CIBC ASSET MANAGEMENT

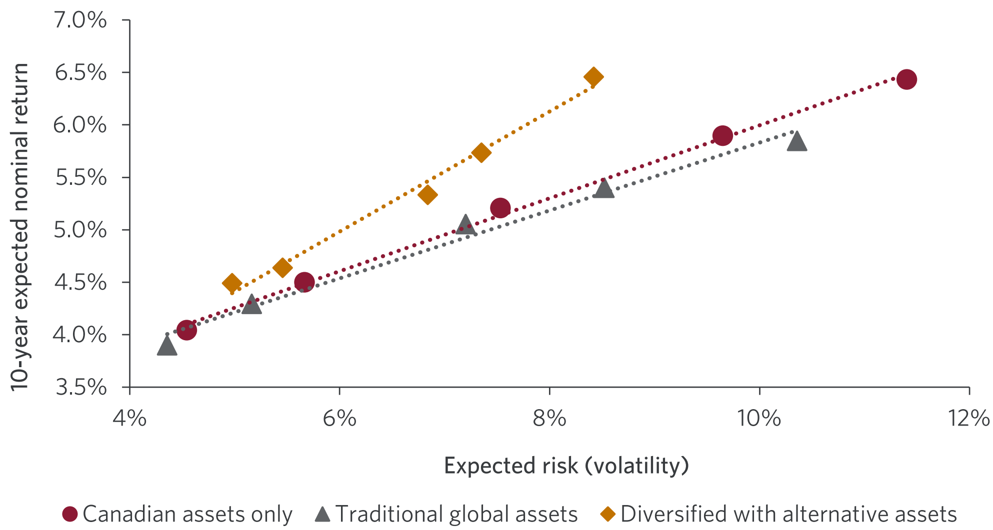
LONG-TERM STRATEGIC ASSET ALLOCATION

March 2023

Estimated Reading time
45 minutes

Inside this paper

Hypothetical expected nominal return and risk for various asset mixes



CIBC Asset Management calculations (hypothetical projections based on data available as of January 31, 2023). The above chart is for illustrative purposes only. In our asset allocation recommendations, expected returns and volatilities are supplemented with deep fundamental insights of asset class characteristics and behaviours less easily captured by quantitative analysis. These include, but are not limited to, sector concentration and diversification, correlation of the fundamental drivers of underlying corporate earnings or economies, and currency considerations.

Highlights

- This paper provides strategic asset allocation recommendations customized to various investor return and risk profiles. We contextualize these recommendations by considering what current market conditions imply for near-term asset class performance.
- Our investor profiles have demonstrated more resilience during recent market volatility than traditional balanced portfolios. The current market correction also means the long-term outlook for our profiles is much brighter than 12 months ago. Bond yields have reached levels that make fixed income a much more attractive proposition; equity valuations have begun to reach healthier levels; and alternative assets remain an important source of portfolio diversification.
- This year's strategic analysis incorporates several enhancements expected to improve long-term portfolio performance. These include an increased allocation to public equity, including to US equity; and, in fixed income, more exposure to credit. We also recommend exposure to a broader set of alternative asset classes, including additional private market solutions. Together, these enhancements are expected to increase the inherent diversification of our investor profiles, raise expected returns, and reduce the size and persistence of episodic capital drawdowns.
- We have also enhanced the rigour of portfolio analysis and oversight through the introduction of a monthly Portfolio Solutions Research Forum. This forum will be the focal point of firm-wide initiatives on portfolio construction and solutioning. It has strategic investment oversight responsibility for CIBC Asset Management (CIBC AM) Managed Solutions.

Introduction

Welcome to the 2023 edition of *Long-term Strategic Asset Allocation (LTSAA)*! We trust you will find the analysis and conclusions relevant to the challenges facing investors in today's uncertain environment.

This paper is a core component of CIBC AM's commitment to earn the role of essential partner and trusted advisor in the creation of solutions that consistently deliver value towards our clients' evolving needs. Its purpose is to provide you with our best long-term strategic portfolio construction ideas and recommendations, customized to 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 stay invested.

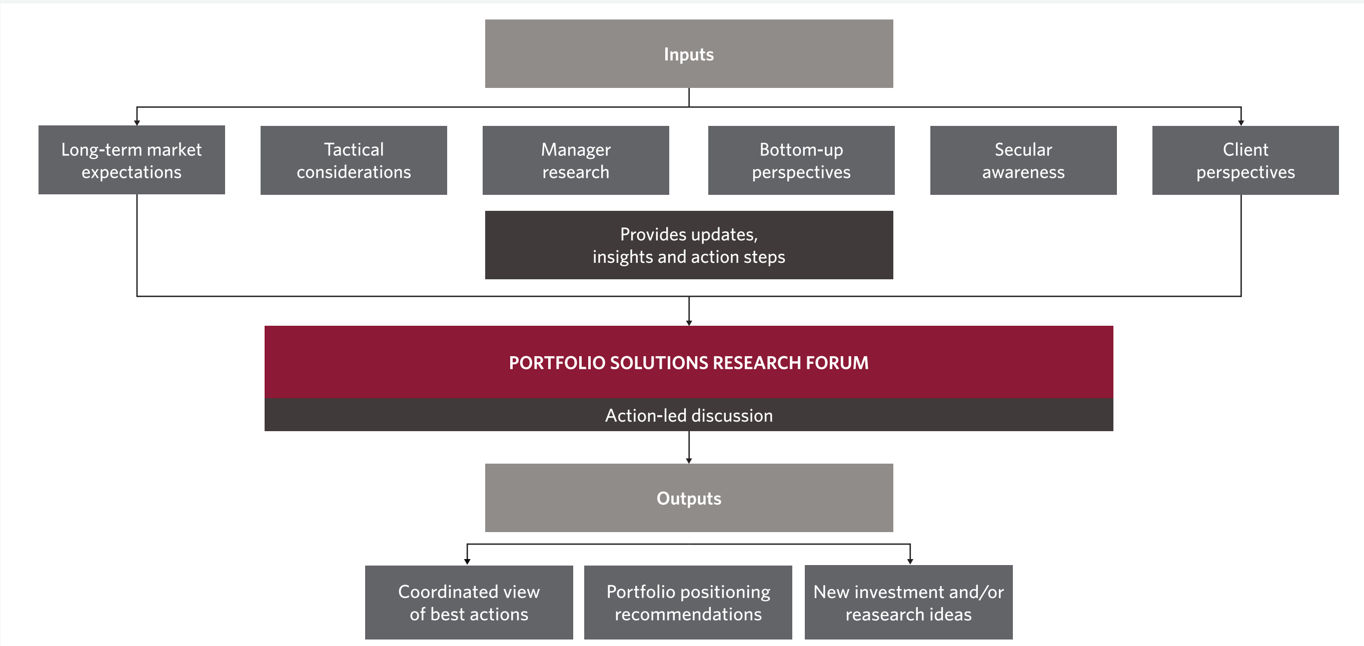
Recommended long-term strategic asset allocation for diversified with alternative assets portfolios[1]:

2023	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
Expected nominal return	4.5%	4.6%	5.3%	5.7%	6.5%
Expected standard deviation	5.0%	5.5%	6.8%	7.4%	8.4%
Money market and short-term fixed income	15%	15%	10%	4%	0%
Canadian fixed income	33%	25%	15%	5%	0%
Global fixed income	10%	10%	7%	8%	0%
US high-yield or floating-rate bonds	7%	7%	7%	6%	5%
Emerging market bonds	5%	3%	3%	3%	3%
Canadian equity	10%	15%	18%	21%	21%
US equity	7%	10%	15%	19%	24%
International equity	3%	5%	10%	13%	16%
Emerging market equity	0%	0%	5%	5%	10%
Global infrastructure	5%	5%	5%	4%	3%
Absolute-return strategy	5%	5%	3%	0%	0%
Private equity	0%	0%	2%	6%	8%
Private credit	0%	0%	0%	3%	5%
Private real estate	0%	0%	0%	3%	5%
Total	100%	100%	100%	100%	100%

Source: CIBC Asset Management calculations (projections based on data available as of January 31, 2023).

Portfolio Solutions Research Forum

The views of the Portfolio Solutions Research Forum, which is comprised of team members drawn from various CIBC Asset Management teams[2] , are used to guide the organization and its partners with strategic asset allocation recommendations and to provide strategic investment oversight for CIBC Managed Solutions. The Forum meets monthly and coordinates views and insights across long-term market returns, bottom-up perspectives, tactical multi-asset allocation and currency considerations, strategic portfolio construction research, manager research, and client perspectives.



Investment input	Purpose
Long-term expected returns	As CIBC AM long-term expected market returns evolve, the Forum interprets the implications of these changes for Managed Solutions portfolio strategic asset allocations.
Bottom-up perspectives	Bottom-up perspectives complement our top-down views by helping to identify emerging themes for Managed Solutions portfolio strategic asset allocations.
Tactical considerations	Rigorously considered tactical tilts intended to take advantage of shorter-term market opportunities or mitigate identified risks can enhance strategic portfolio performance.
Secular awareness	Developing an appropriate strategic asset allocation requires team members to keep abreast of long-term trends and structural changes in capital markets. An awareness of peer group performance ensures we deliver competitive investment solutions to our clients in order to achieve their investment objectives.
Manager research	CIBC AM's manager research team provides advisory on the fulfillment of strategic asset allocation. This team identifies best-in-class managers, monitors manager performance relative to expectations, and partners with each manager to ensure they remain a good investment fit for CIBC AM's managed solutions.
Client perspectives	As a key CIBC principle, helping clients realize their ambitions is at the heart of everything we do. Including the client's perspective in the work of the Forum keeps us focused on ensuring our strategic asset allocation enhances performance outcomes, and addresses appropriate objectives.

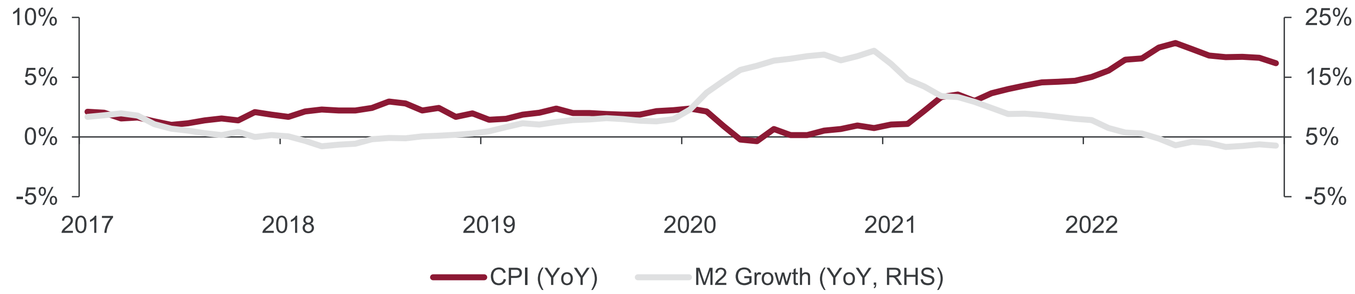
The information was prepared by CIBC Asset Management Inc. This chart is for illustrative and general purposes only.

The Forum provides an opportunity for participants to share ideas, opinions, and critical thinking. The objective is to conduct an action-oriented discussion that stimulates and organizes firm-wide research, identifies and applies cutting-edge portfolio construction techniques, and hones consistently clear investment recommendations and communication.

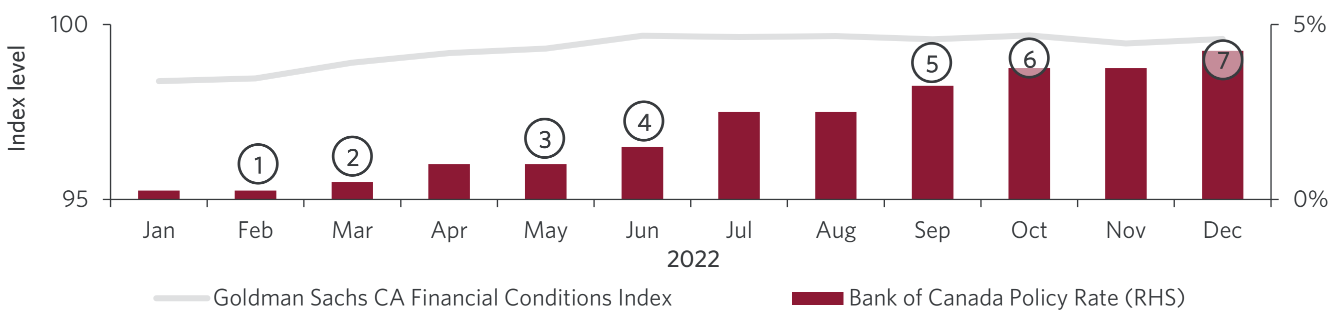
Capital markets review

In Canada

Inflation reached 1970s levels; Year-over-Year Money Supply (M2[3]) growth has declined but inflation remains sticky

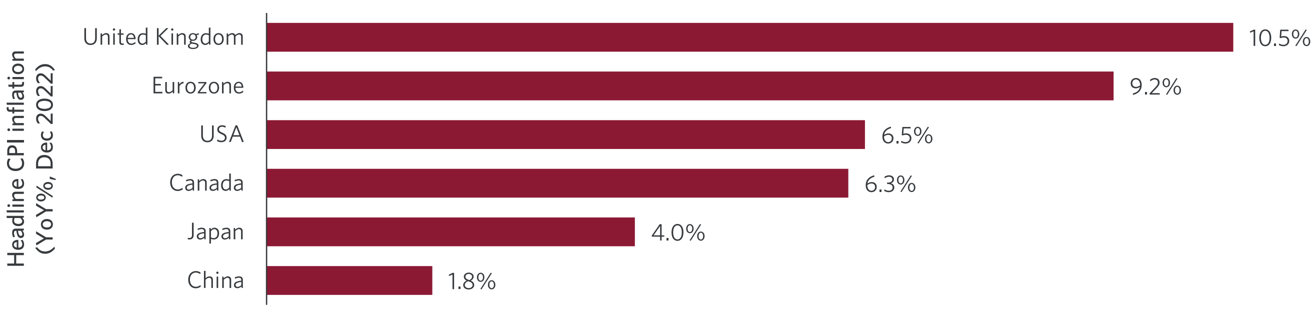


The interest rate increased 400bps over 7 rate hikes

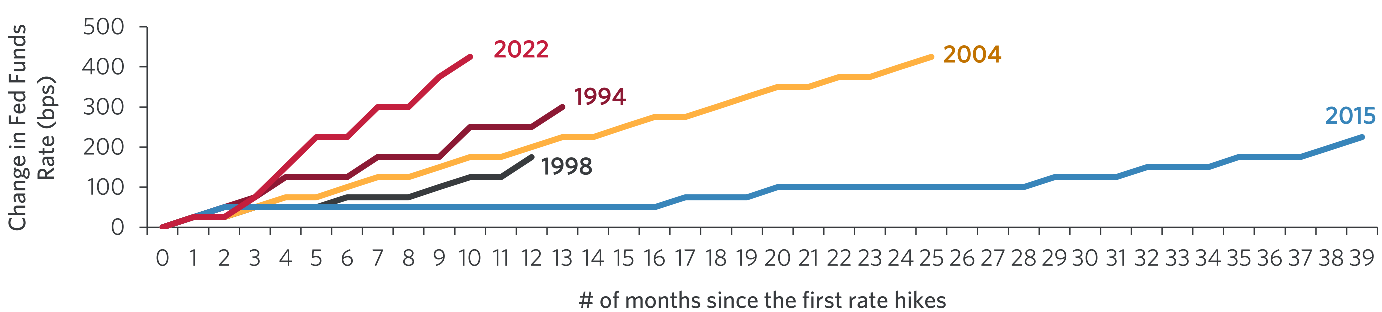


Internationally

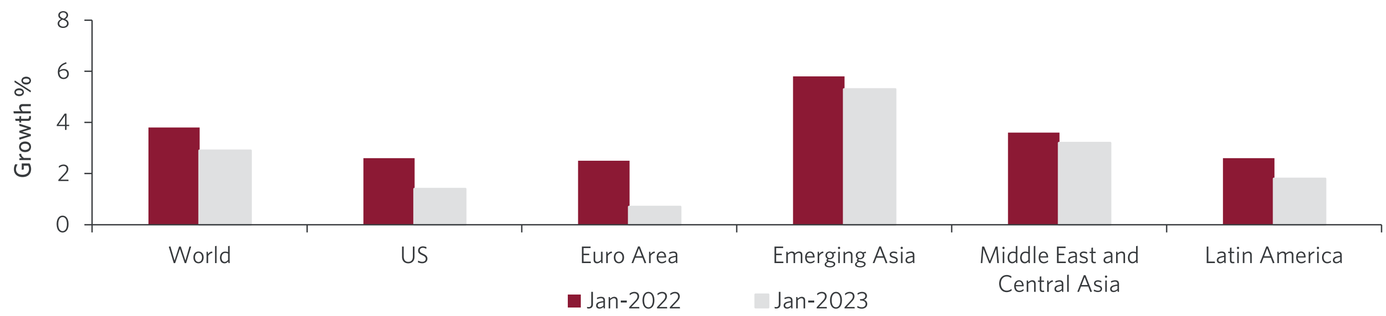
High inflation across developed markets



Record pace of policy rate increases

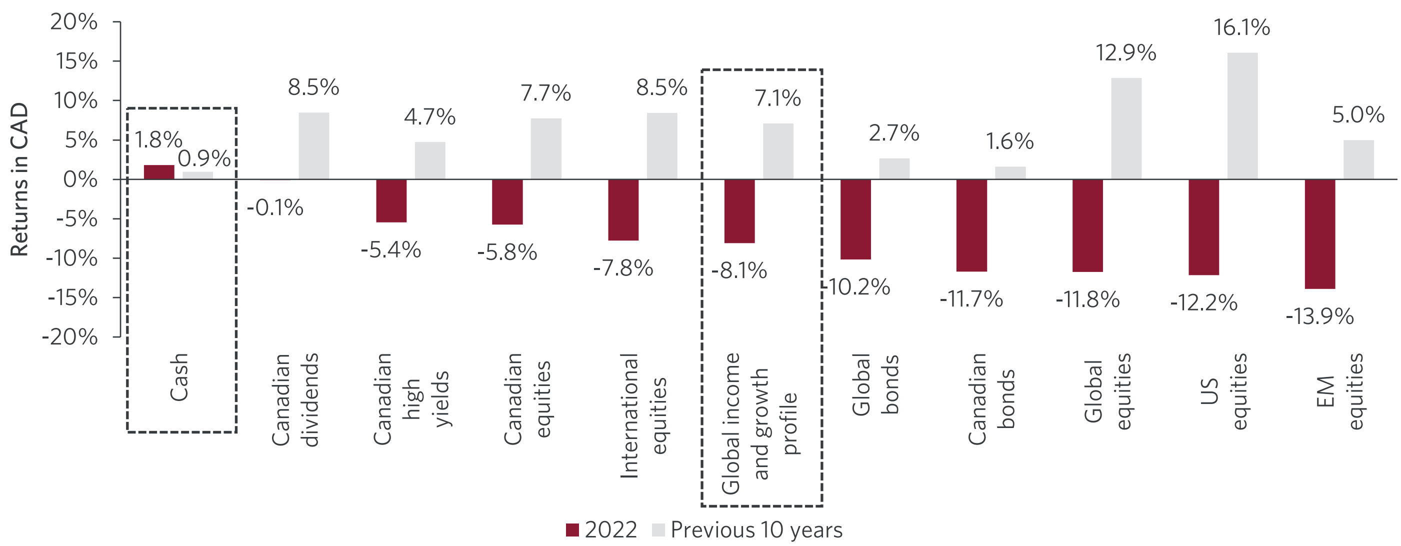


Downwards revisions to International Monetary Fund (IMF) growth projections for 2023

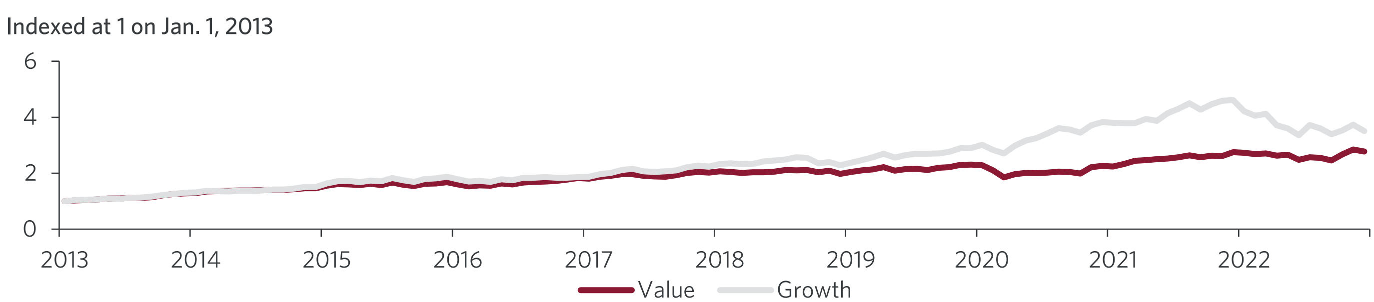


In markets

Cash was the only safe haven in 2022



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

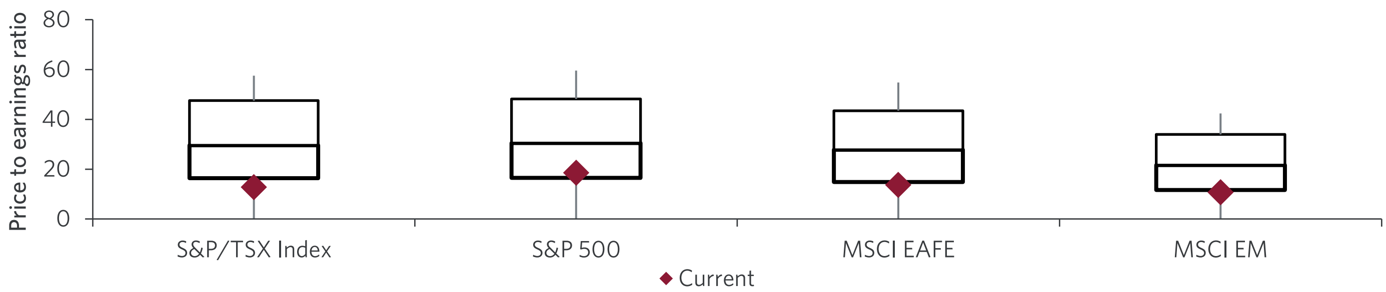


Canada and US managers generally did well in 2022

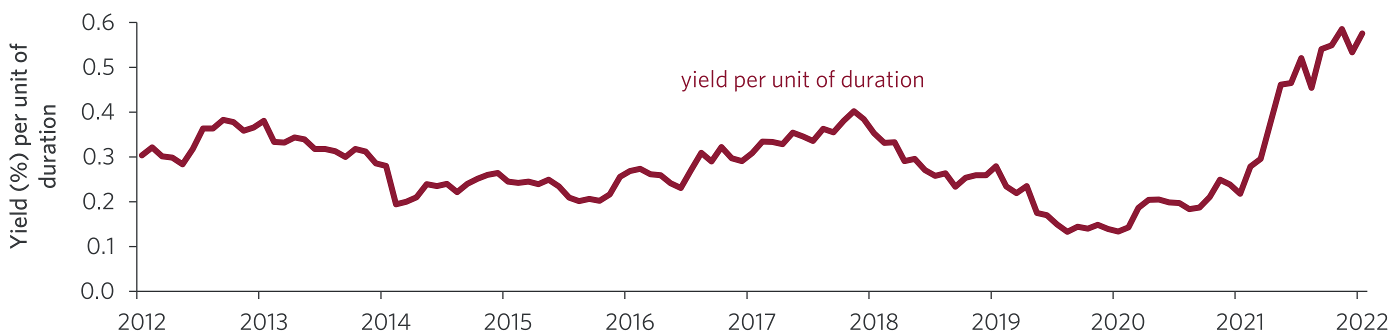
2022 Equity funds: % of active managers ahead of benchmark.

67%	64%	31%
Canada	USA	ACWI ex USA

Equity valuations (price to earnings ratio) are around bottom quintile since 2000



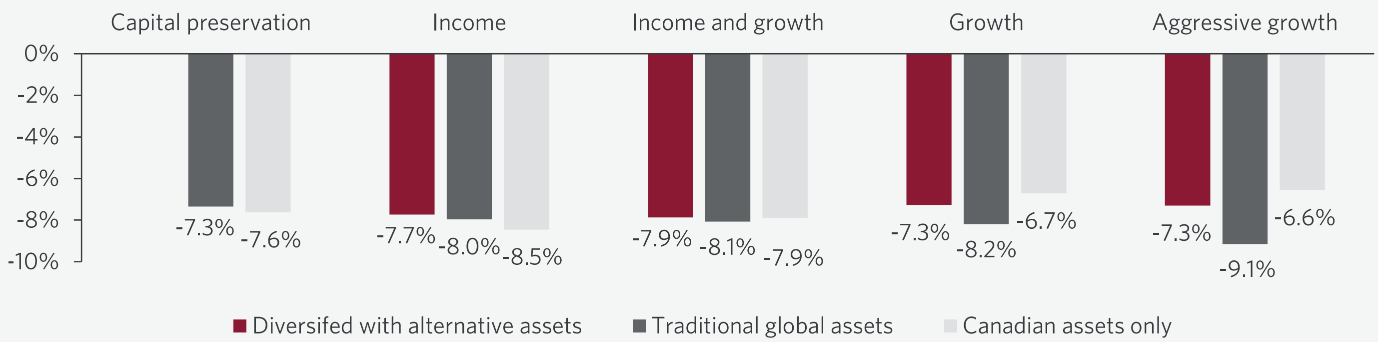
Canadian aggregate bonds are attractive relative to history



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 of December 31, 2022. IMF projections as of January 31, 2023.

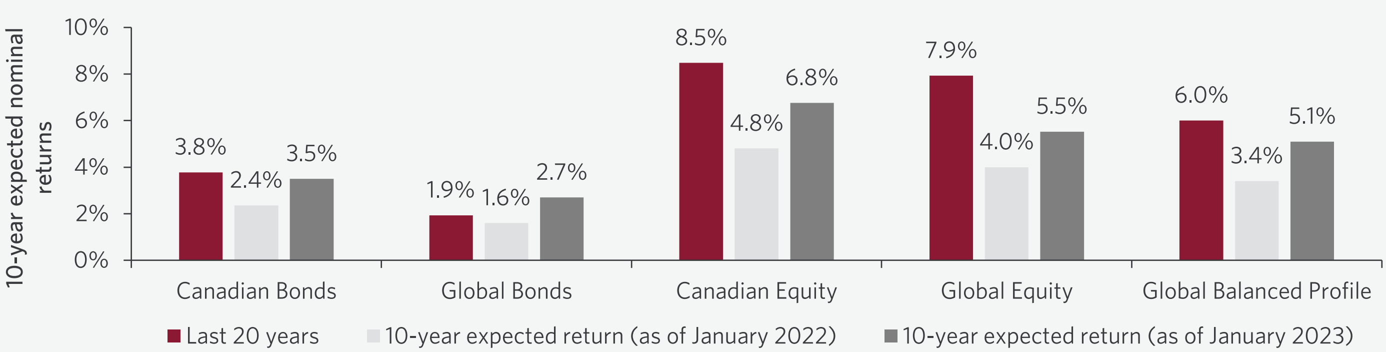
In 2022, portfolios diversified with alternative assets outperformed portfolios of traditional global assets due to their exposure to non-traditional asset classes. Canadian-asset-only portfolios with higher exposures to equities performed best over the year as Canadian equities held up relatively well over this short period.

2022 LTSAA investor profile performance



Source: CIBC Asset Management Inc. 2022 *Long-term Strategic Asset Allocation*; investor profile performance is based on the recommended asset allocations in CIBC Asset Management's 2022 Long-term Strategic Asset Allocation paper, which can be found here in English and French. Calculations based on performance data during January 1, 2022 – December 31, 2022.

Hypothetical 10-year expected nominal returns remain low relative to history but improved during 2022



Source: CIBC AM for expected returns and asset allocation weights, where Global Balanced is the recommended 'Income & Growth' asset allocation for Traditional Global Assets portfolios. Historical calculations are based on historical recommended asset allocations; Bloomberg for index returns as proxies for asset class performance. 10-year annualized expected returns are nominal and explained in CIBC AM's 2023 Long-term Expected Returns paper, which can be found here in English and French: Calculations of last 20 years performance based on data available as of December 31, 2022. Projections based on data available as of January 31, 2023.

Strategic asset allocation

The importance of strategic asset allocation

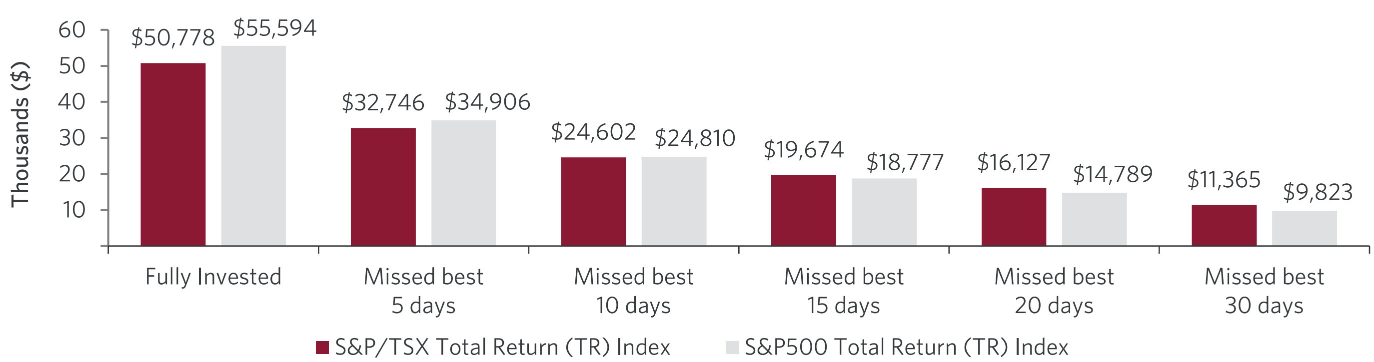
Strategic asset allocation is commonly used to improve investor outcomes through diversification—namely constructing portfolios with a combination of assets that exhibit historically low correlation and performance patterns. Over the long term, strategic asset allocation has demonstrably improved overall portfolio efficiency and increased risk-adjusted returns versus individual asset classes.

The benefits of asset allocation help to overcome concentration risks and behavioural biases. A long-term diversified portfolio helps investors to avoid overweighting assets with higher recent returns (recency bias), domestic-only assets (home-country bias), or selling risk assets in volatile or declining markets (market timing). These behaviours have been shown to negatively impact long-term performance and lead to investors missing market recoveries and rebounds in underperforming asset classes, sectors or geographic exposures.

Some of the best days of equity returns follow close on the heels of the worst. This makes market-timing hard to get right. As shown in the chart below, the consequence of market-timing is often a failure to capitalize on equity market recoveries, to the detriment of long-term portfolio performance. Patience has been historically rewarded, as has a willingness to take appropriate risks.

Staying fully invested improves wealth generation

Wealth generation from January 1, 2003, to December 31, 2022



Sources: CIBC AM and Bloomberg. Based on data available as of December 31, 2022.

Trying to time markets by reacting to pessimistic or exuberant headlines can lead to suboptimal portfolio construction and returns. Sticking to a long-term strategic asset mix can help mitigate the negative impact of these tendencies and improve expected performance.

Our approach to strategic asset allocation

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 structural return opportunities.

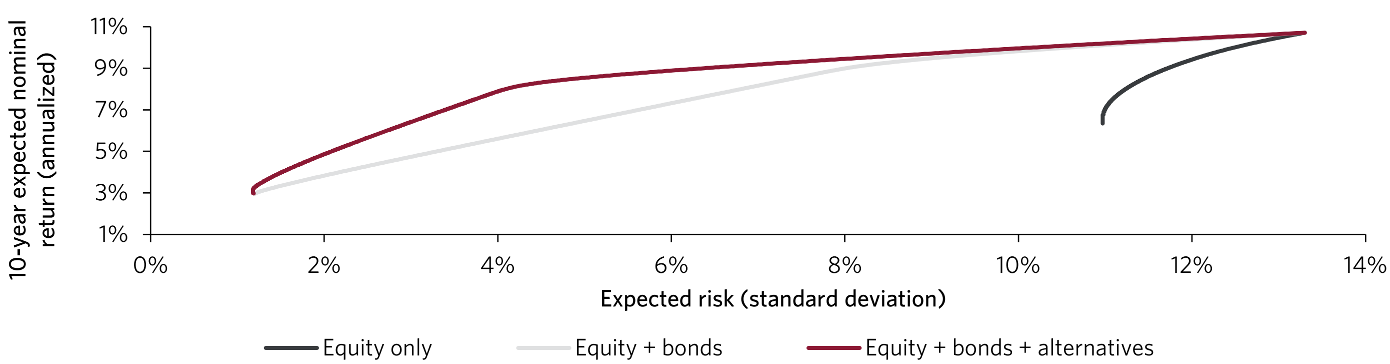
We have several fundamental beliefs related to strategic asset allocation. These include:

- 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;
- and a 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. Meanwhile, 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 return 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.

Combining assets using thoughtful strategic asset allocation enhances expected portfolio outcomes

Efficient frontier (2023 forward-looking estimates):



Source: CIBC Asset Management calculations (projections based on data available as of January 31, 2023).

Canadian investors often exhibit a pronounced home-country bias. This means they exhibit a tendency to have materially higher allocations to domestic equities in portfolios than Canada's weight in global equity indices. Historically, there were legitimate reasons for this behaviour, including relatively high transaction costs, foreign exchange risks, less access to information, the foreign property rule, and geopolitical risks. However, the argument for sustaining a pronounced home-bias is weakened by the following:

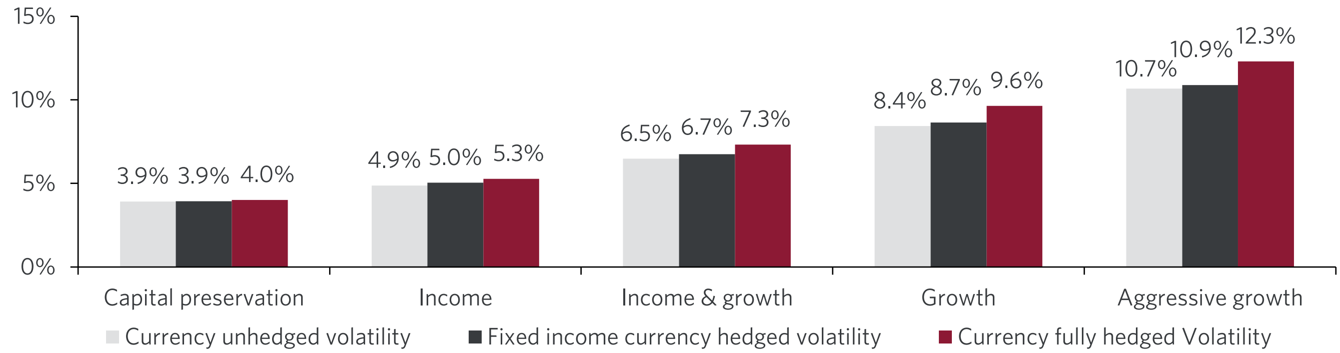
- diversification benefits that derive from investing overseas;
- increased cross-border information transparency;
- and greater integration of financial markets across the globe, allowing for easier movement of capital.[4]

Over short-term periods, currency risk inherited from global asset exposures can introduce unwanted volatility into portfolios. In 2022, this volatility worked in favour of Canadian investors. The Canadian dollar depreciated 6.8% against the US dollar, and fully hedged portfolios underperformed unhedged portfolios by 0.8% for the capital preservation profile, and by 3.1% for the aggressive growth profile. By contrast, in 2021 the Canadian dollar appreciated 0.9% against the US dollar, and fully hedged portfolios outperformed unhedged portfolios by 1.0% for the capital preservation profile, and by 2.1% for the aggressive growth profile.

Over long-term periods, and from a Canadian investor's perspective, currency hedging increases portfolio volatility of a portfolio that favours equity. Given the historical negative correlation between Canadian dollar and equity returns, currency movements have acted as a portfolio diversifier. As the following chart highlights, unhedged multi-asset portfolios exhibit the lowest risk for alternative global asset investor profiles, while hedging fixed income only incrementally increases volatility over the long-term horizon.

Currency unhedged multi-asset portfolios exhibit lowest risk over the long term

Historical volatility for currency unhedged vs. hedged portfolios (December 1990 to December 2022)[5]



2023	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
Foreign currency exposure in fixed income	25%	30%	24%	19%	10%
Foreign currency exposure in equity	5%	10%	27%	42%	60%
Total currency exposure	30%	40%	51%	61%	70%

Source: CIBC AM for model portfolio weights; Bloomberg for index returns as proxies for asset class performance. Based on data available as of December 31, 2022.

For both home-bias and currency hedging, our approach is to thoughtfully construct strategic asset allocations aligned with investors' objectives, risk tolerance and practical constraints, including tax considerations.

Awareness of these and other nuanced considerations is crucial to successful asset allocation. Our diversified, long-term approach based on decades of data, is expected to help each investor meet or exceed their unique long-term objectives within a given risk profile.

2023 changes to long-term strategic asset allocation[6]

The 2023 changes to the long-term strategic asset allocations are focused on four broad updates. The first update is to increase exposure to the ERP in general; and, second, to increase the strategic weight to US equities more specifically. These two strategic asset allocation recommendations are applied to all sets of portfolios. The third and fourth adjustments apply only to the portfolios diversified with alternative assets. In these, we recommend removing the strategic allocation to multi-sector fixed income and adding private credit and private real estate to enhance expected investment outcomes.

The changes to each set of portfolios are presented in the tables below, followed by an explanation of each of the four broad updates.

Canadian-asset-only portfolios: recommended long-term strategic asset allocation

These portfolios are designed for clients with an objective or desire to invest in only domestic assets.

2023	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	4.0%	4.5%	5.2%	5.9%	6.4%
Expected standard deviation	4.5%	5.7%	7.5%	9.6%	11.4%
Money market and short-term fixed income	20%	8%	4%	3%	0%
Canadian fixed income	60%	60%	43%	23%	10%
Canadian equity	20%	32%	53%	74%	90%
Total	100%	100%	100%	100%	100%

Change from 2022	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	1.4%	1.5%	1.7%	1.9%	2.0%
Expected standard deviation	1.2%	1.1%	0.6%	0.2%	0.0%
Money market and short-term fixed income	-2%	-2%	-1%	-2%	–
Canadian fixed income	–	–	-2%	-2%	-5%
Canadian equity	2%	2%	3%	4%	5%
Total	0%	0%	0%	0%	0%

Traditional global asset portfolios: recommended long-term strategic asset allocation

These portfolios are designed for clients who want broad exposure to international equity and bond markets. The recommended asset class weights below are based on unhedged global fixed income, as portfolios strategically positioned for the long-term benefit from unhedged foreign currency through diversification of risk and return. However, investors more concerned with short-term volatility, whether in fixed income or across the broader portfolio, may want to consider hedging.

2023	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	3.9%	4.3%	5.1%	5.4%	5.8%
Expected standard deviation	4.4%	5.2%	7.2%	8.5%	10.4%
Money market and short-term fixed income	20%	10%	4%	4%	0%
Canadian fixed income	35%	30%	14%	4%	0%
Global fixed inomce	20%	20%	15%	10%	0%
US high yield	5%	10%	9%	9%	10%
Canadian equity	15%	20%	31%	31%	30%
Global equity	5%	10%	27%	42%	60%
Total	100%	100%	100%	100%	100%

Change from 2022	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	1.4%	1.5%	1.7%	1.7%	1.6%
Expected standard deviation	1.0%	0.6%	0.1%	0.0%	-0.2%
Money market and short-term fixed income	–	–	-1%	-1%	–
Canadian fixed income	–	–	-1%	-1%	–
Global fixed inomce	–	–	–	–	–
US high yield	–	–	-1%	-1%	–
Canadian equity	–	–	1%	1%	–
Global equity	–	–	2%	2%	–
Total	0%	0%	0%	0%	0%

Diversified with alternative assets portfolios: recommended long-term strategic asset allocation

These portfolios are designed for clients with the goal of enhancing risk-adjusted returns through exposure to more granular segments of traditional asset classes and alternatives. This year, we have added a capital preservation profile for lower-risk clients, as well as those with a shorter investment horizon. The recommended asset class weights below are based on unhedged global fixed income, as portfolios strategically positioned for the long-term benefit from unhedged foreign currency through diversification of risk and return. However, investors more concerned with short-term volatility, whether in fixed income or across the broader portfolio, may want to consider hedging.

2023	Capital Preservation	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	4.5%	4.6%	5.3%	5.7%	6.5%
Expected standard deviation	5.0%	5.5%	6.8%	7.4%	8.4%
Money market and short-term fixed income	15%	15%	10%	4%	0%
Canadian fixed income	33%	25%	15%	5%	0%
Global fixed income	10%	10%	7%	8%	0%
US high yield and floating- rate bonds	7%	7%	7%	6%	5%
Emerging market bonds	5%	3%	3%	3%	3%
Canadian equity	10%	15%	18%	21%	21%
US equity	7%	10%	15%	19%	24%
International equity	3%	5%	10%	13%	16%
Emerging market equity	0%	0%	5%	5%	10%
Global infrastructure	5%	5%	5%	4%	3%
Absolute return strategy	5%	5%	3%	0%	0%
Private equity	0%	0%	2%	6%	8%
Private credit	0%	0%	0%	3%	5%
Private real estate	0%	0%	0%	3%	5%
Total	100%	100%	100%	100%	100%

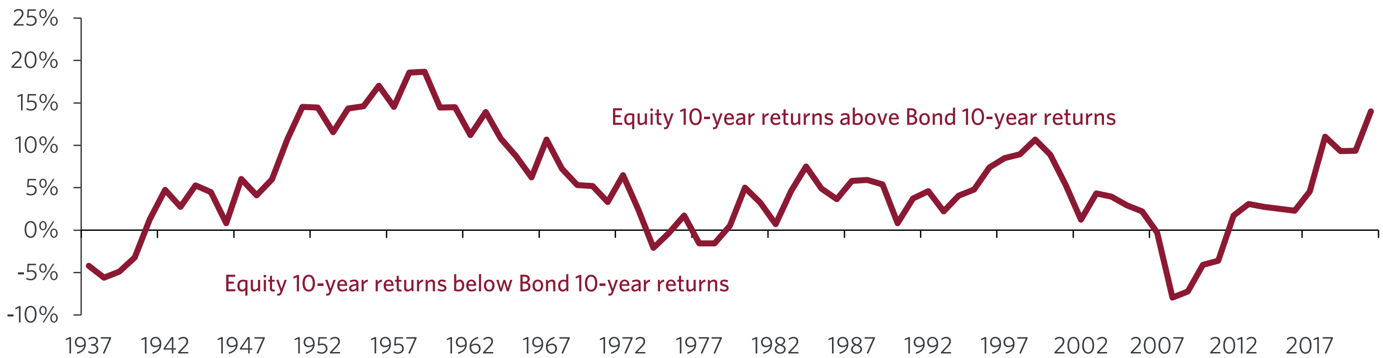
Change from 2022	Income	Income & Growth	Growth	Aggressive Growth
10-year expected nominal return (annualized)	1.5%	1.6%	1.3%	1.3%
Expected standard deviation	1.0%	0.5%	0.5%	0.0%
Money market and short-term fixed income	0%	0%	-1%	0%
Canadian fixed income	0%	0%	0%	0%
Global fixed income	0%	0%	0%	0%
US high yield and floating- rate bonds	2%	2%	1%	0%
Emerging market bonds	3%	3%	0%	0%
Canadian equity	0%	0%	1%	1%
US equity	0%	0%	4%	4%
International equity	0%	0%	1%	1%
Emerging market equity	0%	0%	0%	0%
Global infrastructure	0%	0%	-3%	-4%
Absolute return strategy	0%	0%	0%	0%
Private equity	0%	0%	-4%	-7%
Private credit	0%	0%	3%	5%
Private real estate	0%	0%	3%	5%
Multi-sector fixed income	-5%	-5%	-5%	-5%
Total	0%	0%	0%	0%

Strategic asset allocation change #1: increase exposure to the equity risk premium

As stewards of savings and wealth, our goal is to increase the likelihood of maximizing performance outcomes for investors, subject to their stated risk tolerance. Constructing portfolios centered on equities has historically achieved this objective. Equity prices typically exhibit higher variability, or risk, than bond prices over short-term periods. A willingness to accept this risk historically has been rewarded over longer periods that are typically the focus of strategic investing.

Equities generally outperform 10-year maturity bonds over rolling 10-year periods

S&P 500 Index returns minus U.S. 10-year maturity Treasury bond returns (10-year periods from 1928 to 2021)



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data:stern.nyu.edu. Annual data. Sample: January 1928 to December 2021.

From 1928 to 2021, 10-year rolling US equity returns exceeded the return on US 10-year maturity government bonds by an average of 5% annualized. The only 10-year time periods in which the ERP was not positive were during episodes of exceptional economic dislocation:

- the 1929 Great Depression (when bond prices soared and yields declined sharply);
- the 1970s inflationary period that drove a global bear market in stocks;
- and the 2008 Global Financial Crisis.

Furthermore, measuring the equity risk premium over investment horizons longer than 10 years tends to lead to a substantial reduction in realized volatility. This is true in both equity returns and the returns to aggregate investor portfolios. Notably, there has never been an observed 20-year period in history where a broad representation of the equity market, measured using US data, has realized a negative absolute return. We expect the ERP to remain positive in the long term, and equity returns to continue to outperform bonds on average. This means equities are expected to remain the cornerstone of portfolio wealth-creation. For investors with a long-term time horizon and tolerance for short-term volatility, or for investors targeting wealth accumulation, equities remain a significant component of recommended strategic asset allocation.

In most cases, increased allocations to equities are accompanied by a decrease in cash, short-term bonds or other sources of fixed income. In the diversified with alternatives portfolios, the increase in equity is funded from a decrease in private equity as an alternative source of equity. The reduction in private equity also helps balance this exposure with the addition of new private assets.

Strategic asset allocation change #2: increase strategic weight of US equity

The addition to equity also provides an opportunity to adjust exposures within this asset class—the recommended result is an increased allocation to US equity. This decision is based on several observations. First, the US equity market spans a significant proportion of global technological innovation relative to other markets. This is evidenced by the composition of the top 10 names in the S&P 500 Index, relative to the top 10 names in the MSCI EAFE® Index which represents the largest companies of European, Australian, and developed Asian countries. The US benchmark of today appears to be more reflective of the economic future than does the international benchmark. In fact, the EAFE® benchmark looks more like the S&P 500 Index of 10 years ago (which had more energy and consumer staples exposure).

EAFE® is a registered trademark of MSCI Inc., used under license.

The US benchmark of today includes companies strategically positioned for the future

Top ten constituents by market capitalization of the S&P 500 and MSCI EAFE®

S&P 500

Company	Sector
Apple	Technology
Microsoft	Technology
Amazon	Consumer discretionary
Tesla	Consumer discretionary
Alphabet	Communication services
Berkshire Hathaway	Financials
UnitedHealth	Healthcare
Johnson & Johnson	Healthcare
Exxon	Energy
Meta Platforms	Technology

EAFE®

Company	Sector
Nestlé	Consumer staples
Roche	Healthcare
Shell	Energy
ASML	Technology
AstraZeneca	Healthcare
LVMH	Consumer discretionary
Novo Nordisk	Healthcare
Novartis	Healthcare
Toyota	Consumer discretionary
BHP Group	Materials

The information was prepared by CIBC Asset Management Inc. using the following third-party service providers data: Slickcharts.com. Data as at September 30, 2022.
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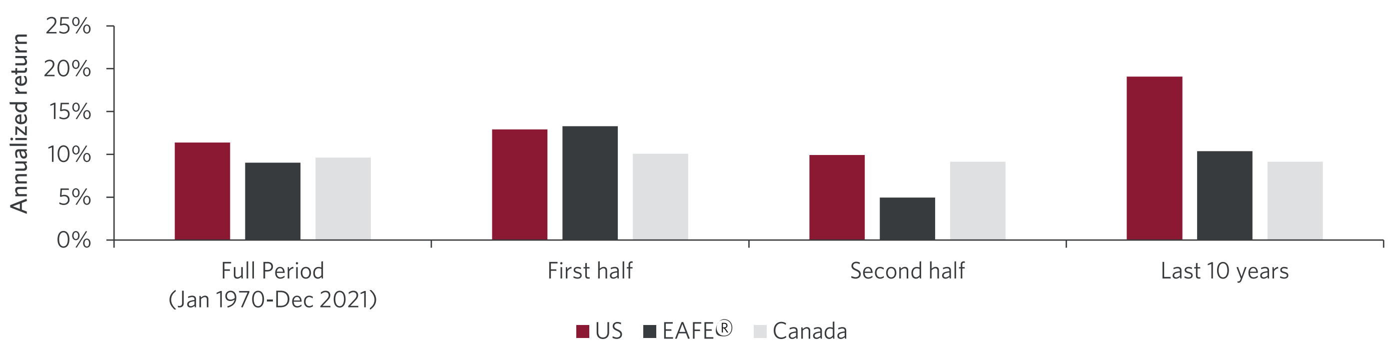
The US market has outperformed other developed equity markets over many decades. In part, this has been due to the demonstrated ability of corporate America to constantly re-invent itself through creative destruction. Evidence of more innovative companies is a factor that should be reflected in a strategic asset mix.

The US market has been a consistent outperformer

Annualized returns across developed equity markets



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: slickcharts.com Data as at September 20, 2022
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The outperformance of US equities has implications for valuations and aggregate market mean reversion. As discussed in the annual CIBC Asset Management long-term expected returns paper, the corollary of current stretched US valuations, relative to other markets, is a lower relative expected return in coming years. However, there are important nuances to any aggregated view.

The non-normal distribution of returns in an index can continue to defy headline characteristics such as starting price/earnings (P/E) multiples. Simply put, most of the returns to an aggregate market index can come from a small subset of companies. For instance, rapid growth of smaller companies that re-rate or exhibit rapid earnings growth can replace larger companies that de-rate over time. This process can make some markets appear permanently expensive but no less innovative. For example, 10 years ago IBM was in the top 10 of US names, and Tesla was nowhere to be seen. Today, IBM is not even on the list of top 50 largest US companies, but Tesla is fourth. Index composition can change over time, and this is an important consideration when looking at aggregated metrics. As the saying goes, "a man cannot step in the same river twice, for it's not the same river, and he's not the same man."

In addition to factoring in innovation and historical observations of uninterrupted exceptionalism, the US market has grown in terms of its importance in global markets. Ten years ago, the US made up around 50% of the global developed equity benchmark. Today, it sits close to 70%. While we would not limit asset allocation considerations simply to what is represented in the most commonly followed benchmarks in the world, attention should be paid to the opportunity set that exists, and the active risk that results from this perspective.

Through this lens, long-term strategic asset allocations have had a growing strategic underweight to US equities relative to their market weight. We are addressing this gap by recalibrating the US equity weight upwards, and exposure to other developed equity markets downwards.

Strategic asset allocation change #3: remove strategic allocation to multi-sector fixed income

Multi-sector fixed income strategies pursue outperformance relative to a benchmark index by implementing active positions across a wide range of fixed income sectors including government bonds, corporate bonds, high-yield and emerging market debt. We acknowledge that multi-sector fixed income products can be a useful way to implement these extended fixed-income investments, given they can tactically adjust exposure in real-time. However, due to significant overlap in exposures with other asset classes in the investible universe for the diversified with alternatives portfolios, we have removed this as a distinct line item. Advisors who desire tactical allocations across these fixed income areas might continue to find utility from a multi-sector fixed income strategy as a way to express some or all of this diversified allocation. In the conservative portfolios, where diversified bond exposure through spread assets is most rewarded, we re-allocate available capital to high-yield and emerging markets debt. In more aggressive profiles, with relatively more equity risk, we re-allocate to private credit.

Strategic asset allocation change #4: add private credit and private real estate

While not appropriate for all investors, a core tenet of the investment case for private market alternatives is the opportunity to enhance expected returns relative to traditional public asset classes. This opportunity arises from a willingness to forego liquidity and to participate in niche, emerging or segmented markets and sectors. Here, information asymmetries, frictions and heterogeneities are relatively persistent, complexity and transaction and search costs are high, and competition is scarcer. All these facets enable investors with skill, and often scale, to prosper.

Long-term hypothetical expected returns remain relatively attractive for private market opportunities

The illiquidity premium

What is the illiquidity premium?

- An expected return premium to compensate for accepting exposure to intrinsic illiquidity within an asset class.
- Liquidity provides investors with options; illiquidity constrains them. An illiquid asset cannot easily be sold to meet unexpected spending needs or to take advantage of better investment opportunities. A willingness to accept this constraint should be rewarded.
- Illiquidity premium can reflect: participation and transaction costs; search frictions; asymmetric and imperfect information.

Where can we harvest an illiquidity premium?

- Off-the-run fixed income securities (“on-the-run/off-the-run bond spread”)
- Less liquid corporate bonds, versus more liquid issues
- Private equity
- Real assets, including real estate, infrastructure and farmland

Where should we not expect an illiquidity premium?

- For acceptance of exposure to artificial gates and lock-ups not intrinsic to the underlying risk exposure.
- Manager dispersion, partially caused by vintage year of funds, is much greater in private markets (and vintage years) than in liquid public markets.

Ability to select top-performing managers, not an illiquidity premium, will be a key determinant of realized returns to private assets and strategies.

The information was prepared by CIBC Asset Management Inc. The above is for illustrative and general purposes only.

Private market alternatives also provide a measure of unique diversification benefits. This is achieved through two routes. First, by allowing investors access to opportunities, and risks, not available from traditional public market vehicles. For example, a high-quality property in a location that cannot be replaced may bring resilience not found in public comparables. Second, diversification benefits have been achieved from the return smoothing associated with private market alternatives that reflects irregular marking-to-market of fund valuations. The fact that general partners do not need to sell their holdings for liquidity or other purposes means that valuation is dependent on factors that are less prone to the observations of overreaction in the public markets. However, the subjective nature of private-market valuation approaches means that diversification across the portfolio to include public investments, as well as within the private portfolio to include multiple managers, will help to mitigate any 'unknown unknowns' and remains the most prudent course of action.

A combination of enhanced expected returns and greater diversification means that an allocation to private market alternatives typically shifts portfolio efficient frontiers upward.

The addition of private credit is mostly funded through the removal of multi-sector fixed income. The addition of private real estate is largely funded through a reduction in the allocation to real assets, which contains both liquid real estate and infrastructure. And with the inclusion of private real estate, we recommend a more targeted allocation to global infrastructure rather than a broader generic allocation to real assets.

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.***[7]

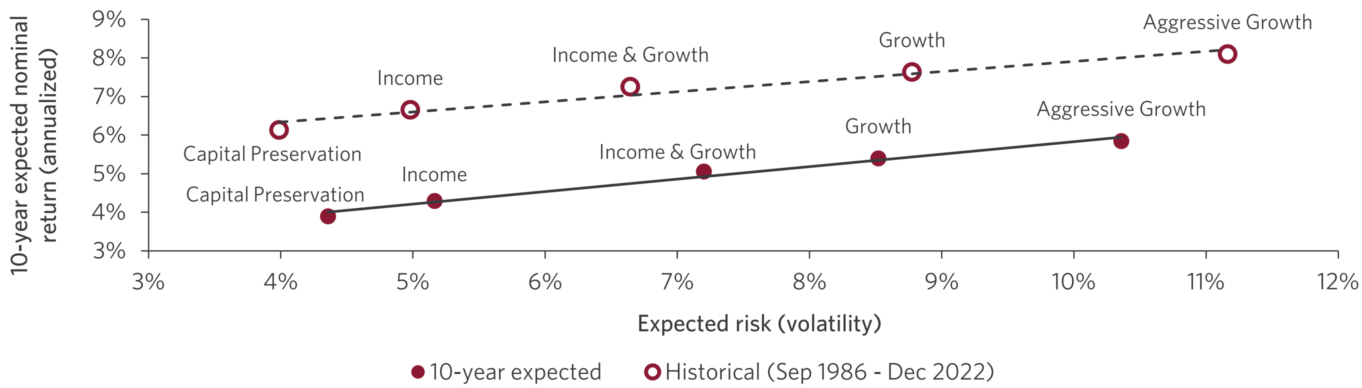
Risk suitability

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.

2023 Traditional global asset portfolios historical vs 10-year expected nominal return and volatility

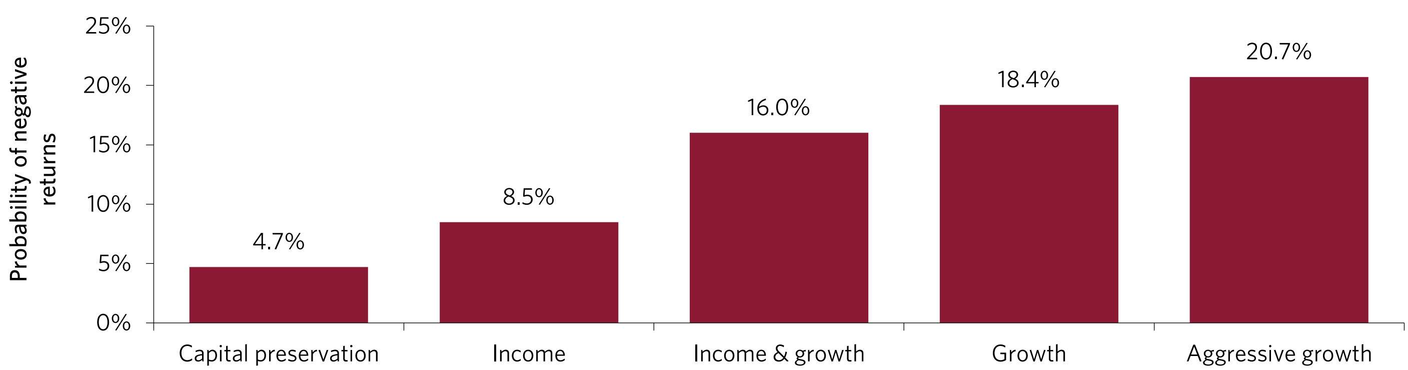
Expected returns are low relative to history due to demographic headwinds impacting labour productivity, structural inflationary pressures and continued elevated valuations, especially in equities.



Source: CIBC Asset Management Inc. Based on data available as of January 31, 2023.

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

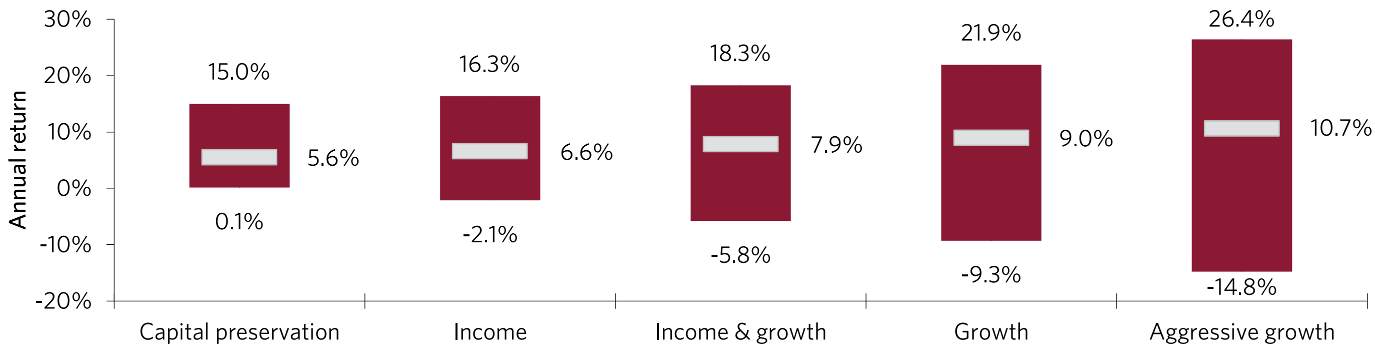
Probability of negative annual returns in one-year rolling periods (September 1986 to December 2022)



Source: CIBC Asset Management Inc. Based on data available as at December 31, 2022.

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 2022. While higher volatility has been synonymous with a wider range of realized annual returns as we move from the lowest to highest risk profile, the median historical annual return of the highest risk (aggressive growth at 10.7%) was almost double that of the lowest risk profile (capital preservation at 5.6%).

5th, 50th and 95th annual return percentiles (September 1986 to December 2022)

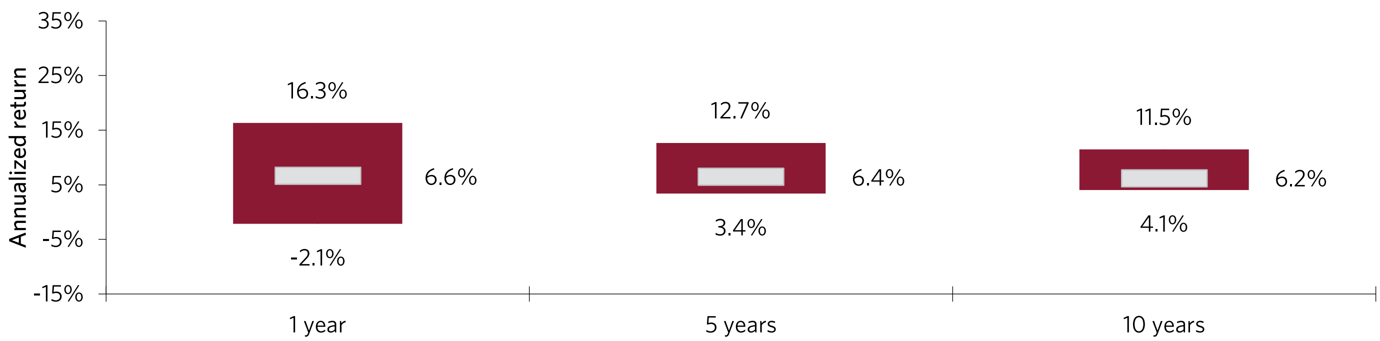


Source: CIBC Asset Management Inc. Based on data available at December 31, 2022.

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 – December 2022)



Source: CIBC Asset Management Inc. calculations (projections based on data available as of December 31, 2022).

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 3.9% over the past 36 years. But in recent years, this return has been much less attractive; it was just 0.9% since January 2009. In addition, the income profile had only a 5% chance of an annualized return of less than 3.4% over any five-years window over our 36-year historical sample. In other words, over the last 36 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 aggressive growth experiencing at least one 5-year negative outcome in our 36-year sample. Using 10-year rolling samples, only aggressive growth has experienced an instance of a negative outcome; returns for all other profiles were consistently positive.

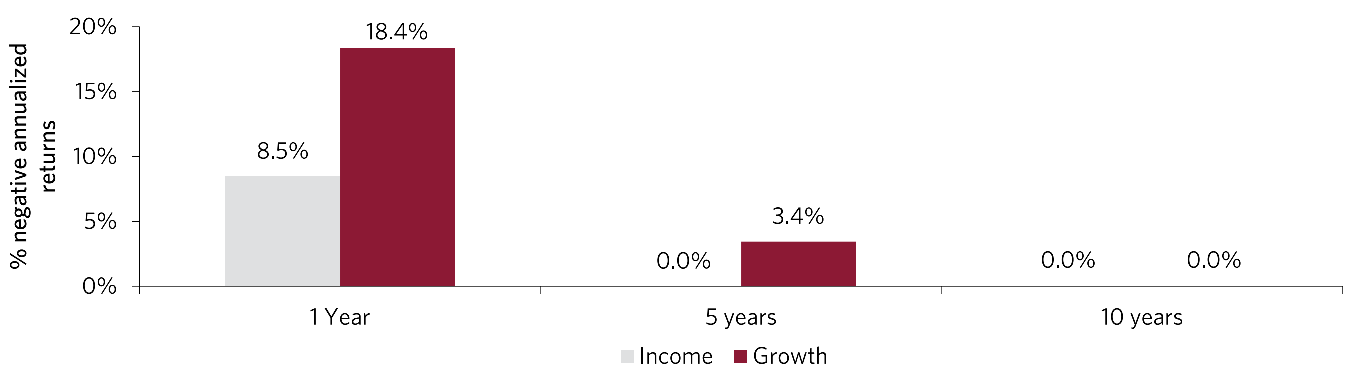
Annualized return variability (September 1986 – December 2022, in %; not annualized if less than 1 year)

	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	-0.2	12.5	1.8	11.1	3.5
Income	5.5	-5.7	7.9	-7.4	14.0	-11.1	23.2	-8.7	17.1	0.6	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
Aggressive Growth	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. CIBC Asset Management calculations based on data available as of December 31, 2022.

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 8.5% and 18.4%, respectively. These probabilities decreased to 0% and 3.4%, 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 the alternative of 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 2022)



Source: CIBC Asset Management Inc. based on data available as at December 31, 2022.

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.

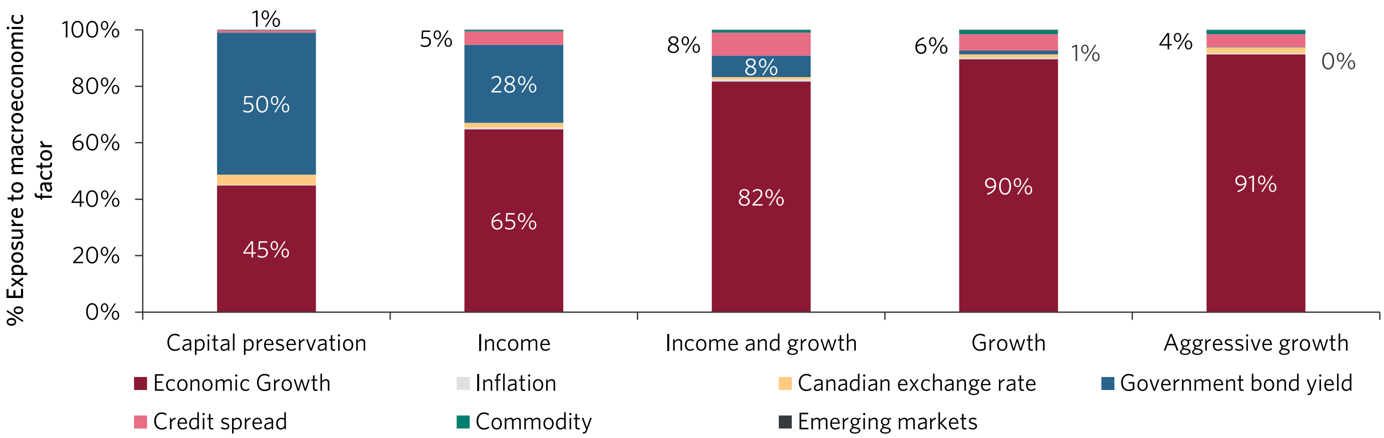
It's also important to go beyond simple asset class names and understand the make-up of a portfolio in terms of its exposure to risk factors and return drivers. Breaking down a portfolio's expected performance in this way is a sophisticated risk-management tool that allows us to adjust a portfolio's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

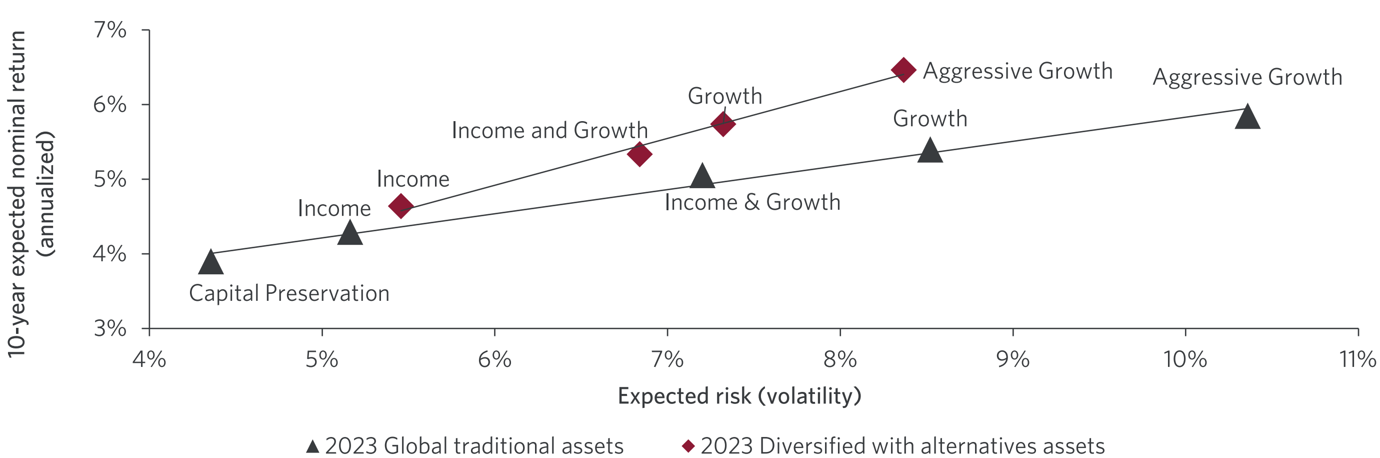
Data labels are economic growth, government bond yield and credit spread[8]



Source: CIBC Asset Management Inc. Based on data available as at December 31, 2022.

As highlighted in the chart below, adding diversifying asset classes that rely less on economic growth to the aggressive growth portfolio reduces its historical annualized volatility to 8.4% from 10.4%, and boosts its annualized expected return to 6.5%, from 5.8%. Thoughtful diversification can be very impactful to long-term performance.

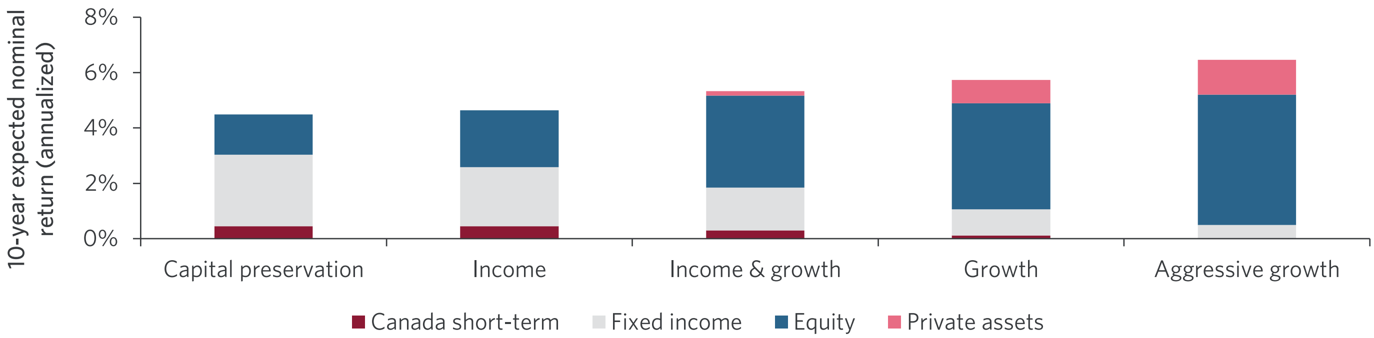
2023 Traditional global assets portfolio's expected nominal return and volatility vs. diversified with alternatives portfolio's expected return and volatility



Source: CIBC Asset Management calculations (projections based on data available as at January 31, 2023.

Adding diversifying asset classes ensures that not only are the drivers of risk spread out across various macroeconomic and fundamental factors, but also that portfolios benefit from a broad array of return levers to generate wealth, as shown in the chart below.

2023 Total contribution to 10-year expected nominal return within the diversified with alternative assets portfolios



Source: CIBC Asset Management calculations (projections based on data available as at January 31, 2023.

Asset class descriptions, purpose in a long-term strategic asset allocation and outlook[9]

A key input to our strategic asset allocation process are the CIBC Asset Management 10-year forward-looking hypothetical expected nominal return estimates, presented in CIBC Asset Management's long-term expected returns for capital markets report, available in English and French. These hypothetical expected returns are calculated using the following framework:

RETURN = Current income + Growth in income + Change in value

Where:

- [current income] is the coupon yield (fixed income), or the dividend yield (equity).
- [growth in income] refers to earnings growth. This only applies for equity.
- [change in value] is the impact of varying interest rates (fixed income), or cyclically adjusted P/E ratios converging towards their long-term equilibrium value (equity).

Expected volatilities are calculated using the last 10 years of data, which captures multiple economic cycles. An excessively long timeframe may inadequately capture structural changes to asset classes. Conversely, a timeframe that is too short may not capture asset class idiosyncrasies over a full business cycle.

Our analysis of hypothetical expected returns and volatilities is updated annually.

Expected returns and volatilities, as well as advanced analytics and optimizations, help us determine optimal asset allocations and portfolios. These are supplemented with deep fundamental insights of asset class characteristics and behaviours less easily captured by quantitative analysis. This integration of quantitative techniques and thoughtful judgment ensures purposeful portfolio construction and diversification of underlying drivers of return and risk.

Some investors have an investment time horizon shorter than 10 years, and the path of asset class returns is rarely linear. In the table below, we outline each asset class's structural purpose in a long-term strategic asset allocation. We supplement this information with our near-term outlook for each one, as a guide for investors with shorter investment horizons, sensitivity to different types of risk, or other investment constraints.

Asset class	10-year expected nominal return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
Canadian fixed income	3.50%	4.90%	Publicly traded bonds issued by domestic or foreign governments and corporations provide stable income and expected returns, including from 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 the 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.	**Neutral:** government bond yields are expected to remain broadly range-bound over coming months. The prospect of recession would typically cause yields to decline if this leads to central bank policy rate cuts. But inflation data still above central bank target rates is currently pulling in the opposite direction. We are positive on the shorter end of the corporate curve, with maturities below 5 years, where there are attractive yields offered by high-quality issuers. Longer maturity corporate bonds remain less attractive, for instance reflecting valuations and cyclical economic risks.
Global fixed income	2.70%	8.30%		**Cautious and selective:** recession and inflation risks are also relevant to non-domestic bonds. This suggests a broad range for yields in most markets, outside of Japan. The impact of policy decisions from the European Central Bank (potential for more aggressive policy action than expected) and Bank of Japan (end of the current yield curve control policy, and a higher bias in yields) may increase near-term volatility in global bond markets.
High yield and floating rate debt	5.03%	7.40%	High-yield bonds exhibit both debt and equity characteristics through 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.	**Cautious:** high-yield bonds remain vulnerable to the risk of economic recession, for instance via a rise in default risk. US high-yield spreads hit their post-covid peak mid-2022 and have since narrowed as markets appear to be pricing a relatively benign cyclical outlook. We think this is too optimistic, and therefore see a risk of spread widening from here. On a longer-term basis, high yield appears attractive. Investment-grade bonds appear to offer better value than high yield in the near term and also typically exhibit lower volatility.

<table>
<tr><th>Asset class</th><th>10-year expected nominal return (annualized)</th><th>Expected volatility</th><th>Purpose in long-term strategic asset allocation</th><th>Near-term outlook</th></tr>
<tr><td>Emerging Market (EM) bonds</td><td>8.29%</td><td>7.80%</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 provide an additional source of return enhancement.

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>6.60%</td><td>11.90%</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, including 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: downside risks remain for international and US equities in the near-term.

P/E ratios have declined from extremely high levels but remain expensive given the weak cyclical economic outlook and high inflation. Bottom-up consensus forecast for earnings also appear too optimistic, given the cyclical economic outlook.

Focusing on the longer-term provides a brighter perspective. Valuations are beginning to reach healthier levels for the start of the next bull market that will commence once the cyclical economic environment begins to improve.</td></tr>
<tr><td>US Equity</td><td>4.13%</td><td>12.20%</td></tr>
<tr><td>Canadian Equity</td><td>6.76%</td><td>12.50%</td><td>Cautious: Although also challenged by near-term cyclical economic risks, the outlook for Canadian equity is relatively more attractive. Index composition could be helpful to relative performance, with a focus on dividend payers, and high index weights to sectors including energy and financials, whose valuations both appear relatively attractive from a long-term perspective.</td></tr>
</table>

Asset class	10-year expected nominal return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
EM equity	10.65%	13.30%	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, including as a result of geographic diversification. Emerging markets are relatively inefficient. This reflects the relative lack of participant investors. Market inefficiencies provides a persistent opportunity for skilled active investors to achieve outsized returns versus a passive index.	**Cautious:** cyclical economic headwinds present a near-term challenge for emerging markets. But long-term valuations appear relatively attractive.
Liquid alternatives	7.96%		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.	**Neutral:** liquid alternative absolute return strategies are intended to perform relatively well in most market environments. This expectation reflects the breadth of asset classes and investment opportunities they span.

Asset class	10-year expected nominal return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
Global infrastructure	5.89%	14.9%	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:** The prevalence of contractual inflation adjustments make infrastructure an attractive asset class in the current inflationary environment. Utilities and energy companies are less affected by consumer spending swings and are naturally well-positioned to weather inflation. The transition to renewable energy will also drive investment into these sectors. Political, regulatory, and commercial risks inherent in the execution of infrastructure projects remain the largest bottlenecks for global diversification in this asset class. As supply chain constraints get resolved, infrastructure is expected to be one of the beneficiaries. A key opportunity is the growth of infrastructure investments in data. Examples include opportunities arising from global 5G rollout, fiber optics, and data centers.
Private real estate	5.87%	9.02%		**Cautious and selective:** the real estate sector faces pressure on cap rates, and cyclical economic risks suggest near-term volatility. Managers able to engage in opportunistic assets alongside core and non-core real estate allocations, as well as those who can proactively rotate into real asset sub-strategies with higher expected return/risk profiles, will be better positioned to generate meaningful outcomes. COVID-19 accelerated themes around remote working have created tailwinds for industrial and multi-family property sectors, but a headwind for retail and office spaces. The most challenged sub-sector within private real estate in 2023 is expected to be old office assets that have associated refinancing risks. Scope for flexible working will be an important differentiator of winners from losers as leases roll.

Asset class	10-year expected nominal return (annualized)	Expected volatility	Purpose in long-term strategic asset allocation	Near-term outlook
Private credit	6.30%	6.77%	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:** private credit exposure diversified across opportunities, strategies, and portfolio companies, while focused on minimizing concentration and default risk, is attractive in the current environment. Market volatility and a rising-interest-rate environment continue to create significant opportunity in the senior direct lending space. These loans are typically secured first-lien positions to corporate assets and cash flows. A 4:1 ratio in favour of direct lending deals executed in the private credit space versus public supports this asset class because of the long-term nature of the capital raised. We expect this trend to continue.
Private equity	8.01%	7.92%	Private equity refers to capital investments in companies that are not publicly traded or listed on a public stock exchange. Investments range from financing of start-up entities, to providing growth equity to an expanding private company. Private equity funds also often purchase—or buyout—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:** investing in recession-era vintages at more attractive valuations is expected to generate robust returns through growth and multiple expansion. There may be continued near-term headwinds for private equity from recession risk and tight credit markets. Private equity was one of the biggest beneficiaries of a low interest rate environment in the wake of the Global Financial Crisis that drove asset valuations higher. The current higher interest rate regime limits the likely pace of new investments as it represents an offset to more attractive valuations. Rigorous manager research is a key factor in identifying winners. 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.

Portfolio construction insights

Interest rates: not a reliable indicator for style tilting

Value vs. growth

In our recently published paper *When Interest Rates Rise, Tilt Towards Value and Away from Growth? Not So Fast!*, we examined the performance of value and growth equity style indices, with a particular focus on periods of rising interest rates. Despite common wisdom, using more than four decades of data, our research did not find any evidence that either value or growth style equities persistently outperform during rising rate periods. More broadly, there has been little difference in the long-term performance of these styles, suggesting that investors should build equity allocations with a core focus that embraces both value and growth.

We also factored in the differences in standard deviation between the two investment styles, which can impact long-term performance. For investors who are concerned with volatility, in addition to simply the highest returns, the benefits of a core approach to equities become clearer. While style-tilted portfolios may outperform over various periods, on a risk-adjusted basis the performance differential has been statistically insignificant over 40 years.

As with market timing, we conclude that style-based tactical tilts are not recommended in investor portfolios. Despite outperformance of growth over much of the last decade—usurped more recently by value—we believe a core portfolio combining growth and value is the best approach to minimize regret around long-term performance.

Read the full thought leadership paper in English or French.

Private market alternatives can enhance investment outcomes

Continued strong growth of private market alternatives offers a significant opportunity to enhance expected portfolio performance. This includes tapping into diversifying sources of expected return and income not accessible from traditional public market buy-and-hold strategies. It can also include diversifying private market strategies that mitigate portfolio volatility, and others that hedge various risks to which traditional portfolios are keenly exposed. Most obviously, investing in real assets—real estate, commodities, infrastructure—provides investors with a greater ability to hedge the impact of inflation on portfolio performance. The expected outcome from investing in a range of private market alternatives to complement existing holdings of public market assets is stronger, smoother long-term expected performance.

The smoothness of returns to private market alternatives can help minimize the incentive for investors to try to time market participation. Keeping clients invested and focused on long-term objectives historically has helped maximize the probability of achieving performance targets and minimized the magnitude of the so-called ‘investor gap’—the shortfall in performance that occurs when investors miss the best performance days.

Market growth has enabled a range of investors—from ultra-high net worth individuals to large institutional pension plans—to allocate an increasing amount of portfolio capital to private market alternatives. Retail investors are at an earlier stage of participation. This includes both the size of allocations to alternatives within overall portfolios, as well as the sophistication of available solutions. For instance, many retail investors active in real estate and infrastructure participate via real estate income trusts (REITs) or listed funds that provide access to these opportunities via publicly listed securities, rather than unlisted private market vehicles. Retail participation is expected to evolve and grow over time alongside continued market development.

The most important private market alternatives include private credit and equity funds, real assets such as private real estate and infrastructure, natural resources, and farmland, which can help investors hedge inflation risks. Hedge fund absolute-return strategies can also provide diversification, including during periods of equity drawdowns (hedge funds can often be successfully replicated using liquid alternative strategies). Each alternative strategy can be sub-divided into an eclectic set of distinct investment opportunities and risks. They each serve a specific role in investor portfolios. Allocating to some or all of these opportunities, alongside public equities and fixed income, allows investors to diversify and enhance the expected performance of a traditional balanced portfolio

Private market alternatives are not a panacea. They are very different to public markets and are not appropriate for all investors given the effort and risk tolerance needed to participate. Their positive attributes come at the cost of less transparency and regulation, higher complexity, and often higher fees. They are often relatively illiquid and generally cannot be traded easily in the same way as public equities and bonds. For many investors, the expected benefits outweigh these costs, but this is not always the case. Investors should consider both the potential costs and benefits of choosing private markets before making the decision to invest.

Given the complexity associated with many private market strategies, we recommend particularly detailed scrutiny and selectivity ahead of any decision to invest. This includes a rigorous manager research process in which products are monitored to gain a thorough knowledge of the management team and product features. This helps to identify risks and gain confidence in the product's ability to deliver on expected performance patterns and investment objectives.

Read more on this subject in English or French.

Light at the end of the tunnel—Analysis of recoveries from drawdowns

Equity and bond returns were negative in 2022. This has only happened 4 times in the last 100 years. In the middle of a market downturn, it's tempting to lean towards pessimism and focus on how long and intense the pain of loss may last. Instead, we consider the more productive and positive view, as we ask how quickly equities and bonds will fully recover all ground lost in 2022. We turn to statistical analysis to help map out the potential path of the next bull market recovery, using the five LTSAA investor profiles. Unsurprisingly, all these profiles experienced a capital drawdown during 2022, with a modest recovery since the middle of the year. Our simulations suggest it typically takes portfolios between 18 and 23 months to recover from drawdowns at least as large as those experienced in 2022. This implies a full recovery of portfolio capital at some point during the second half of 2024—provided investors remain fully invested.

This conclusion does not say anything about the path to full recovery. In the most optimistic outcome, the market recovery seen in early 2023 could continue broadly unabated. Alternatively, we could first experience another marked correction before seeing a sustained recovery back to the previous market peak and beyond. This is an outcome we have been tactically positioned for in our managed solution portfolios.

Either way, focusing on the longer-term outlook provides a relatively bright perspective and an opportunity for investors to consider starting to put any additional capital to work.

To read the full thought leadership paper: *How quickly could investors see their portfolio performance recover?* in English or French.

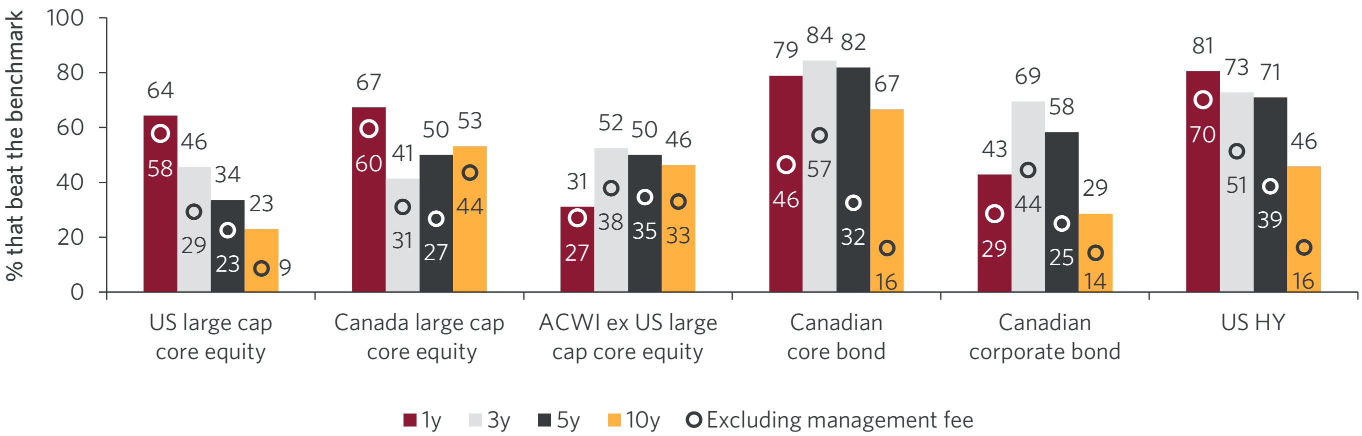
Remain open-minded, yet selective: blend high-conviction active managers with passive funds

Active vs. passive

In 2022, many active managers in the US and Canada performed better against their benchmark. This is in contrast to weak active manager performance seen over most of the last decade, especially in the US. Much of that historical underperformance was a key lightning rod of several widely-read active management scorecards that dispute the value of active management.

Using the eVestment universes, which collect institutional performance data from thousands of investment managers, we conducted our own analysis of active management performance across various categories and time periods. We looked at performance both gross of fees and after subtracting the average institutional management fee. This is a truer test of active management than using performance net of the total retail fund fee, which is a common methodology of widely read active manager scorecards. The challenge with using performance net of retail-fund fees is that it often includes components beyond the payment to access active investment manager skill. These components represent a significant portion of the overall fee and include the valuable services of advisor advice, relationship management, and record keeping. This ultimately pollutes any measure of manager skill.

Active manager success rates, in %, across various eVestment universes[10] and time periods



Source: eVestment, data as of December 31, 2022. Benchmarks used in the active manager success rates analysis are: S&P 500 Index for US Large Cap Core Equity; S&P/TSX Composite Index for Canada Large Cap Core Equity; MSCI ACWI ex US Index for EAFE® Large Cap Core Equity; FTSE TMX Canada Universe Bond Index for Canadian Core Bond; FTSE Canada Universe Corporate Bond Index for Canadian Corporate Bond; and ICE BofA ML US High Yield Index for US high-yield bonds.
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Over the last decade, a majority of active managers in the US large cap core equity universe underperformed the benchmark; this underperformance can be partly explained by investment context, where the market was driven by a narrow set of stocks ('Big Tech') at the top end of the market cap spectrum. When indices become more concentrated in a handful of stocks, it is easy to imagine that active managers who seek diversification as a best practice will face a serious headwind in a relative sense. This was also true within the Canadian large cap core equity universe. However, as the narrow set of large-market cap names sold off, many active managers were able to create benchmark-relative value for their clients.

So, is active management back? We would argue that the devil is in the details. It goes without saying that some active managers will perform better than others; some environments will make active management more favourable than others; and some managers will struggle to add value above any of benchmark returns, passive returns and any fee considerations. Therefore, selecting the right managers—and perhaps more relevantly, selecting the manager that aligns with one's strategic views—remains a critical component to successful portfolio construction.

Persistent broad-benchmark relative outperformance is scarce. Therefore, in our solutions, we balance active and passive strategies to enhance investment outcomes across a range of different economic and market environments. Purpose, structure, and fulfilment is the right ordering of priorities for investors using asset allocation. In other words, asset class exposure is priority number one. Finding a structure that aligns with one's thematic beliefs is number two. Whether a manager can provide active upside to these first two priorities should be the final consideration. Even if a manager fails to beat a benchmark, purpose and structure should still drive investors to success, as long as the manager's coefficient of determination (R^2) to the first two priorities is high.

The CIBC Asset Management Manager Research team[11] has the luxury of sourcing investment ideas from anywhere in the world and can agnostically explore if there are supporting first principles, supplemented with evidence, that suggest an active strategy can add value above and beyond the asset allocation. This ensures objectivity in the selection of the most suitable investments for portfolios.

Conclusion

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

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

We also described process enhancements. The newly created Portfolio Solutions Research Forum (PSRF) is the focal point of firm-wide initiatives on portfolio construction and solutioning. It has investment oversight responsibility for CIBC Asset Management Managed Solutions. Nurturing a solutioning mindset is a core element of our firm's efforts to broaden and deepen partnerships with our clients. This 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 mindset, CIBC Asset Management will 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.

[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 2023 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.

[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; 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] For more on our home bias view, see our whitepaper on this subject in English or French.

[5] Historical performance for each risk profile is calculated by historical returns for the component asset classes proxy indices, rebalanced monthly, with weights updated at each calendar year-end using strategic asset allocation recommendations based on *Long-term strategic asset allocation* papers (2016-2022). The historical allocations before 2016 are proxied by the 2016 strategic asset allocation recommendation.

[6] Proxy indices for these asset classes are: Bank of Canada 91 Day T-bill Index for Cash; FTSE Canada Short-Term Bond Index for Short-Term Fixed Income; FTSE Canada Universe Bond Index for Canadian Fixed Income; Bloomberg Barclays Global Aggregate Bond Index for Global Fixed Income; Bank of America Merrill Lynch BB-B US Cash Pay High Yield Index for US High Yield; JPM Emerging Markets Bond Index Plus for EM Bonds; S&P/TSX Composite Index for Canadian Equity; S&P 500 Index for US Equity; MSCI EAFE® Index for International Equity; EAFE® is a registered trademark of MSCI Inc., used under license; MSCI Emerging Markets Index for EM Equity; Dow Jones Brookfield Global Infrastructure Index for Global Infrastructure; Kensington Private Equity Fund Class G for Private Equity; Ares Capital Corporation (ARCC) NAV for Private Credit; NFI-ODCE Index for Private Real Estate.

[7] 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 U.S. High yield Master II Index for Sep 1986 – Aug 1988; S&P/TSX Composite Index for Canadian Equity; MSCI World Index for Global Equity.

[8] To calculate portfolio exposure to macroeconomic risk factors, we 1) calculate the marginal contribution to risks (MCTR) of each risk factors 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.

[9] Most expected returns and expected standard deviations for the component asset classes are based on 10-year forecast returns of CIBC Asset Management's Multi-Asset and Currency Team 2023 Expected Return Paper (English and French). There are some unique exceptions where the expected return and expected standard deviations are based on CIBC Asset Management's Total Investment Solutions Team. The exceptions include forecasting private equity returns based on the sum of 1/3 of the Canadian equity expected return and 2/3 of the US equity expected return, plus 3%; MAARs proxy based on money market and Canadian short-term fixed income plus 5%. Those asset class expected returns are not available from the Multi-Asset and Currency Team. Total Investment Solutions uses historical 10-year volatility of Kensington Private Equity Fund Class G for private equity, 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.

[10] eVestment collects institutional performance data from thousands of investment managers.

[11] Led by Philip Lee, Executive Director, Manager Research, Total Investment Solutions. Read more about the process here in English or French.

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