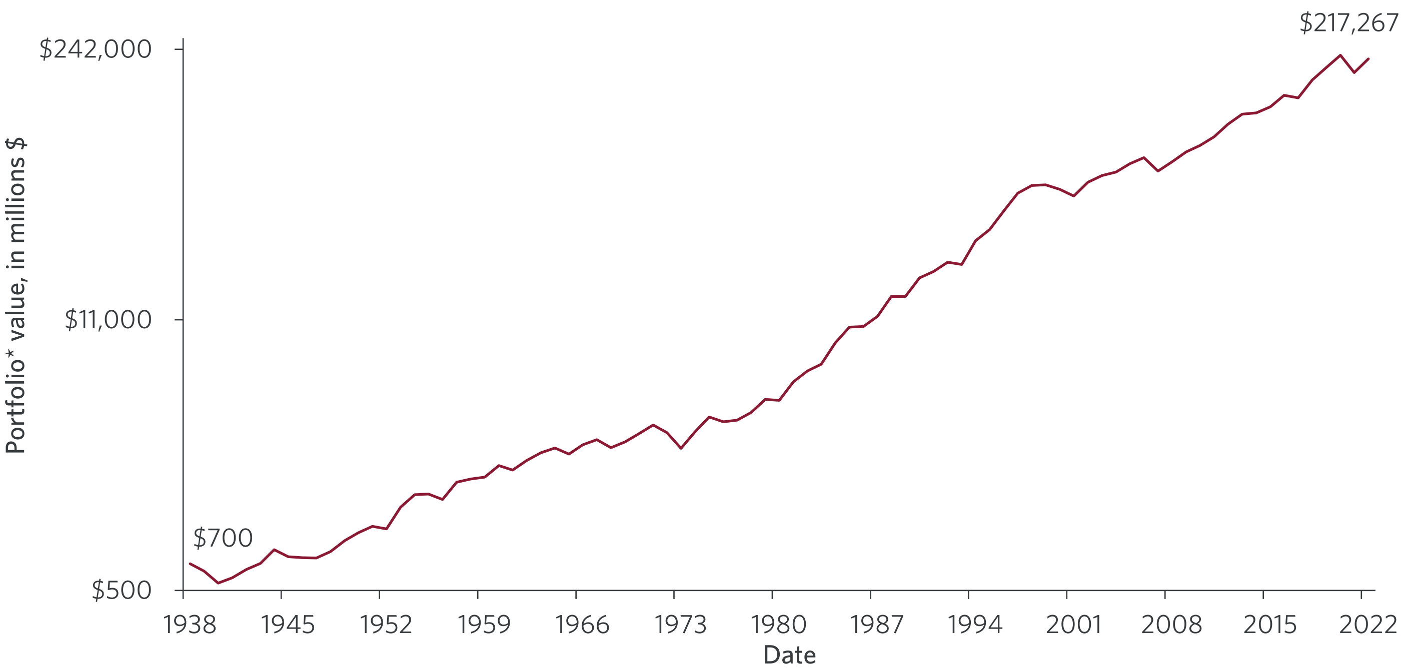


Source: eVestment; performance period: January 1, 2022 – December 31, 2022.

Stay diversified, stay invested to compound returns

To reinforce the virtues of a disciplined adherence to long-term strategic asset allocation, we find it useful to learn from others in history. John D. Rockefeller came from humble beginnings to become one of the wealthiest men of his time. At the time of his passing in 1937, his wealth was estimated at $1.4 billion. Assuming estate taxes of 50%, this would have left his estate with $700 million. Our growth of wealth chart (Figure 13) shows what would have happened if the family had invested in a portfolio of 60% S&P 500 Index and 40% US 10-Year Treasury Bonds in 1938, while withdrawing 4% of the initial total ($28 million) and adjusting this withdrawal by 2% annually to reflect inflation. The initial $28 million withdrawal would have grown to an annual withdrawal of $147.8 million by 2023 and total withdrawals over the 85-year period would be a combined $6.1 billion. More importantly, after accounting for withdrawals, the initial $700 million would have grown to an astonishing $217.3 billion by the end of 2023!

Figure 13: The power of staying invested, diversified and disciplined

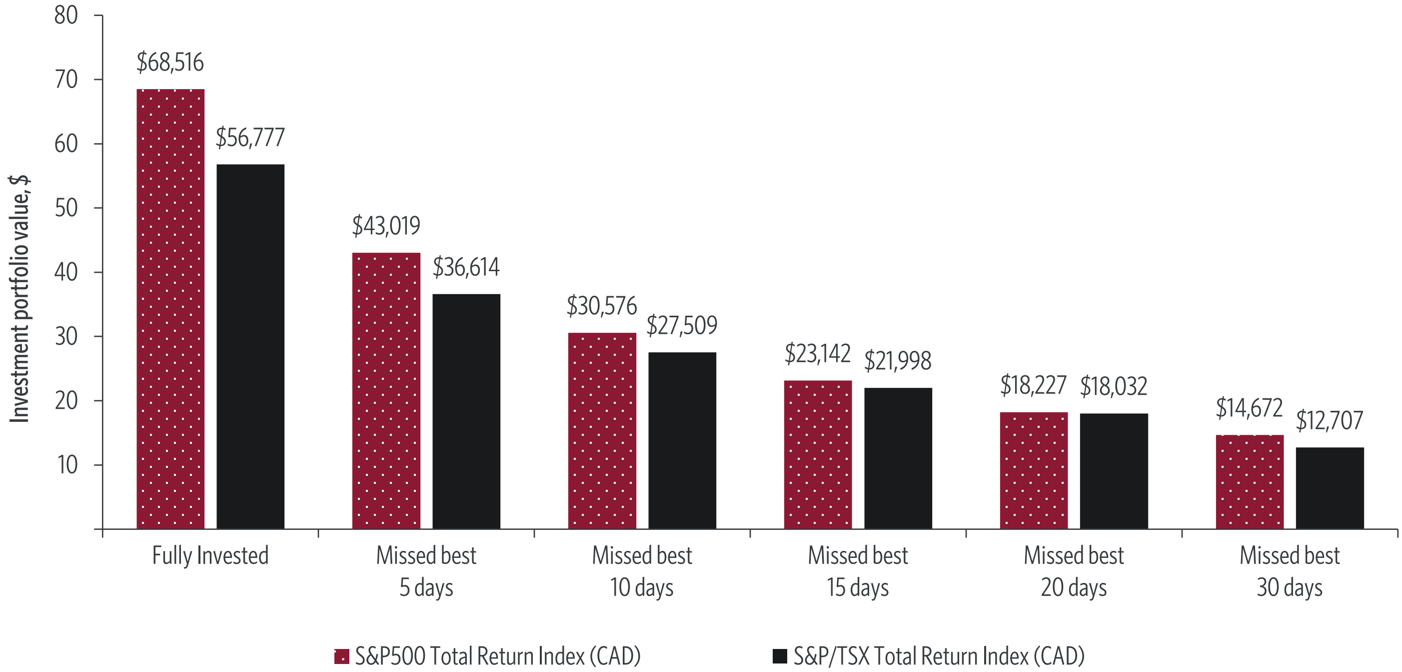


*60/40 portfolio comprises 60% S&P 500 Index, 40% 10-Year Constant Maturity Treasury Bond.
Source: https://pages.stern.nyu.edu/~adamodar/ as of December 31, 2022

For a variety of reasons, the Rockefeller family does not have $217.3 billion today. One factor might be market volatility, and the common behavioural finance desire to take more action than necessary to manage a portfolio. With 11 recessions, a World War, the end of the Gold Standard, the Cold War, a global pandemic and many other negative events over the 85-year period, there would always have seemed to be a reason to be more active than they should have been in managing the portfolio. This is precisely why a strategic asset allocation plan that is regularly, but objectively, reviewed is critical to help meet or exceed long-term investment goals. We must continue to find ways to avoid the temptation to make emotional decisions. As Figure 13 plainly shows, a long timeframe, with a fully invested and diversified portfolio, and most importantly discipline, is all that was needed to create truly extraordinary wealth.

Recommending a disciplined approach that sticks to the long-term plan should be the response to knee-jerk reactions to market gyrations. As Figure 14 shows, missing out on a very small number of days in the market can be very punishing to outcomes.

Figure 14: Impact of missing top market performance days since Jan 1st, 2000 (starting at $10,000)



Sources: CIBC Asset Management Inc. and Bloomberg, as of December 31, 2023.

CIBC Asset Management's approach to asset allocation

Establishing a strategic asset mix and finding fulfillment ideas provides portfolio guidance as a snapshot in time. However, these recommendations and allocations should be objectively reviewed regularly. We strongly encourage users of this paper to have a defined process that is adhered to around market and manager dynamics. Diversification, a well-researched belief set and an ongoing forum for reviewing developments are cornerstones of CIBC's approach to managing investment solutions.

We believe that risk can be reduced on an absolute basis by investing across a diverse number of securities, asset classes and investment styles. The full benefits of diversification can only be achieved if the underlying investments have diverse economic drivers, and investment approaches within the same asset class have reasonably diverse patterns of excess returns. Necessary to the above is an active approach: a deep understanding of broad asset class return patterns and their underlying economic rationale; rigorous investment manager research to understand a manager's source of skill and likely performance pattern; and a disciplined approach to regularly rebalance to maintain target weights.

We construct robust strategic asset allocations for the long term using traditional asset classes (domestic equities and bonds) as the cornerstone return and risk drivers of investment portfolios. We then combine these domestic asset classes with international equivalents, as well as diversifying alternative asset classes, to take advantage of a broad range of opportunities.

We have several fundamental beliefs related to strategic asset allocation. These include:

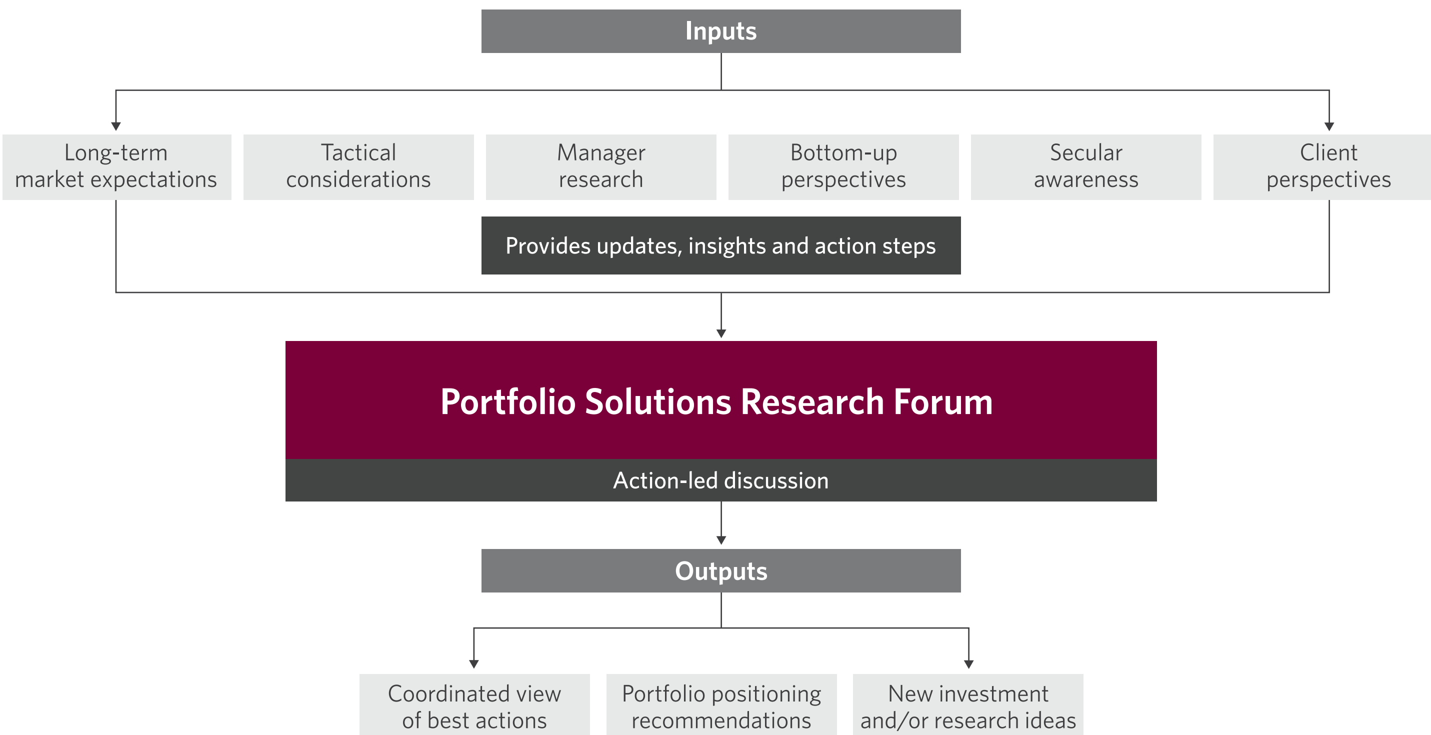
- Equities will continue to be the foundation of long-term wealth generation
- Bonds diversify and complement equity risk
- Investors are paid for accepting exposure to credit and liquidity risk
- An often-observed bias towards domestic assets must be thoughtfully measured in the context of diversification benefits from other assets and currencies

The equity risk premium (ERP), or exposure to the higher volatility of equities relative to cash and bonds, has historically been rewarded. This makes equities an integral building block of asset allocation. The addition of government bonds to the portfolio provides important diversification benefits through low average correlation to equities. Exposure to corporate bonds provides a quantum of diversification and another source of expected return via the credit risk premium (CRP). As with equity, this premium compensates investors for accepting additional risk above government bonds. Liquid and private market alternatives can also offer the potential for higher returns and income streams compared to traditional public market asset classes. They also improve diversification within balanced portfolios through lower correlations and a broader opportunity set.

Portfolio Solutions Research Forum (PSRF)[2]

The PSRF comprises members drawn from various teams across CIBC Asset Management to ensure diverse points of view in portfolio construction and manager research, fixed income, equity, currency and tactical asset allocation, and in the consideration of client perspectives. It meets monthly. PSRF views guide our organization and its partners with ongoing strategic asset allocation recommendations. The Forum also provides governance of the firm's Managed Solutions portfolios, coordinating views and insights that encompass the following areas:

- Long-term expected market return and volatility assumptions that represent a key input into our firm's strategic asset allocation (SAA) decisions and client advisory
- Strategic portfolio construction research
- Tactical asset allocation (TAA) that allows for relatively small and temporary adjustments in strategic portfolio allocations to enhance expected performance or minimize the risk of capital drawdowns
- Dynamic strategic asset allocation (DSAA) that allows for larger and more persistent adjustments to strategic asset allocations than is in scope for TAA based upon identified thematic opportunities and risks
- Bottom-up portfolio insights that inform asset allocation decisions
- Rigorous and extensive manager research that informs our asset allocation fulfillment choices
- Client perspectives that ensure the PSRF, as well as the wider firm, has a continuous and thorough understanding of our clients' goals and objectives to ensure we construct and evolve Managed Solutions portfolios in ways that maximize our ability to deliver desired performance



Managed Solutions Portfolio Oversight (MSPO)

The purpose of the MSPO is to provide ongoing portfolio management and oversight for Managed Solutions by reviewing performance, risk and positioning, as well as discussing ideas for implementation and specifics around fulfillment to enhance investment outcomes.

The MSPO Group is accountable for the following areas:

- Investment Excellence
  - Ongoing portfolio and exposures management
  - Performance and outcomes monitoring
  - Risk analysis and management
- Portfolio Recommendations
  - Performance enhancements through changes to portfolio structure or investment fulfillment
  - New asset class inclusions, which may involve new product launches
  - **Simplify** the complex investment world
  - **Provide comfort** for our clients, partners and shareholders
  - **Create value** for our clients, partners and shareholders

Conclusion

Rigorous strategic asset allocation, a long-term focus and diligent oversight are key ingredients for achieving portfolio performance consistent with the objectives of our clients. In this paper, we have described our approach to all three components.

As in previous editions of the LTSAA, we have provided recommended asset allocations for five indicative investor profiles. These profiles differ from one another in terms of return objectives and risk tolerance. Recommended allocations have been enhanced this year with an increase in equity exposure, and the inclusion of additional allocations to alternatives, where appropriate. These enhancements are expected to improve portfolio diversification and result in stronger risk-adjusted long-term performance.

We also described process enhancements. The PSRF is the focal point of firm-wide initiatives on portfolio construction and solutioning and has investment oversight responsibility for CIBC Asset Management's approximately $80 billion Managed Solutions program. The practical lens we take, given these responsibilities, ensures that asset allocation is not a one-time project for us, but rather an ongoing investment process.

A core focus of the PSRF is an emphasis on nurturing the solutioning mindset that lies at the center of our firm's efforts to broaden and deepen partnerships with our clients. This mindset includes the provision of thoughtful advice and support tailored to partner-specific needs, a commitment to best-in-class investment research and thought leadership, and a relentless pursuit of improving client outcomes. Armed with this problem-solving approach, CIBC Asset Management continues to work relentlessly to earn the role of essential partner and trusted advisor in the creation of solutions that consistently deliver value towards our clients' evolving needs.

Appendices

Asset class purpose table

<table>
<tr><th>Asset class</th><th>10-year expected return (annualized)</th><th>Expected volatility</th><th>Purpose in long-term strategic asset allocation</th><th>Near-term outlook</th></tr>
<tr><td>Canadian short-term fixed income</td><td>3.0%</td><td>1.3%</td><td rowspan="3">Publicly traded investment grade bonds issued by domestic or foreign governments and corporations provide stable income and expected returns, including interest rate carry (yields), capital gains and roll yield.
Bonds are an important source of portfolio capital preservation, allowing investors to target higher returns in other parts of their portfolio. Bond returns are also less volatile than publicly traded equities and therefore more predictable. This attribute is valued by investors with income needs, particularly in periods of heightened market volatility. Returns also exhibit low, and sometimes negative, correlation to public equity returns, providing an important source of portfolio diversification. Bonds also offer higher liquidity than most asset classes, which can help with portfolio rebalancing.</td><td rowspan="2">Neutral: Canadian government bond yields are expected to remain range-bound in coming months. The economy appears to have bottomed, with some signs of nascent recovery. Concurrently, inflation has eased, although wage costs and house price inflation will challenge the ability of the Bank of Canada to ease aggressively.</td></tr>
<tr><td>Canadian fixed income</td><td>3.5%</td><td>5.2%</td></tr>
<tr><td>Global fixed income (Hedged to CAD)</td><td>3.0%</td><td>4.2%</td><td>Cautious and selective: Outside of the resilient US, global economic activity appears to have passed its low point. In Europe, inflation is also moderating, suggesting the European Central Bank will likely move its policy rate lower through the second half of 2024 concurrent to policy easing in the US. By contrast, the Bank of Japan recently raised its policy rate for the first time in seventeen years as it seeks to normalize policy in the context of its continued efforts to generate sustained inflation in the Japanese economy. The net of these conflicting policy trends is that global bonds currently offer a small positive carry on a hedged yield basis and appear more attractive from a valuation perspective.</td></tr>
<tr><td>High yield and floating rate debt</td><td>4.5%</td><td>7.1%</td><td>High-yield bonds exhibit both debt and equity characteristics while offering enhanced expected yield and return.
Investors earn an additional credit spread versus investment-grade issuers to compensate for accepting exposure to additional risks associated with this asset class. These include higher default risk. High-yield bonds provide diversification to core fixed income and public equity allocations within a multi-asset portfolio. They also exhibit lower duration risk than sovereign debt and are therefore less sensitive to rising interest rates.
Floating-rate debt provides a similar credit risk profile to high- yield bonds and encompasses instruments with a relatively high fixed credit spread and a variable interest rate component.
The variable component is reset on a scheduled and frequent basis based on market rates, which provides protection in an environment of rising interest rates. They enhance expected portfolio performance by diversifying traditional investment-grade fixed income and public equity exposures.</td><td>Cautious: High-yield spreads have tightened to levels not seen since the early 2000's. This tightening has been justified in hindsight by the resilience of US economic activity. While spreads could remain this tight for an extended period, as was the experience in the early 2000s, non-investment grade bonds are vulnerable to a subsequent widening if the economic outlook disappoints the market's bullish expectations later in 2024.
Floating-rate debt has continued to perform strongly, contrary to expectations. With major central banks expected to begin easing policy stance, this positive relative performance may fade as the attractiveness of extending duration into longer-dated fixed rate debt increases.
On a longer-term basis, high-yield and floating-rate debt offer attractive expected return and risk profiles that diversify one another, reflecting differences in the characteristics of typical borrowers in each market. They also allow investors to diversify other allocations within fixed income.</td></tr>
</table>

<table>
<thead>
<tr><th>Asset class</th><th>10-year expected return (annualized)</th><th>Expected volatility</th><th>Purpose in long-term strategic asset allocation</th><th>Near-term outlook</th></tr>
</thead>
<tbody>
<tr><td>Emerging Market (EM) bonds</td><td>7.2%</td><td>7.7%</td><td>EM debt encompasses local and hard currency (typically USD) debt issued by governments and locally domiciled firms.
In exchange for accepting exposure to the additional risks inherent in this asset class, including idiosyncratic economic, political and liquidity risks associated with individual EM countries, investors are rewarded with enhanced expected returns through higher yields and exposure to stronger longer-term growth than core fixed income, with lower volatility than EM equities. Geographic diversification may also help to enhance returns.
EM debt also offers diversification benefits due to relatively low correlations within the asset class and with other asset classes.
Emerging market countries are not a homogeneous bloc. As with all asset classes, it is important to rigorously evaluate individual investment opportunities to ensure accepting exposure to inherent risks will be rewarded with an adequate expected return.</td><td>Cautious: near-term global recession risks present challenges to emerging-market (EM) assets, suggesting a cautious stance for the time being.
Longer-term, we are positive. Many EM central banks began to increase policy interest rates well before developed-market (DM) policy makers. EM policy tightening is now coming to an end and has left yields at elevated levels. Other economic fundamentals—including import reserve coverage, current account balances, and debt/GDP ratios—have also all improved relative to DM countries, further enhancing EM country broad macro policy credibility, and EM debt's long-term attractiveness. And an expected multi-year USD depreciation is expected to provide an additional source of expected return.</td></tr>
<tr><td>International equity</td><td>7.2%</td><td>12.0%</td><td rowspan="3">Public equities, or common stocks of corporations listed and traded on public stock exchanges, have historically been the cornerstone of investment portfolios, producing the bulk of capital wealth creation.
Shareholders benefit from the growth of corporate profits, and via dividends and capital gains.
We expect public equities to continue to contribute the bulk of capital wealth creation, but this contribution is only maximized when investors stay invested for the long term.</td><td rowspan="2">Negative international, neutral US: International equities have fared relatively well in recent months. Corporate profits in Europe have been more resilient than expected in the context of a weak economy. As such, the potential for further positive performance is limited in relative terms. Japan offers a more constructive outlook based on structural reforms being implemented to improve its corporate competitiveness. But with the Nikkei being up over 50% since early 2023, a lot is already in the price.
For US equity valuation, there is a near-term headwind. This is countered by continued resilient economic growth. The recent dominance of the technology sector in market performance is high, but not unprecedented. It has been driven largely by higher valuations and the focus will now be on earnings and fundamentals to show more material improvement.
Over the long-term, we are relatively constructive and expect a similar return from all major markets over the next 10 years in local currency terms. For the US, this view is partly informed by the strong investment tailwinds related to geopolitical risks, strong tech demand, the energy transition, and elevated infrastructure needs. These tailwinds suggest higher trend growth and corporate earnings in the US relative to several other Developed markets.</td></tr>
<tr><td>US equity</td><td>5.8%</td><td>12.3%</td></tr>
<tr><td>Canadian equity</td><td>6.7%</td><td>12.8%</td><td>Cautiously constructive: Valuation looks more attractive following underperformance in the last two years. This sets the stage for a period of catch-up performance as economic activity recovers from the recent slowdown.</td></tr>
</tbody>
</table>

Asset class	10-year expected return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
EM equity	8.8%	13.3%	EM equity provides access to countries and regions undergoing economic transition, with the potential for sustained strong growth in corporate earnings and country per capita incomes. They are a source of enhanced and diversifying expected return relative to DM equity indices. This expected outcome occurs because of geographic diversification. Emerging markets are relatively inefficient. This reflects their relative lack of participant investors. Market inefficiencies provide a persistent opportunity for skilled active investors to achieve outsized returns versus a passive index.	**Constructive:** Valuations look attractive in several markets following underperformance in the last two years. This sets the stage for a period of catch-up performance as economic activity recovers from the recent slowdown. Investment tailwinds related to geopolitical risks, strong tech demand and the energy transition suggest higher trend growth and corporate earnings. This constructive view does not extend to China. A substantial output gap, with demand growth too weak to absorb existing supply, and increasingly intractable structural issues in housing and local government indebtedness suggest underperformance by this market on average. The central government is limited in its ability to reboot the domestic economy, and much of the cyclical economic benefit from the stimulus it does introduce will accrue to other countries in Asia outside China.
Liquid alternatives (Fixed Income) **Liquid alternatives (Equity)**	8.2%	8.0%	These strategies offer low volatility, high liquidity, and attractive expected returns through a combination of smart beta and idiosyncratic alpha. They are also expected to provide diversification due to low average correlations with core public equity and fixed income allocations.	**Positive:** The outlook for liquid alternatives, particularly within the long/short equity market neutral sector, remains promising as these strategies are designed to navigate and thrive in varied market environments. By balancing exposures between fundamental growth and value opportunities, these strategies offer a nuanced approach to risk management and potential returns. While other areas such as event-driven, relative value, and quantitative strategies contribute to the diversity and resilience of liquid alternatives, the focus on market neutral strategies underscores a strategic alignment with current market dynamics. This approach anticipates steady performance, leveraging intra-market relationships to secure gains while minimizing market exposure.

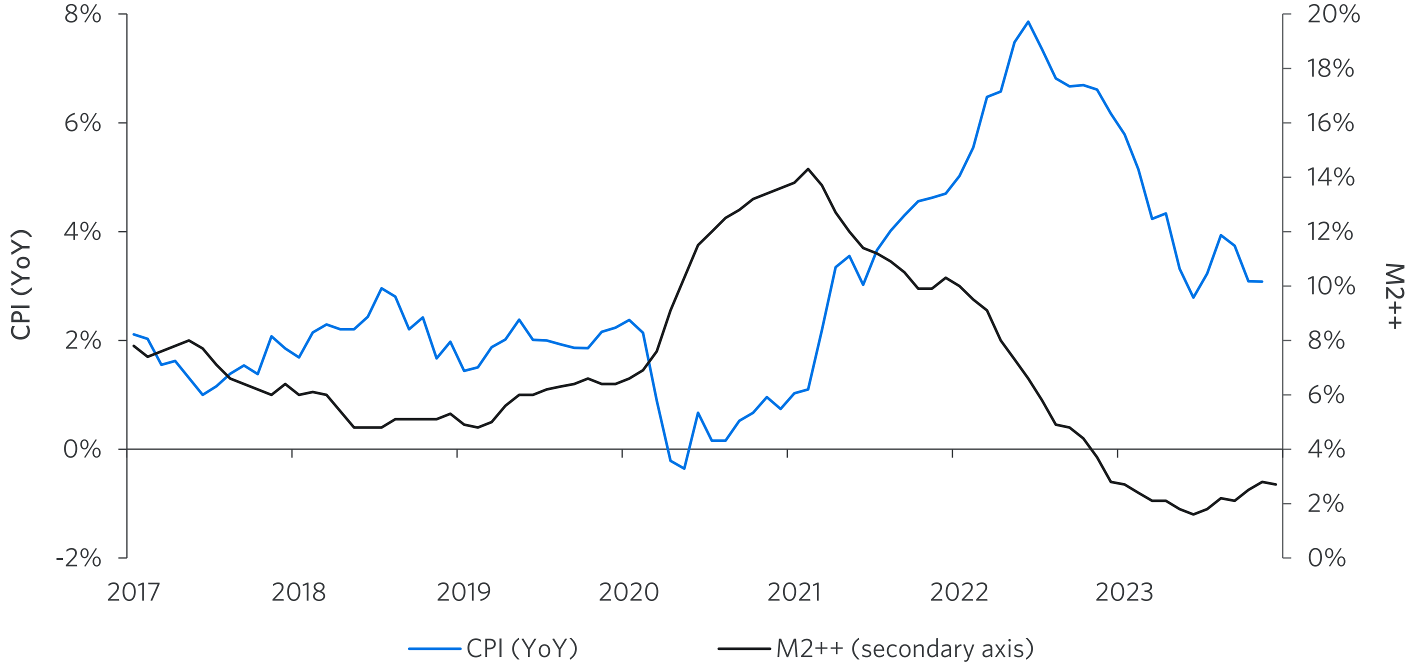
Asset class	10-year expected return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
Global infrastructure	6.9%	12.9%	Global infrastructure and real estate provide steady income streams from strategies that emphasize the quality of assets. They also often offer a better ability to hedge inflation risks than traditional asset classes, as rent and toll resets occur frequently. In infrastructure, this often happens through a contractual link to inflation. Infrastructure and real estate can also offer the potential to augment expected returns by moving beyond core assets and accepting development risk, including in EM countries.	**Positive:** Infrastructure investments remain attractive in the current inflationary climate, bolstered by their inherent stability and growth opportunities in digital areas like 5G, fibre optics and data centers. These sectors benefit from contractual inflation adjustments and are less impacted by consumer spending fluctuations. While easing supply chain constraints offer potential advantages, political, regulatory and commercial risks pose significant challenges. Natural resources, especially oil and gas, face underinvestment and geopolitical uncertainties. The emphasis is on renewable energy and digital transformation, highlighting the need for strategic balance amidst evolving regulatory environments. Investors are encouraged to navigate these dynamics, leveraging long-term trends in energy transition and digitalization, amidst the broader landscape of infrastructure and natural resources investment opportunities.
Private real estate	6.3%	7.9%	Global infrastructure and real estate provide steady income streams from strategies that emphasize the quality of assets. They also often offer a better ability to hedge inflation risks than traditional asset classes, as rent and toll resets occur frequently. In infrastructure, this often happens through a contractual link to inflation. Infrastructure and real estate can also offer the potential to augment expected returns by moving beyond core assets and accepting development risk, including in EM countries.	**Cautious and selective:** In a real estate market facing cap rate pressures and cyclical economic risks, opportunistic strategies alongside core and non-core allocations are key. 2023's real estate investment returns were significantly challenged, marking a notable decline across US and European core markets. However, the market is showing signs of recovery, especially in public valuations, suggesting a potential easing in private real estate valuations early in 2024. Despite challenges, there are bright spots, particularly in the industrial and multifamily sectors, which have shown resilience and growth due to remote work trends and supply constraints. Retail and office spaces continue to adjust to post-COVID realities, with particular pressure on older office assets facing refinancing risks. Flexibility in work arrangements and selective investment in resilient sub-sectors will differentiate successful strategies. Investors are advised to be cautious with opportunistic real estate strategies, focusing instead on diversified investments that can adapt to shifting market dynamics.

Asset class	10-year expected return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
Private credit	7.1%	5.1%	Private credit (or debt) refers to loans originated by private lenders, often without the use of a bank or other financial intermediary. It spans an eclectic array of corporate, real estate, structured and infrastructure debt. This asset class offers attractive yields and risk-adjusted expected returns. Diversification is also available given the eclectic mix of sectors and structures relative to traditional fixed income. Private loans are rarely traded. This illiquidity reduces sensitivity to the economic cycle and is one source of enhanced expected yields, return and diversification offered by private credit compared with public market fixed income. Other sources include smaller issuer size, lack of issuer credit rating and the use of leverage.	**Positive:** In a landscape marked by market volatility and high interest rates, the appeal of private credit, particularly in the senior direct lending space with secured first-lien positions, remains significant. The diversified exposure across various opportunities and strategies in private credit highlights a strategic focus on minimizing risk while navigating the current economic climate. Furthermore, the resilience and adaptability demonstrated in navigating challenges such as regional bank stresses and regulatory changes underscore the strength of this asset class. Specifically, the direct lending and distressed/special situations sectors exhibit substantial variability in returns, emphasizing the importance of selective manager and deal choices. Looking ahead, the continued positive performance in private credit, despite slight declines in real estate debt due to office market pressures, suggests a landscape ripe with opportunities for discerning investors. The strategic allocation to private credit, especially in strategies that capitalize on current market dynamics, is poised to offer a blend of stability and growth potential, making it a compelling choice for portfolio diversification and risk-adjusted returns.
Private equity	8.9%	9.4%	Private equity refers to capital investments in companies that are not publicly traded or listed on a public stock exchange. Investments range from the financing of start-up entities to providing growth equity to an expanding private company. Private equity funds also often purchase – or buy out – public companies subsequently delisted from public exchanges and taken private using debt financing. Private equity fund managers actively seek to improve the expected profitability of the acquired company by implementing various forms of corporate restructuring. Value is monetized through initial public offering (IPO), reorganization or divestment of various parts of the entity, or sale to another private equity fund, known as a secondary buyout. The asset class offers the prospect of enhanced expected returns relative to public equity through value-added investments that take advantage of market dislocations and unique business opportunities. It also provides diversification due to a low reported correlation to public markets that results from infrequent marking-to-market of fund NAVs.	**Positive and selective:** In the current environment, private equity is adjusting its strategies to remain resilient. The heightened interest rates, a stark shift from the prolonged low-rate period, necessitate a keen focus on operational efficiencies and rigorous manager selection to effectively navigate potential recession risks and the tighter credit landscape. Despite these headwinds, 2024 shows promising signs with North American and European private equity funds experiencing a rebound, indicating a positive shift from the previous year's performance challenges. This resilience is underpinned by strategic adaptions, including prioritizing operational improvements and exploring opportunities in take-privates, carve-outs and structured deals. These strategies highlight private equity's potential to generate value and achieve meaningful outcomes, even amidst the complexities posed by the current economic climate. Best practice includes a focus on portfolio-level talent management, revenue and EBITDA margin growth, while factoring the impact of the expected recession on sales, expenses and industry risks.

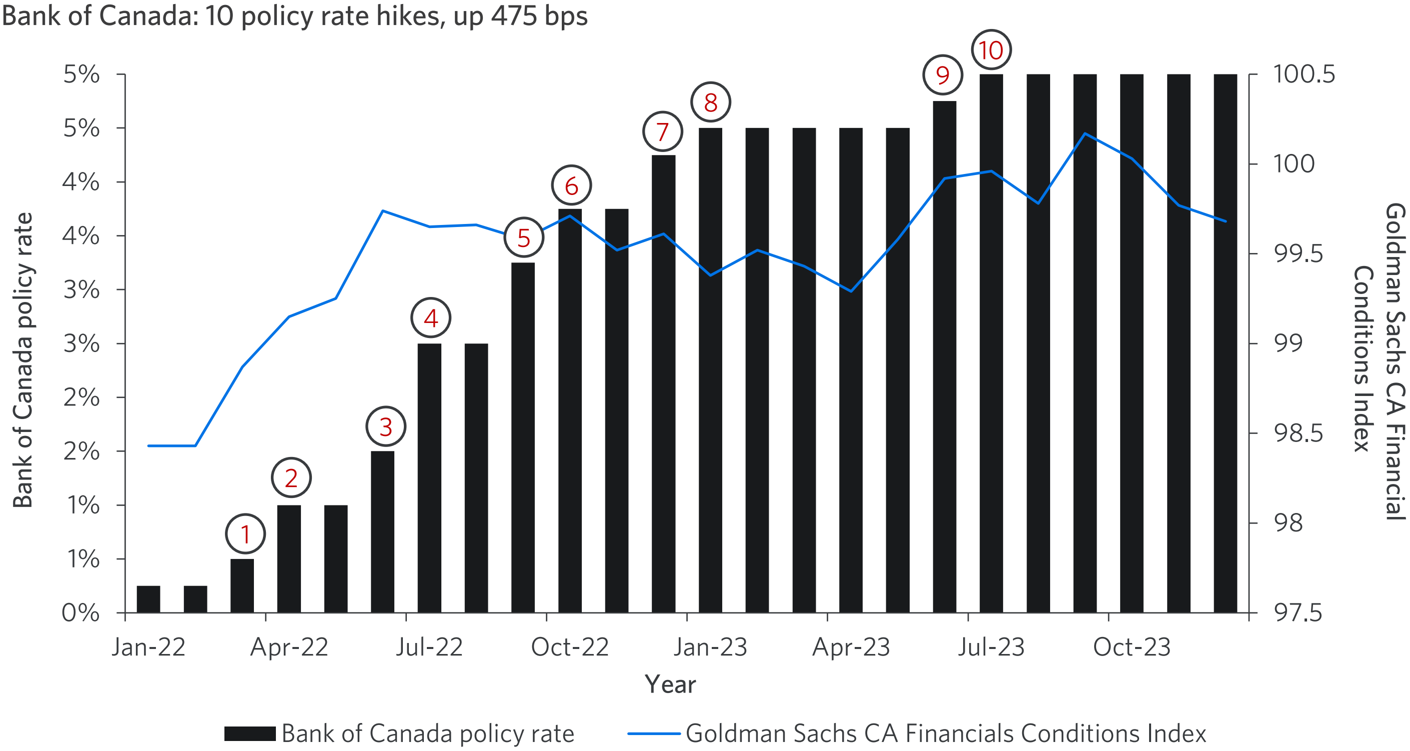
Capital markets review

In Canada

Inflation reached 1970s levels; Year-over-Year money supply (M2++)3 declined but inflation remains sticky

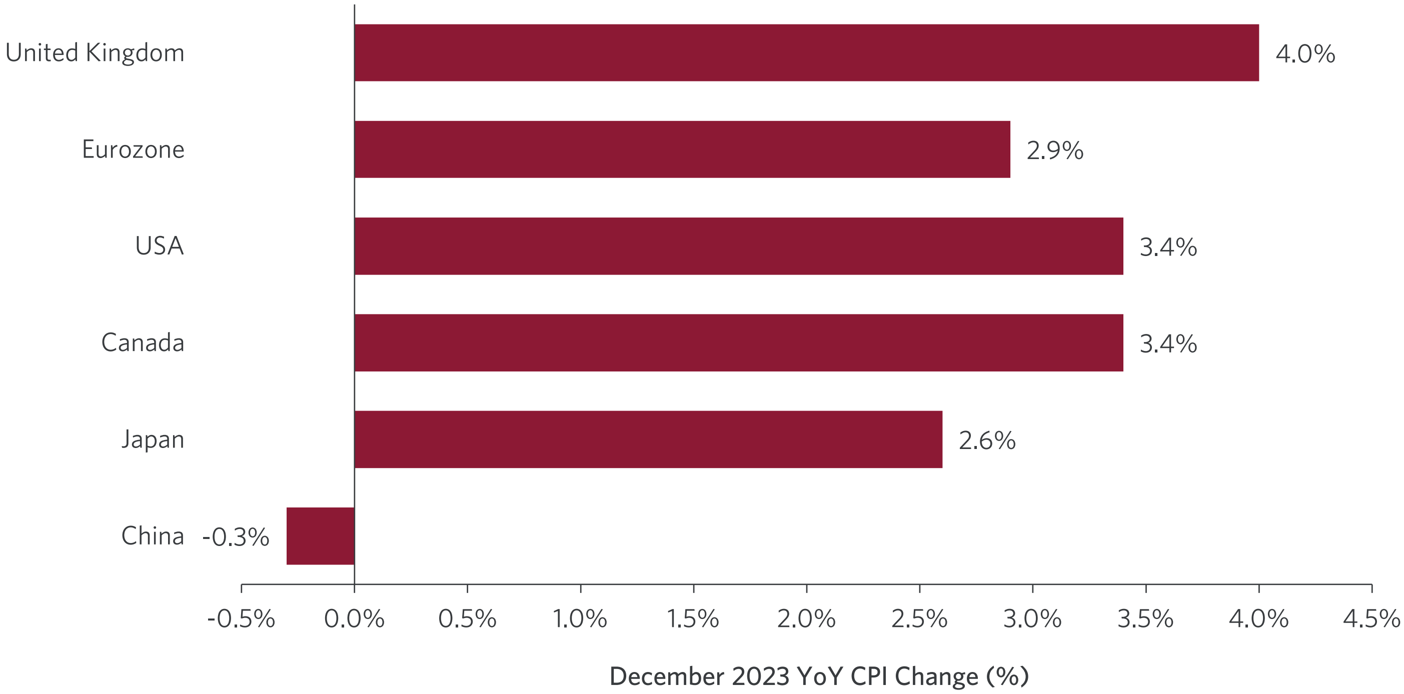


Bank of Canada: 10 policy rate hikes, up 475 bps

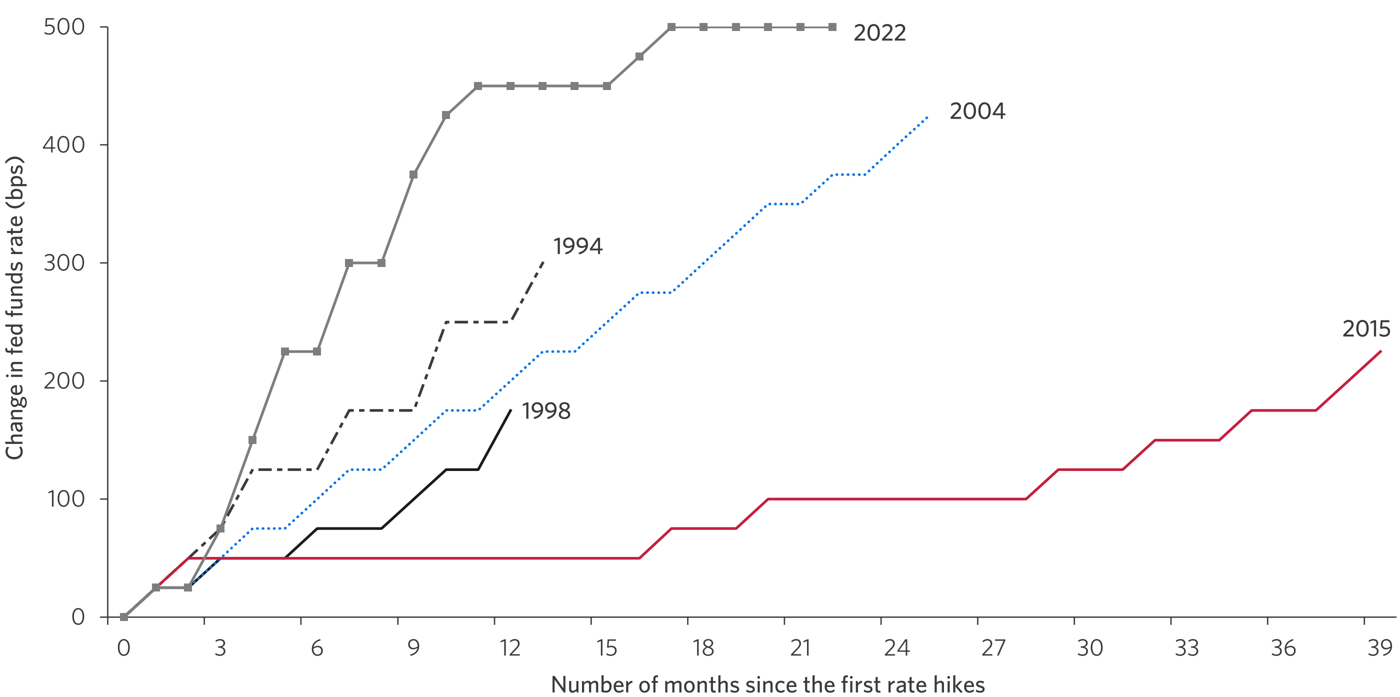


Internationally

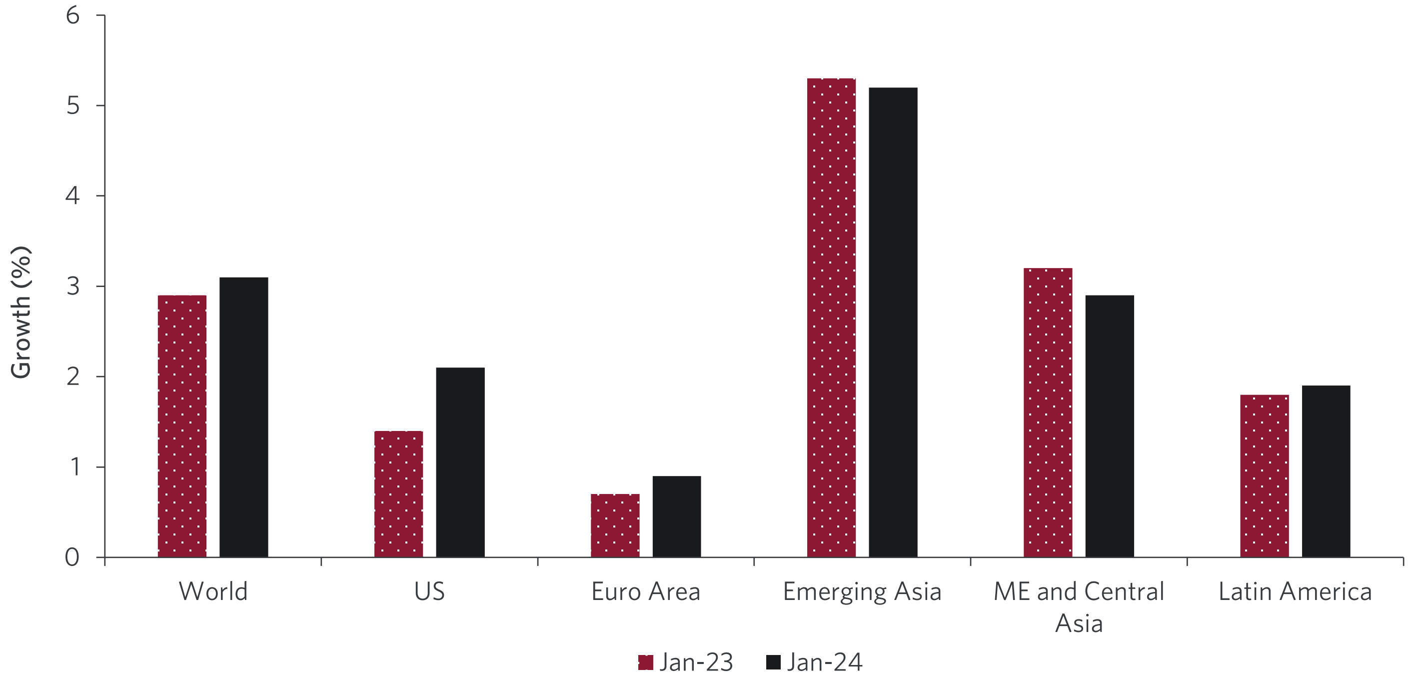
In 2023, inflation has dropped but was still high across developed markets



Record pace of US federal policy rate increases

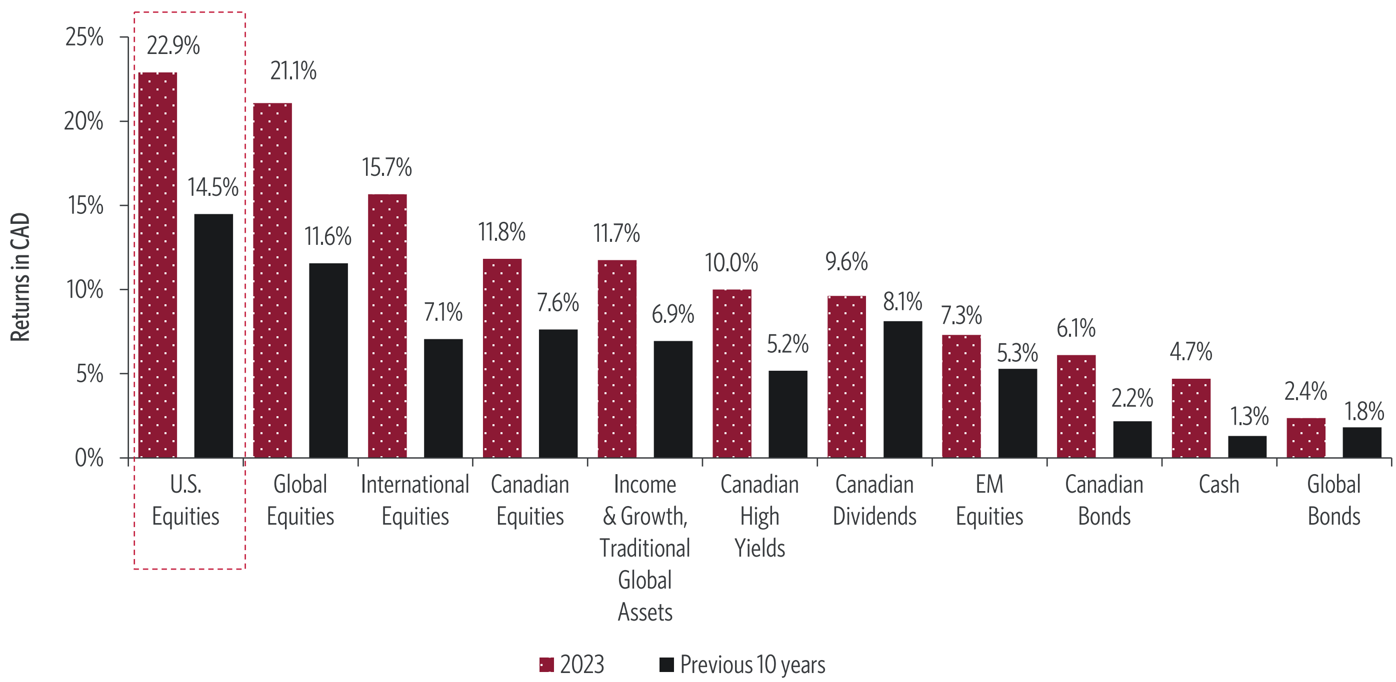


Upwards revisions to International Monetary Fund (IMF) growth projections for 2024

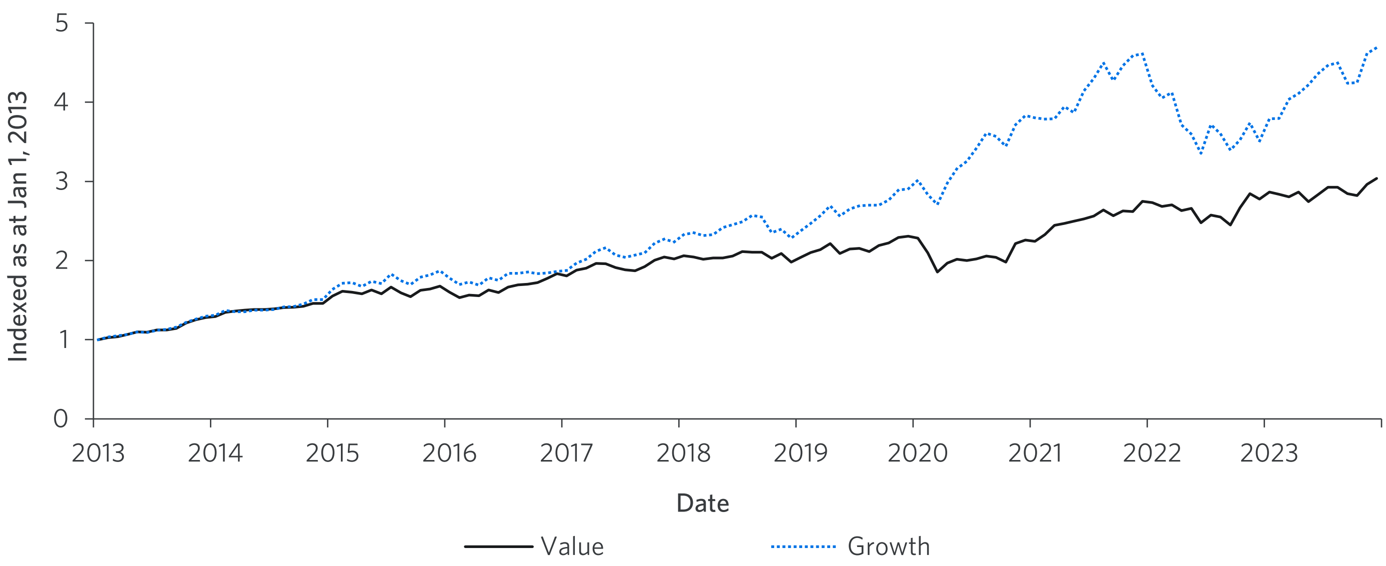


In markets

The bulk of return stems from equities



Growth stocks underperformed and gave back most of their outperformance vs. value stocks



US and international managers generally did not do well in 2023

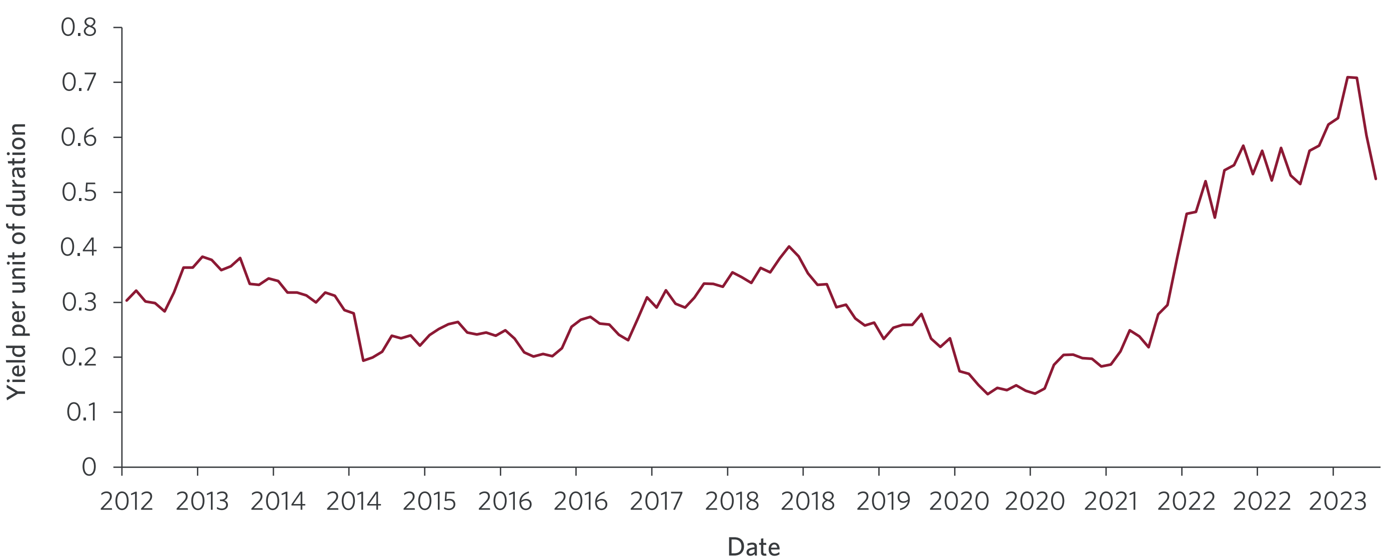
2023 Equity funds: % of active managers ahead of benchmark

58%
Canada

29%
USA

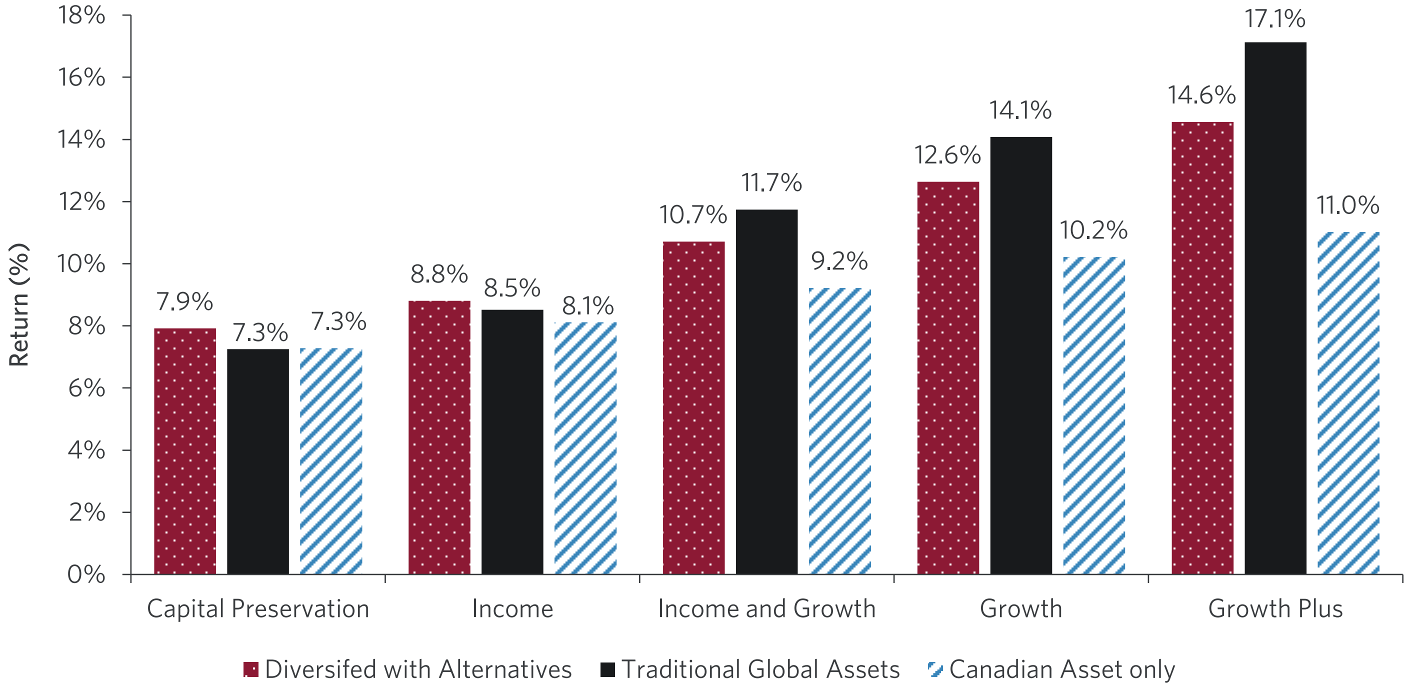
32%
ACWI ex USA

Canadian aggregate bonds are attractive relative to history



Sources: CIBC Asset Management, Bloomberg, Bank of Canada, Refinitiv-Datastream, The Federal Reserve System, eVestment, International Monetary Fund, Barclays. The Global Income & Growth Profile performance is based on the asset allocations in the 2022 Long-term strategic asset allocation paper, which can be found here in English and French. The active manager success rates are calculated based on benchmark relative performance where the benchmarks used are: S&P 500 Index for the US Large Cap Core Equity; eVestment universe, S&P/TSX Composite Index for the Canada Large Cap Core Equity eVestment universe, MSCI ACWI ex US Index for the ACWI ex USA Large Cap Core Equity eVestment Universe. Calculations based on data available as December 31, 2023. IMF projections as of January 31, 2024.

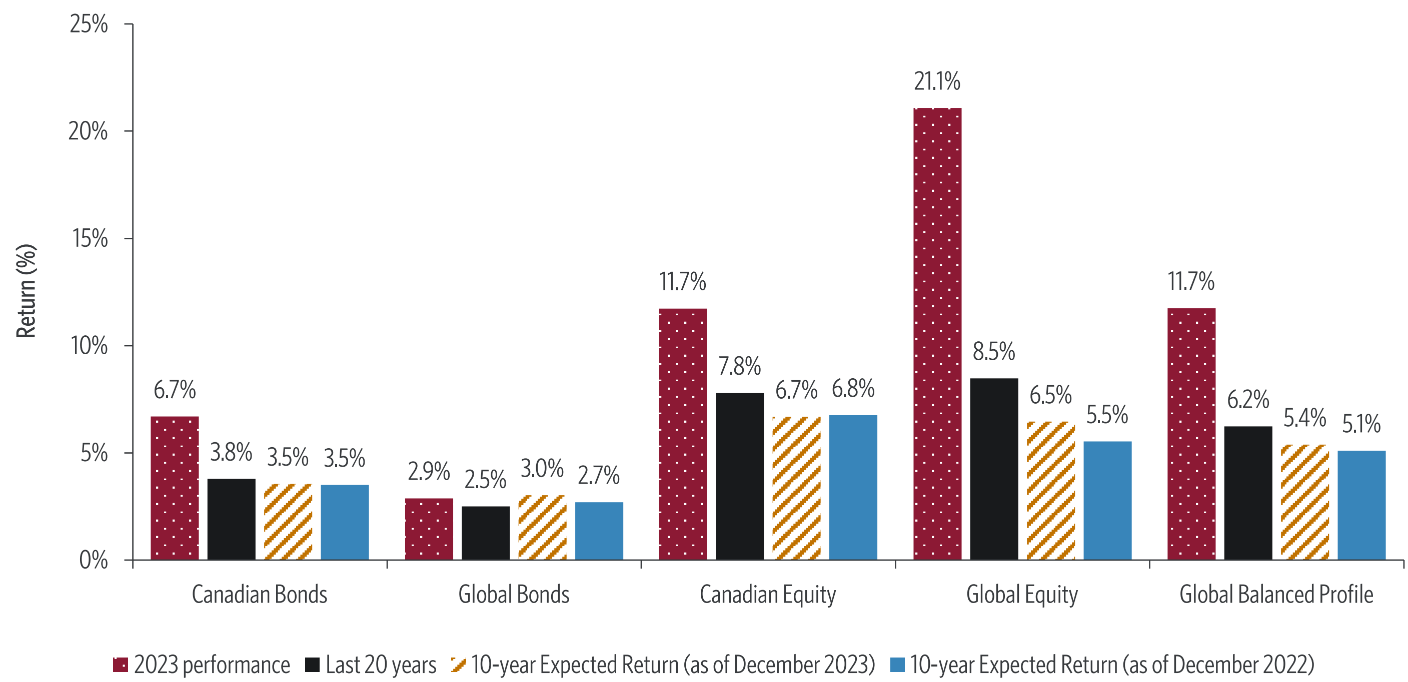
2023 LTSAA investor profile performance



Source: CIBC Asset Management, Inc., Bloomberg. Performance period : Jan 1, 2023 – Dec 31, 2023.

In 2023, all five investment profile portfolios provided robust absolute returns. Canadian-only portfolios outperformed within more conservative profiles as Canadian fixed income outperformed global fixed income. Traditional Global Assets Portfolio outperformed for more aggressive profiles, as Global Equity (led by US Equity) enjoyed a phenomenal year.

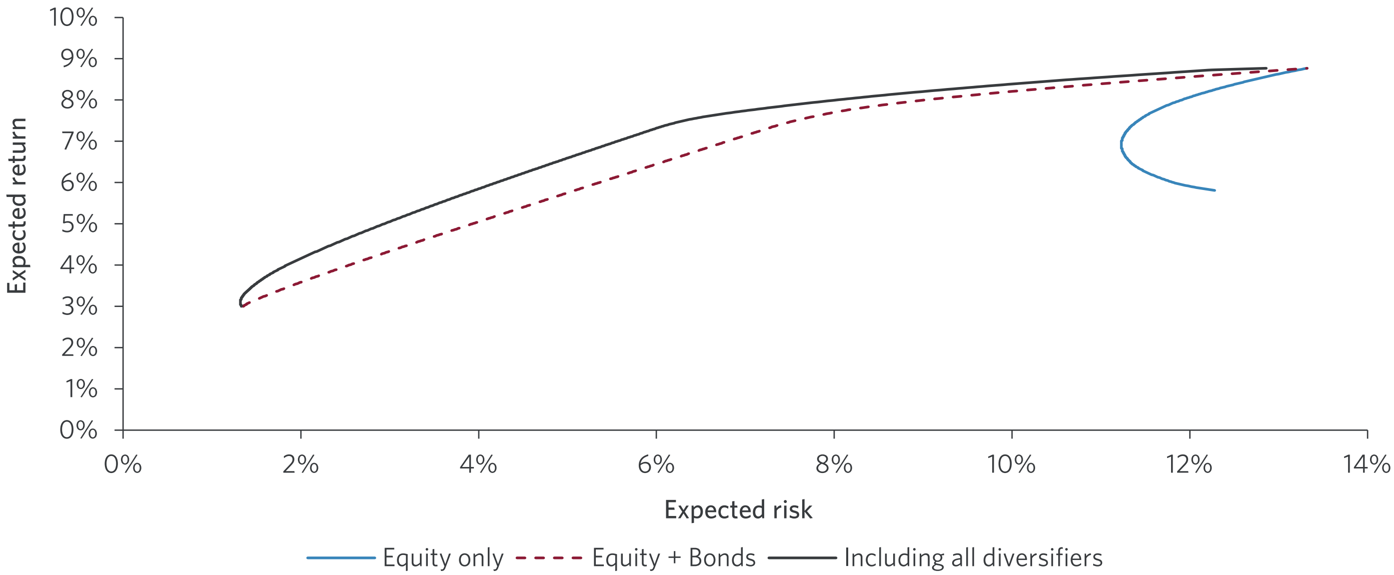
Hypothetical 10-year expected nominal returns remained low relative to history but continued to improve during 2023



Source: CIBC Asset Management Inc., Bloomberg. Data as at December 31, 2023.
As the Global Bonds recommendation in LTSAA prior to 2023 was unhedged, the 2023 performance and 10-year expected return (as of December 2022) in the chart reflects the data for unhedged global bonds, while the 10-year expected return (as of December 2023) reflects the data for global bonds hedged to CAD. This hypothetical scenario is shown for illustrative purposes only and is not indicative of future results. Please refer to the Disclaimer page for further information.

Combining assets using thoughtful strategic asset allocation enhances expected portfolio outcomes

Efficient frontier (2024 10-year forward-looking estimates)



Source: CIBC Asset Management Inc., Bloomberg. Data as at December 31, 2023.
A constraint of 10% maximum per alternative asset class (global infrastructure, liquid alternatives, private equity, private credit, private real estate) applies to the "Including all diversifiers" frontier.

Risk analysis of investor profiles

Investor goals and risk tolerance, time horizon, income needs, liquidity preference, tax considerations, unique circumstances and attitude toward global investing are all relevant variables to be considered in determining an appropriate investment profile. Importantly, an assessment of risk tolerance should not be based on the last 12 months of performance and volatility, but instead on longer periods that better coincide with the investor's effective investment horizon. Investors need to be comfortable with the volatility of their asset allocation in all potential market conditions that may arise through a full market cycle.

While long-term history provides a reasonable estimate of base probabilities and observed ranges, secular changes can impact long-term forecasts. Given that the current economic and market environment has implications for expected returns, we also incorporate forward-looking estimates into our assessment of risk tolerance.

In this section, we present a risk analysis framework to assist in identifying appropriate risk profiles given investors' goals and risk tolerance. ***This analysis is based on the 2023 recommended asset allocation for global traditional asset portfolios given their long track record of benchmark proxy indices.***[4]

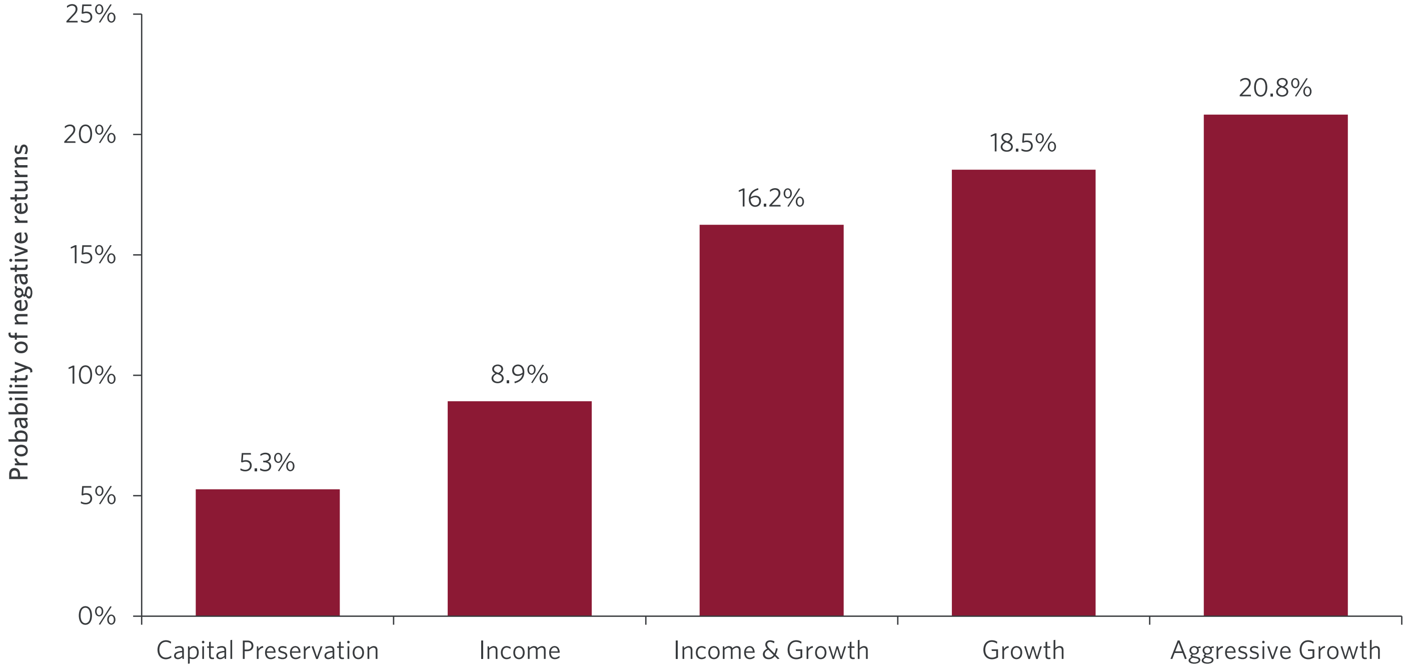
Risk suitability

The search for the optimal strategic allocation for each investor profile begins with an analysis of risks and expected returns. These should be considered in tandem, as each provides an essential piece of the asset allocation puzzle. All risks embedded into a portfolio must be rewarded with an attractive expected return and be consistent with an investor's tolerance.

Our five investor profiles exhibit incrementally higher historical expected returns along with increased volatility, as shown below. Over the long term, equities have outperformed bonds, and bonds have outperformed cash. Outperformance comes with higher risk, as measured by the volatility, or standard deviation, of returns; accepting exposure to more risk has been rewarded by higher returns.

Investors who accept more volatility will likely also be exposed to a greater probability of periodically experiencing negative returns, as shown by the table below. As discussed above, higher expected returns also compensate investors for accepting exposure to this risk.

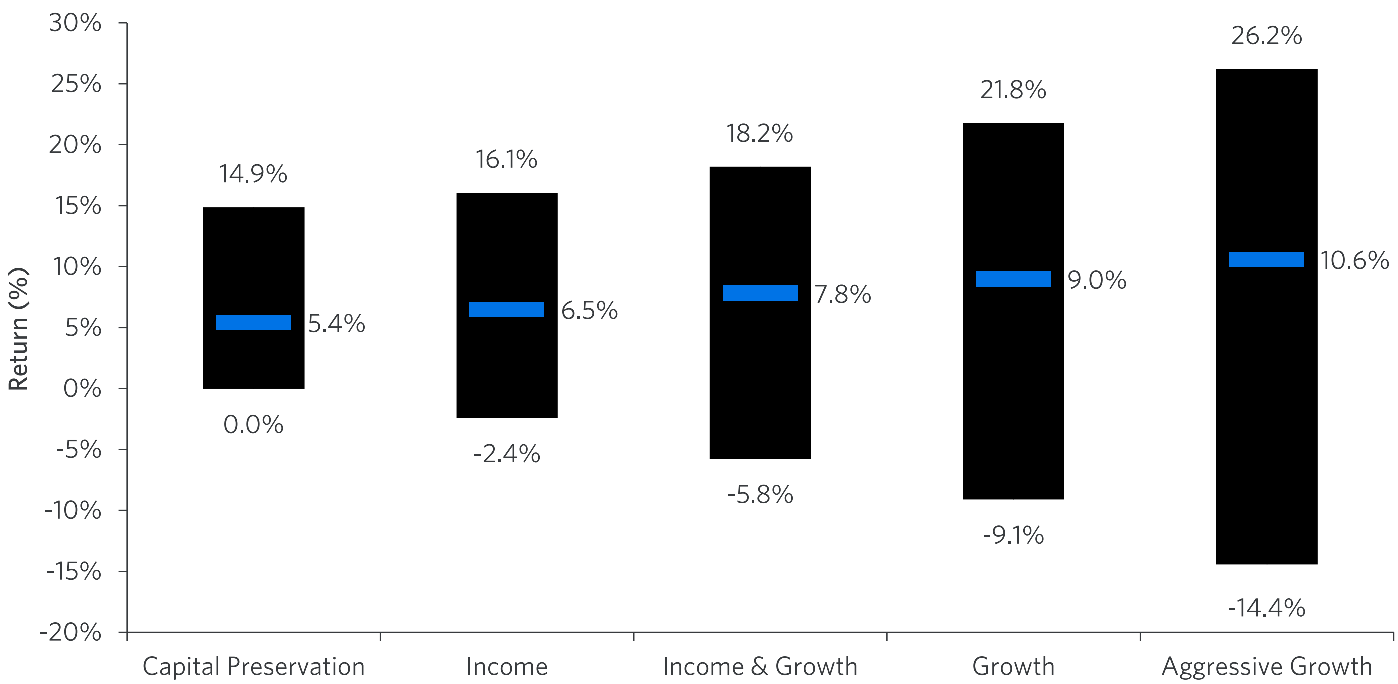
Probability of negative annual returns in one-year rolling periods (September 1986 to December 2023)



Source: CIBC Asset Management Inc., Bloomberg, as at December 31, 2023.

Consistent with our assumptions, investors have been compensated for accepting exposure to higher risk over the long term. The table below reports the 5th, 50th and 95th annual return percentiles for our five investor profiles from September 1986 through December 2023. While higher volatility has been synonymous with a wider range of realized annual returns as we move from the lowest to the highest risk profile, the median historical annual return of the highest risk profile (Growth Plus) at 10.6% was almost double that of the lowest risk profile (Capital Preservation) at 5.4%.

5th, 50th and 95th annual return percentiles (September 1986 to December 2023)

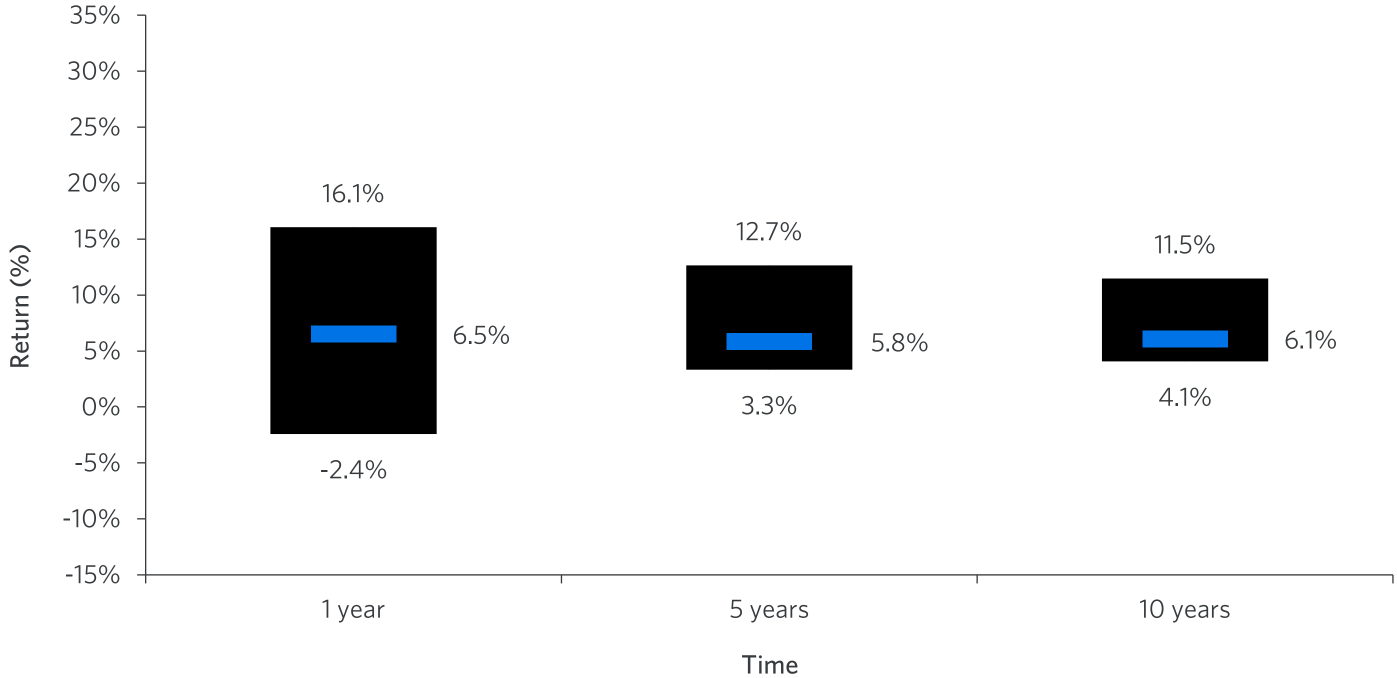


Source: CIBC Asset Management Inc., Bloomberg, as at December 31, 2023.

Investment time horizon

In any short-term period, investors may face higher volatility and a heightened risk of negative returns. This should not be a deterrent to thoughtful long-term investing. For each of our investor profiles, volatility tends to decrease in the long run and realized returns tend to lie in an increasingly narrow band around their long-term average. Supported by these data, investors should establish a link between time horizon and their risk profile. For example, investors with an investment horizon of less than five years may be most comfortable investing in the income portfolio.

5th, 50th & 95th annualized return percentile over time (September 1986 to December 2023)



Source: CIBC Asset Management Inc., Bloomberg, as at December 31, 2023.

Many risk-averse investors believe that cash is a safer investment than the income portfolio in any given five-year period. This may not be the case, particularly when considering historical probabilities and opportunity costs (upside volatility).

The historical annualized return of Canadian money market was 4.0% over the past 37 years. But in recent years, this return has been much less attractive; it was just 1.2% for the period of January 2009 to December 2023. In addition, the income profile had only a 5% chance of an annualized return of less than 3.3% over any five-year window over our 37-year historical sample. In other words, over the last 37 years, 95% of the time investors could realize a comparable or higher return from the income portfolio than they received from holding cash. And the worst 5-year annualized return of the income profile over this period was 1.9%; for cash; it was 0.7%.

These data should give pause to risk-averse investors with a five-year time horizon who have a disproportionately high allocation to savings accounts or cash.

The longer the investment horizon, the less variability in investment outcomes. Longer investment horizons also reduce the likelihood of experiencing negative returns. Data in the table below emphasize the benefit of remaining invested for the long run. For investors with a horizon of at least 5 years, the distribution of historical returns exhibits a clear positive skew for all our profiles, with only Growth and Growth Plus experiencing at least one 5-year negative outcome in our 37-year sample. For profiles using 10-year rolling samples, only Growth Plus has experienced an instance of a negative outcome; returns for all other profiles were consistently positive.

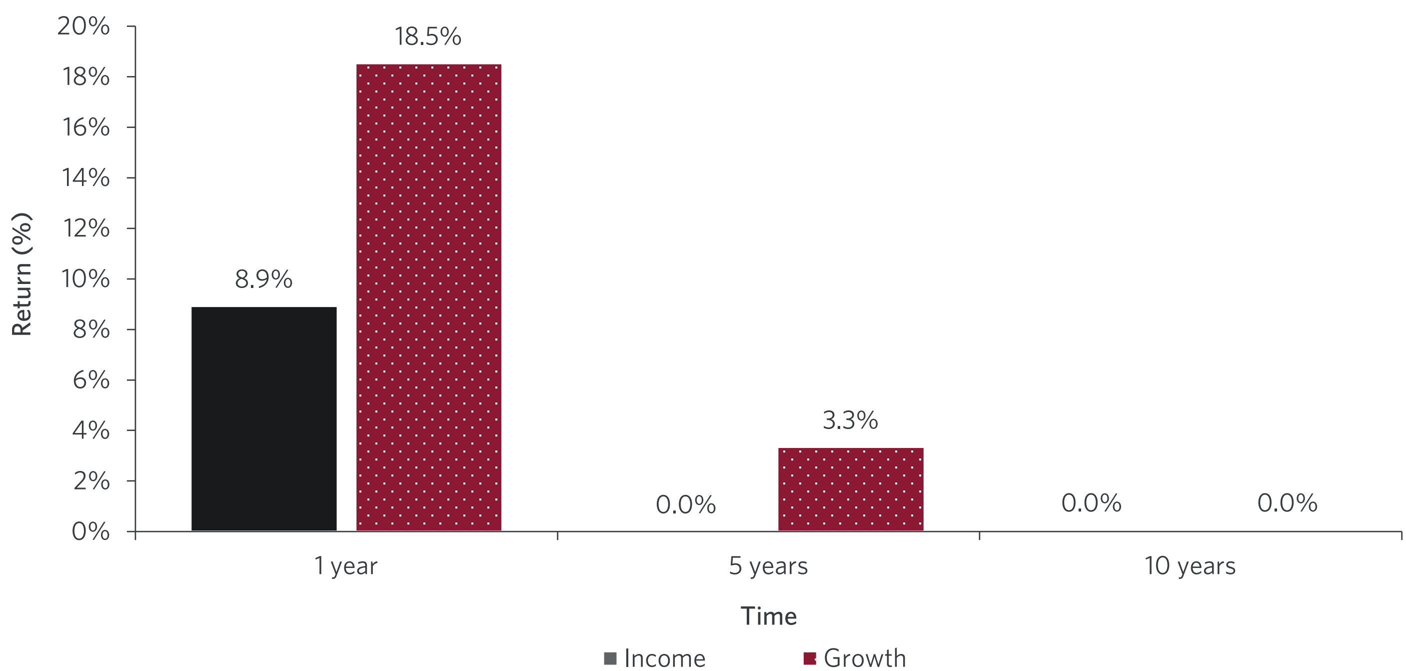
Annualized return variability (September 1986 – December 2023, in %; not annualized if less than 1 year)

	1 month		3 months		6 months		1 year		3 years		5 years		10 years	
	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst
Capital Preservation	4.7	-4.2	7.1	-6.0	11.6	-9.7	19.8	-8.1	15.6	-0.7	12.5	1.8	11.1	3.3
Income	5.5	-5.7	7.9	-7.4	14.0	-11.1	23.2	-8.7	17.1	0.4	13.7	1.9	12.3	3.4
Income & Growth	6.2	-7.6	10.0	-12.3	16.9	-14.8	26.9	-11.5	18.3	-3.2	15.0	0.4	13.8	2.2
Growth	7.8	-11.1	14.0	-16.5	20.8	-21.5	31.0	-18.5	19.4	-8.1	17.4	-1.7	15.3	0.4
Growth Plus	9.2	-15.6	17.9	-22.8	26.6	-29.9	35.7	-27.8	21.2	-13.2	19.5	-3.4	16.7	-1.2

Source: CIBC Asset Management Inc., Bloomberg. Calculations based on data available as of December 31, 2023.

Put another way, for the Income and the Growth profiles, the probabilities of realizing a negative one-year return during our historical sample period were 8.9% and 18.5%, respectively. These probabilities decreased to 0% and 3.3%, for rolling 5-year returns, and to 0% for both profiles using rolling 10-year returns. Staying invested and adhering to a disciplined asset allocation customized to an investor's unique long-term goals has historically produced superior results to market timing, which is often based upon emotional and inefficient responses to short-term volatility.

Percentage of negative annualized returns for the Income and the Growth profiles (September 1986 – December 2023)



Source: CIBC Asset Management Inc., Bloomberg, as at December 31, 2023.

Diversification

Diversification between asset classes is an important way to mitigate investment risks. In the long run, investors who do not allocate to a broad set of asset classes can miss the benefits of efficiency – higher return per unit of risk – that can be achieved in a more diversified portfolio. While many conservative investors prefer the safety of cash over other asset classes, appropriately diversified portfolios have been shown to outperform most individual asset classes, and particularly cash, on a risk-adjusted basis over the long term. Investing in a broad mix of asset classes consistent with an investor's risk tolerance and liquidity requirements will ensure at least some participation in the highest-performing asset classes at any given time.

It's also important to go beyond simple asset class names and understand the make-up of a portfolio in terms of its exposure to risk factors and return drivers. Breaking down a portfolio's expected performance in this way is a sophisticated risk-management tool that allows us to adjust a portfolio's strategic asset allocation to ensure that expected risk and return parameters are consistent with investor objectives and constraints.

The chart below shows the extent to which each of our five investor profiles is exposed to various risk factors, including economic growth, interest rates, credit spreads, inflation, currencies, commodities and emerging markets. These risk factors are broader than individual asset classes and can provide an important perspective on the performance drivers of investor portfolios.

For our conservative profile, which has a high allocation to fixed income, interest rates represent the dominant risk factor. This means this portfolio will be particularly sensitive to changes in interest rates. Adding asset classes that are less sensitive to rates would deliver the largest diversification benefit to this profile. As we move to higher-risk portfolios, their performance depends more on economic growth, which is an important determinant of equity returns. The addition of asset classes whose returns depend less on economic growth outcomes can improve diversification in these portfolios. Examples include private credit, which typically provides exposure to high quality loans that sit higher in the capital structure than equity investors and provide a return premium to public credit comparables.

Portfolio exposure to macroeconomic factors

Percent (%) exposure to macroeconomic factor

Macroeconomic factors	Capital Preservation	Income	Income and Growth	Growth	Growth Plus
Economic Growth	44.05%	63.44%	80.48%	89.15%	91.63%
Inflation	0.37%	0.40%	0.68%	0.56%	0.39%
Canadian Exchange rate	3.19%	1.60%	0.89%	1.20%	2.08%
Government Bond Yield	51.31%	29.29%	8.93%	1.93%	0.01%
Credit Spread[5]	0.94%	4.85%	8.15%	5.75%	4.40%
Commodity	0.05%	0.39%	0.83%	1.22%	1.46%
Emerging Markets	0.09%	0.03%	0.04%	0.19%	0.03%

Source: CIBC Asset Management Inc., Bloomberg, as at December 31, 2023.

Endnotes

[1] Expected returns and expected standard deviations for the component asset classes are based on 10-year forecast returns as explained in CIBC Asset Management's 2024 long-term expected returns for capital markets report, available in English and French; expected returns and expected standard deviations are 10-year forward-looking hypothetical numbers. There are some unique exceptions where the expected return and expected standard deviations are not published, and are calculated by both CIBC Asset Management's Multi-Asset & Currency Team and Total Investment Solutions Team. The exceptions include forecasting the expected return of Liquid alternatives by US Cash plus 5%, converted to CAD; expected risk of Liquid alternatives as 10-year historical risk of three HFRI EH indices, blended equally: Long/Short Directional, Equity Market Neutral and Fund-of-Funds. Total Investment Solutions team uses Ares Capital Corporation (ARCC) NAV for private credit and NFI-ODCE Index for private real estate as these are truer reflections of the expected investor experience than broader market indices. Those expected risk and return numbers are 10-year forward-looking hypothetical estimates. "Aggressive Growth" profiles are renamed to "Growth Plus."

[2] The Portfolio Solutions Research Forum is chaired by Leslie Alba. Along with Michael Sager and David Wong, other members are: Michael Cook, CFA, Vice President Client Relations & LDI Client Portfolio Manager; Gaurav Dhiman, CFA, Portfolio Manager, Global Fixed Income; Philip Lee, CFA, Executive Director, Manager Research, Total Investment Solutions; Crystal Maloney, Head of Equity Research, Portfolio Management & Research; Patrick Thillou, Vice President & Head, Beta, Outcomes & Trading, Total Investment Solutions; Glen Martin, Global Beta, Total Investment Solutions; Glen Martin, Global Beta, Total Investment Solutions and Francis Thivierge, CFA, Senior Portfolio Manager, Multi-Asset & Currency Management.

[3] M2++ is a money supply aggregate of currency outside of banks and deposits at banks, including chequable deposits, non-chequable deposits and fixed term deposits.

[4] Performance proxy indices for the global asset allocation are: FTSE Canada 91 Day T-Bills Index for cash; FTSE Canada Universe Bond Index for Canadian bonds since inception (1990), and All Government Canadian Bonds with 10yr +maturity prior to 1990; Barclay's Global Aggregate Bond Index for Global Bonds since inception (1990), the JP Morgan Global Government Bond Ex Canada index prior to 1990; Bank of America Merrill Lynch BB-B US Cash Pay High Yield Index since inception (Sep 1988), Merrill Lynch US High yield Master II Index for Sept. 1986 to Aug. 1988; S&P/TSX Composite Index for Canadian Equity; MSCI World Index for Global Equity.

[5] To calculate portfolio exposure to macroeconomic risk factors, we 1) calculate the marginal contribution to risks (MCTR) of each risk factor by calculating the first derivatives of the portfolio standard deviation with respect to each macro factor; 2) run multi-variate regression to obtain the beta coefficients of all the macroeconomic risk factors, and use the beta coefficients as proxies for the factor weights; 3) calculate the absolute value of total contribution to risk (TCTR) of each risk factor by multiplying the MCTR (from step 1) and the corresponding factor weight (from step 2); 4) add up the TCTR for all the risk factors, and calculate the share of each risk factor's TCTR.

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