

Discussion Guide

City of Toronto (Investment Board)

2024 Q2



Table of Contents

Capital Markets Overview

Executive Summary

Asset Mix Compliance

Strategy Performance

Manager Updates

ESG Ratings

Thought Leadership Highlight

Appendix A

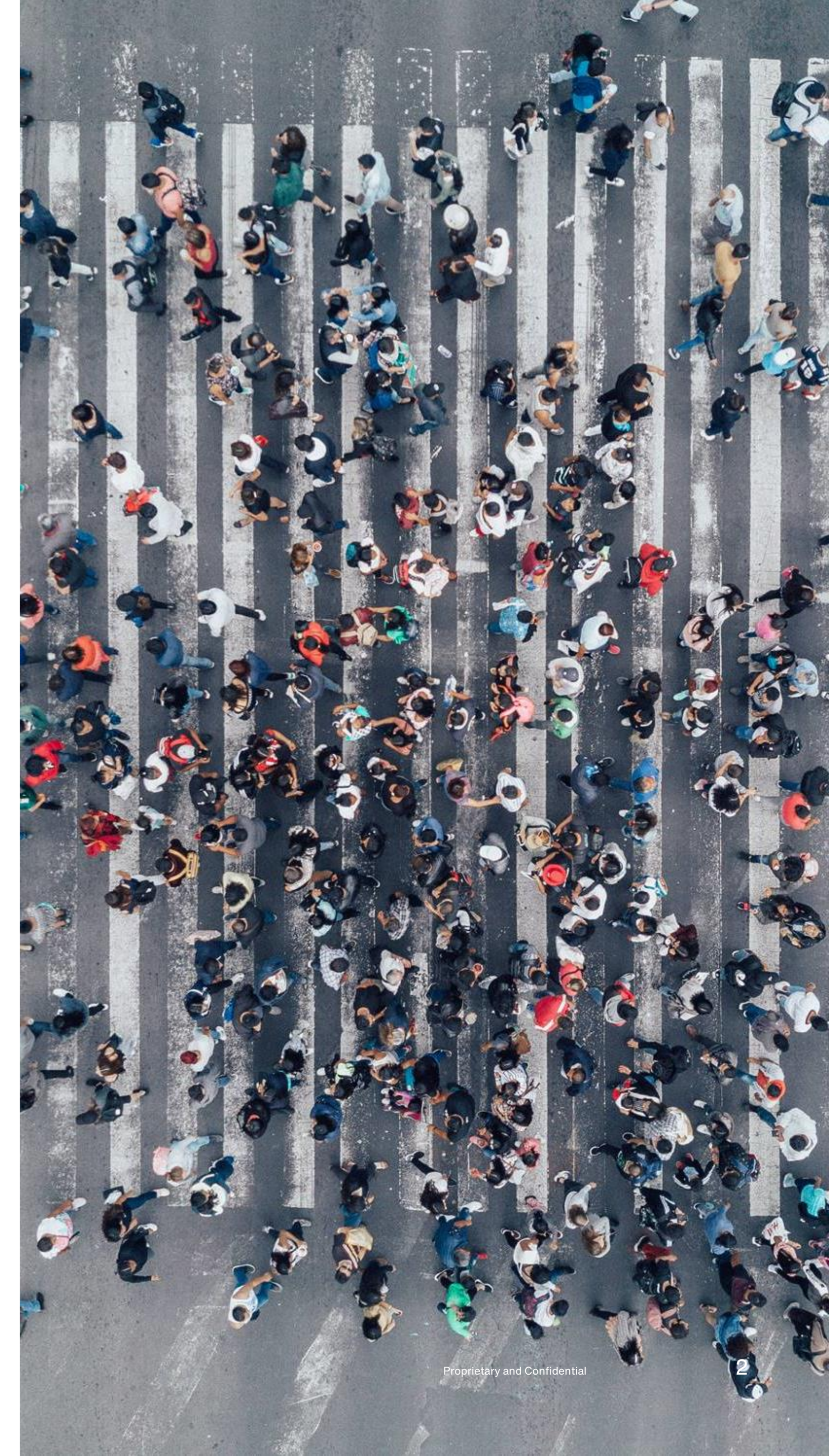
SciBeta Multifactor Benchmark
Performance Attribution

Appendix B

Asset Allocation Views

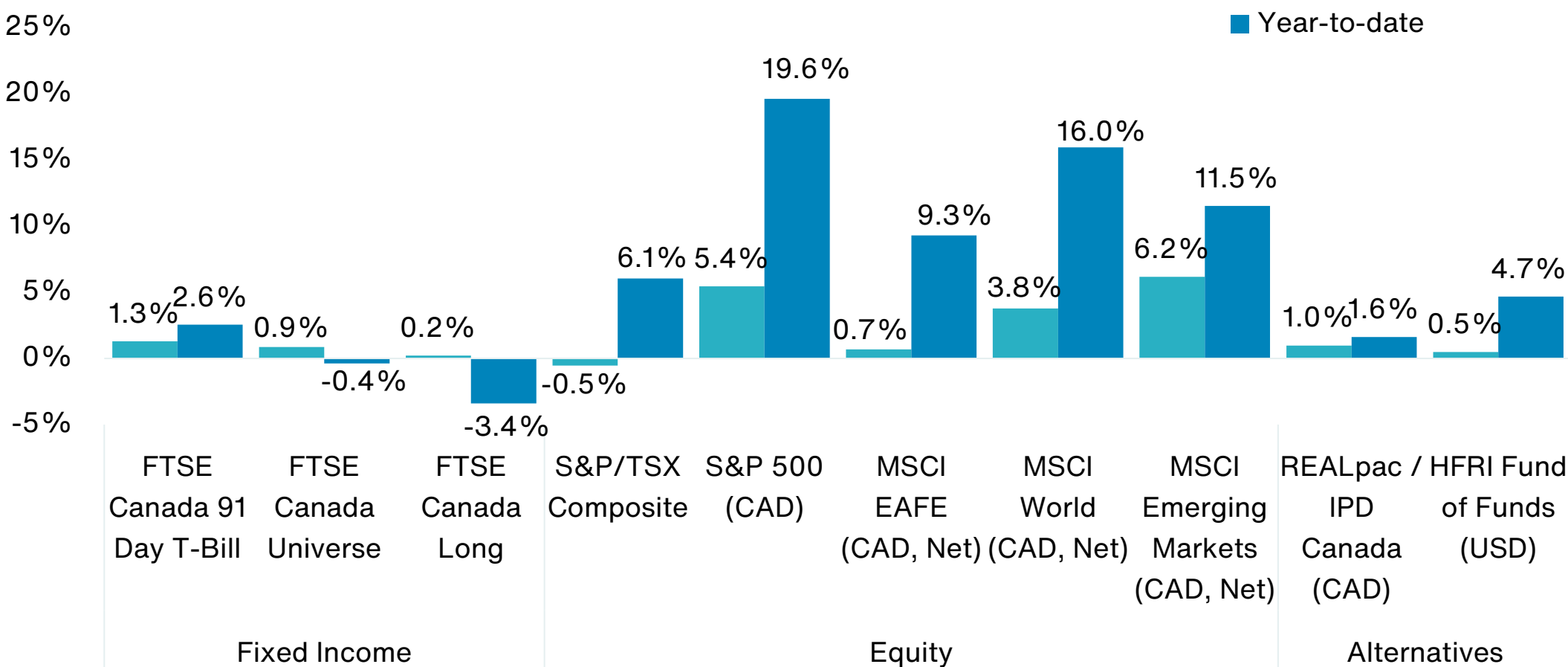
Appendix C

Thought Leadership



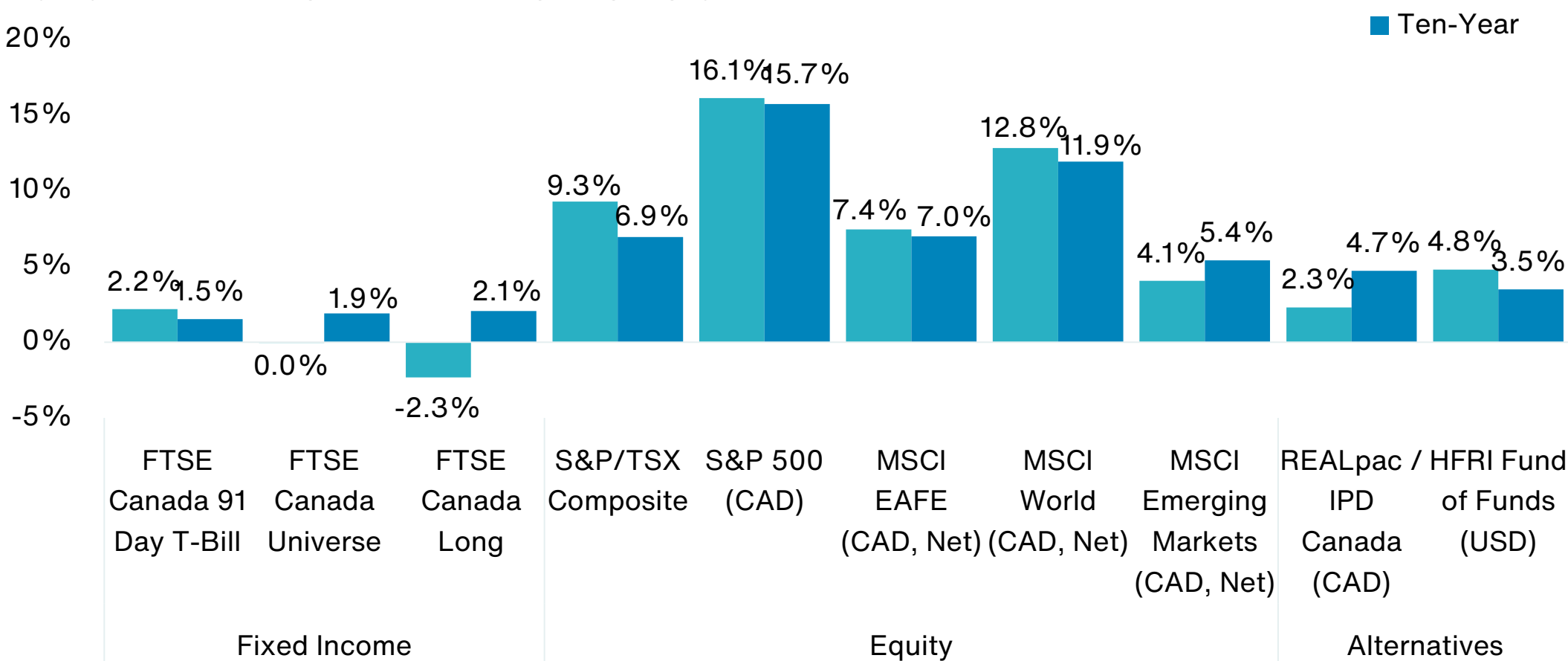
Capital Markets Overview

SHORT TERM RETURNS AS OF 06/30/2024



Sources: S&P, MSCI, IPD, FTSE. Unless it's otherwise stated, gross CAD returns are shown in this report.

LONG TERM ANNUALIZED RETURNS AS OF 06/30/2024



Sources: S&P, MSCI, IPD, FTSE. Unless it's otherwise stated, gross CAD returns are shown in this report.

- In Q2 2024, the global equity markets rose. The S&P 500 Index reached an all-time high, driven by a positive outlook on a solid earnings season, easing inflation data, signs of economic resilience, and rallies from the tech giants. Volatility fell slightly during the quarter as the CBOE Volatility Index (VIX) fell to 12.4 in Q2 from 13 in the previous quarter, staying well below its 20-year average of 19.1. The MSCI World Index rose 3.0% in local currency terms and 3.8% in Canadian dollar (CAD) terms.
- The Bank of Canada (BoC) cut its benchmark interest rate by 0.25% to 4.75% and announced that it was continuing to normalize the Bank's balance sheet. The Governing Council (GC) stated that it is closely watching the evolution of core inflation and focusing on the balance between demand and supply in the economy, inflation expectations, wage growth, and corporate pricing behavior. However, there was a rebound in inflation after the first rate cut, with Canada CPI posting an unexpected acceleration to 2.9% in May from 2.7% in April.
- The U.S. Federal Reserve (Fed) kept its interest rate unchanged at 5.25%-5.5%. The Federal Open Market Committee (FOMC) stated that the committee does not expect it will be appropriate to reduce the target range until it has gained greater confidence that inflation is moving sustainably towards 2%. According to the latest Fed "dot plot," the median FOMC member believes only one quarter-point cut this year is appropriate, compared to three rate cuts projected earlier in March.
- The Bank of England (BoE) kept its policy interest rate unchanged at 5.25%. The Monetary Policy Committee (MPC) voted 7-2 to maintain the current rate, with two members voting for a 0.25% rate cut. The MPC stated that it is ready to adjust monetary policy based on economic data to sustainably return inflation to the 2% target.
- The European Central Bank (ECB) reduced the policy interest rate by 0.25% to 3.75% as a result of lower inflation. ECB president Christine Lagarde emphasised that further rate cuts 'depend on the data'.
- The Bank of Japan (BoJ) maintained its interest rates of 0-0.1%. The Policy Board, by a majority of 8-1 decided to reduce its purchase of Japanese Government Bonds (JGBs) and allow for market dependent long-term interest rates.

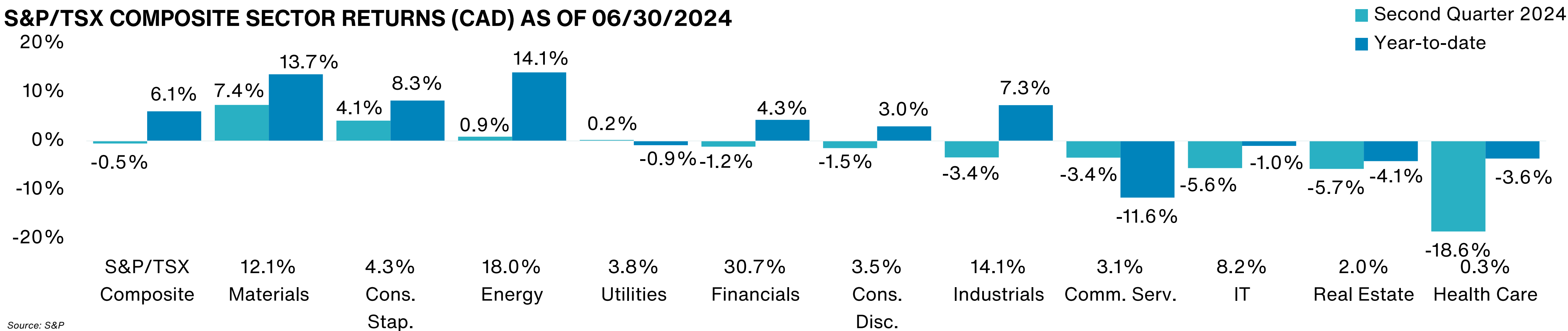


Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses.

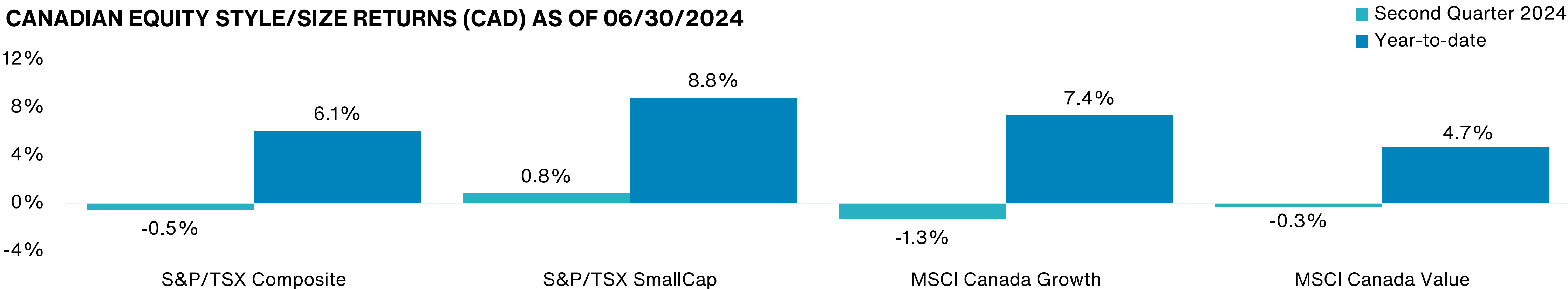
Capital Markets Overview

Canadian Equity

S&P/TSX COMPOSITE SECTOR RETURNS (CAD) AS OF 06/30/2024



CANADIAN EQUITY STYLE/SIZE RETURNS (CAD) AS OF 06/30/2024

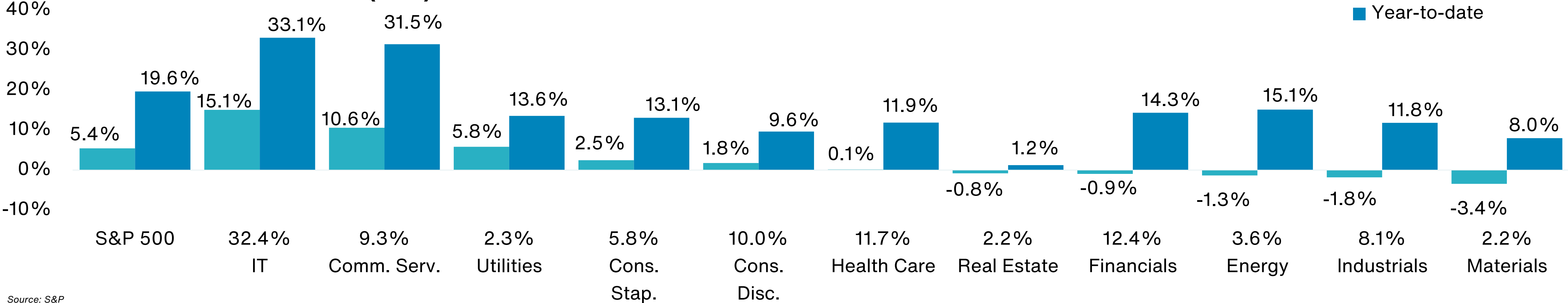


Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses.

Capital Markets Overview

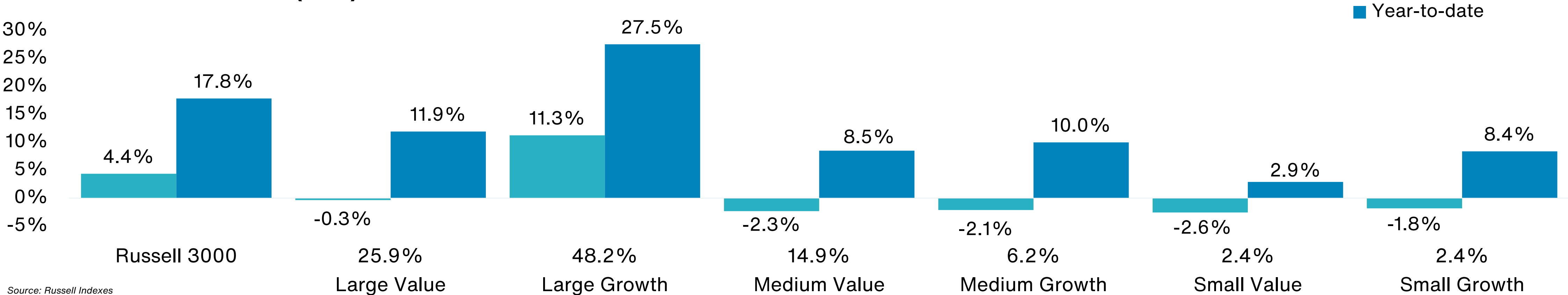
U.S. Equity

S&P 500 GICS SECTOR RETURNS (CAD) AS OF 06/30/2024



Source: S&P

RUSSELL STYLE RETURNS (CAD) AS OF 06/30/2024

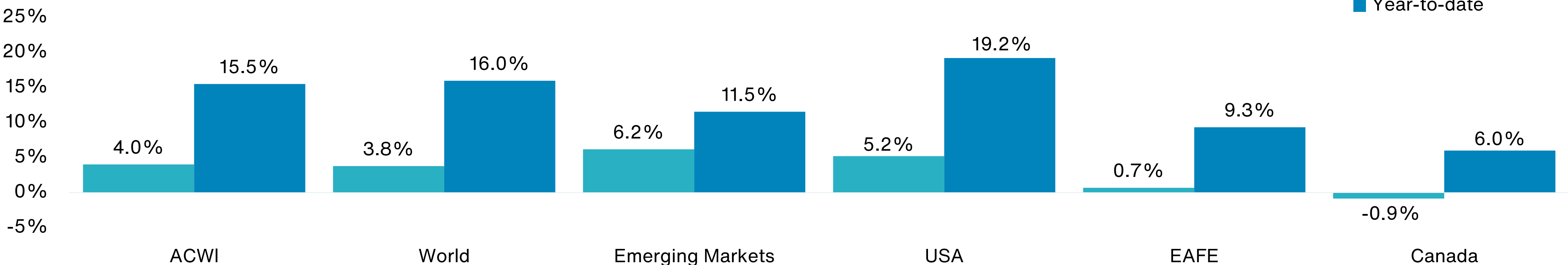


Source: Russell Indexes

Capital Markets Overview

Global Equity

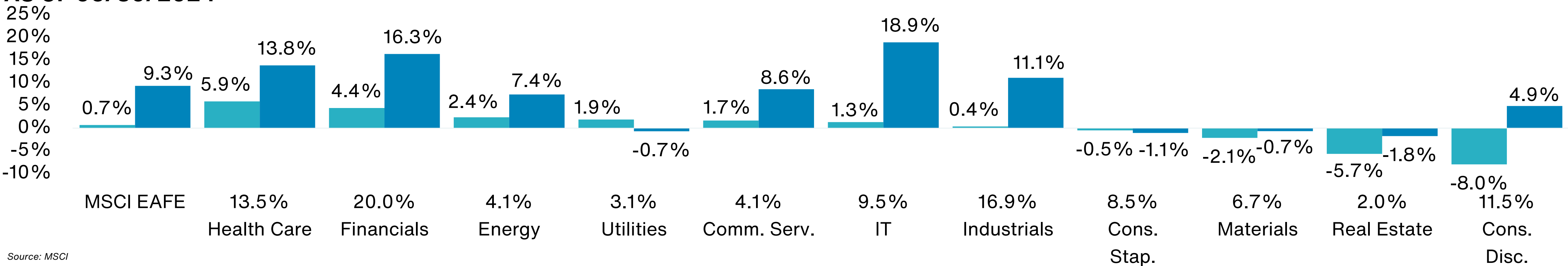
GLOBAL MSCI INDEX RETURNS (CAD) AS OF 06/30/2024



Source: MSCI. Gross returns shown for the MSCI Canada and USA indices, whilst net returns are shown for the other indices.

MSCI EAFE GICS SECTOR RETURNS (CAD, Net)

AS OF 06/30/2024



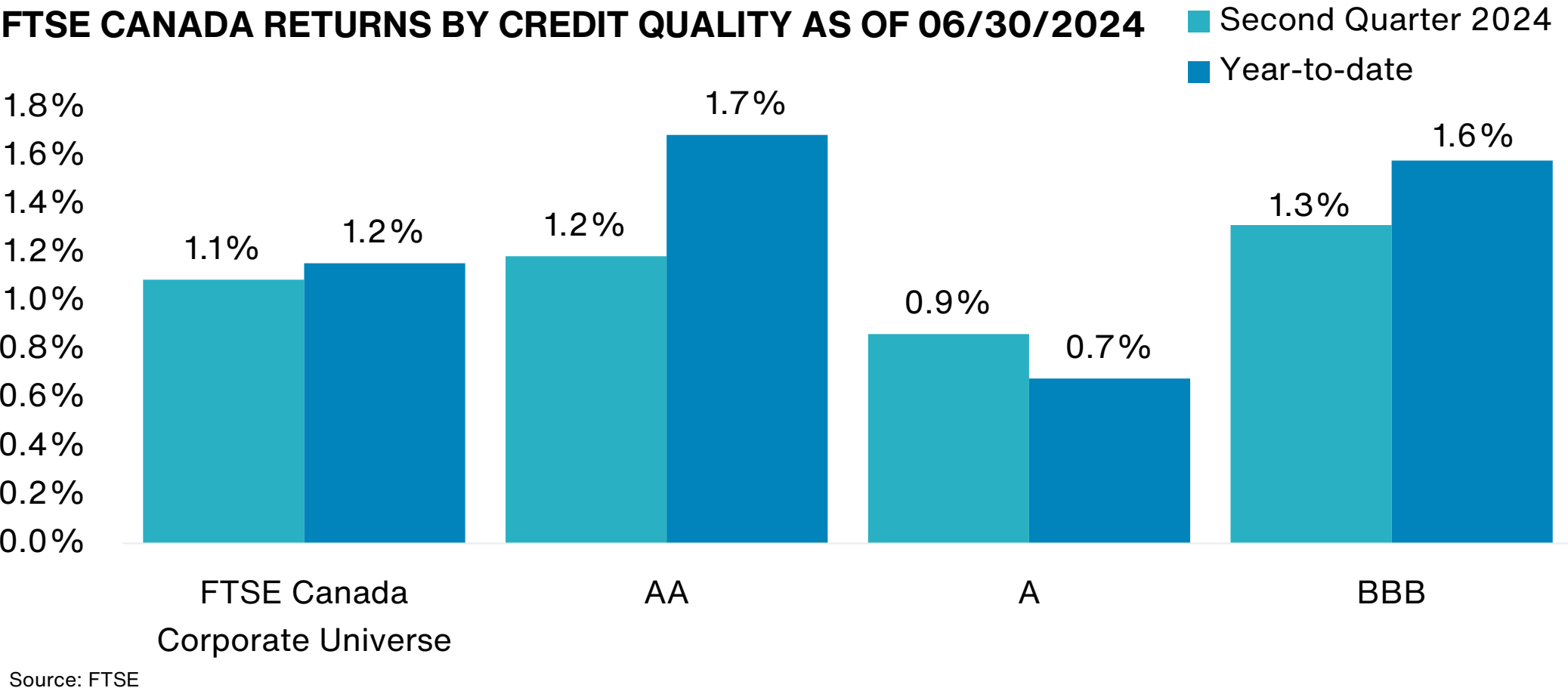
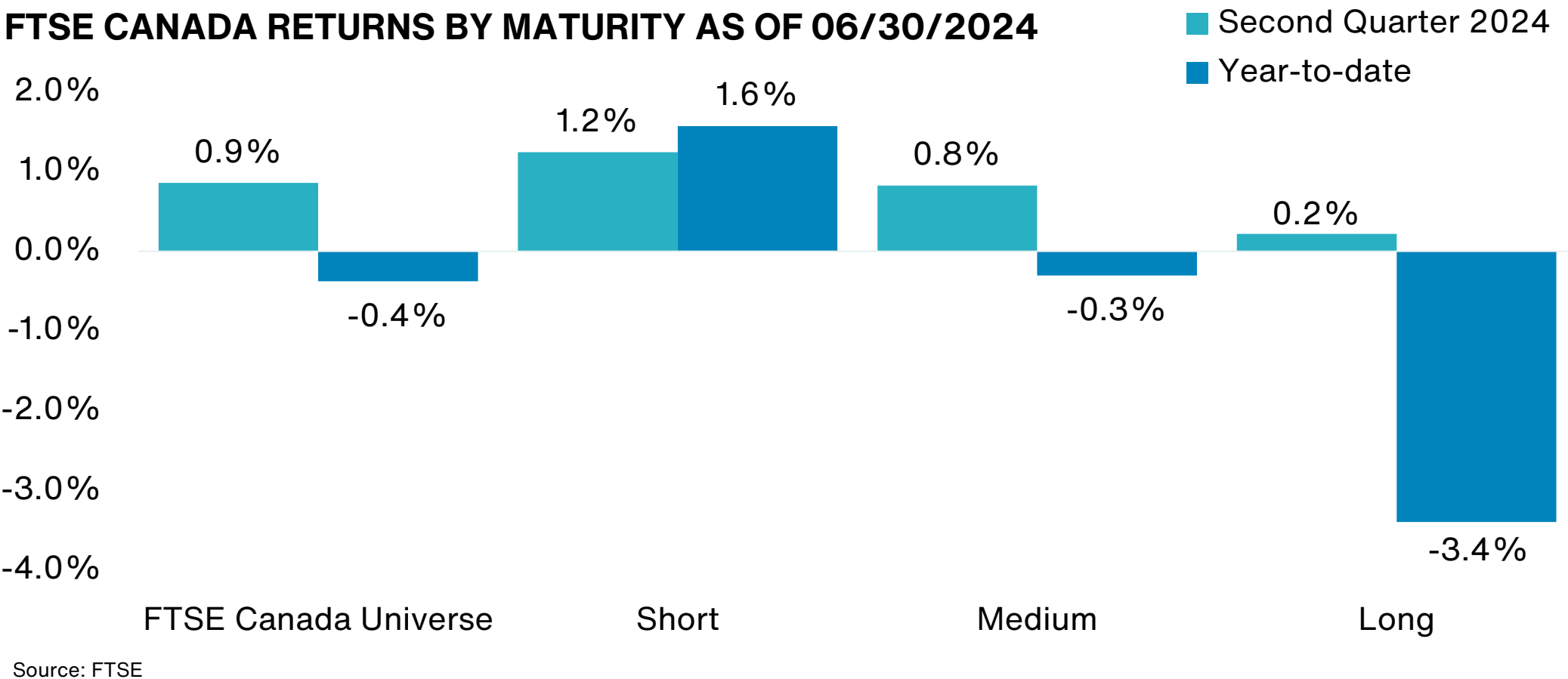
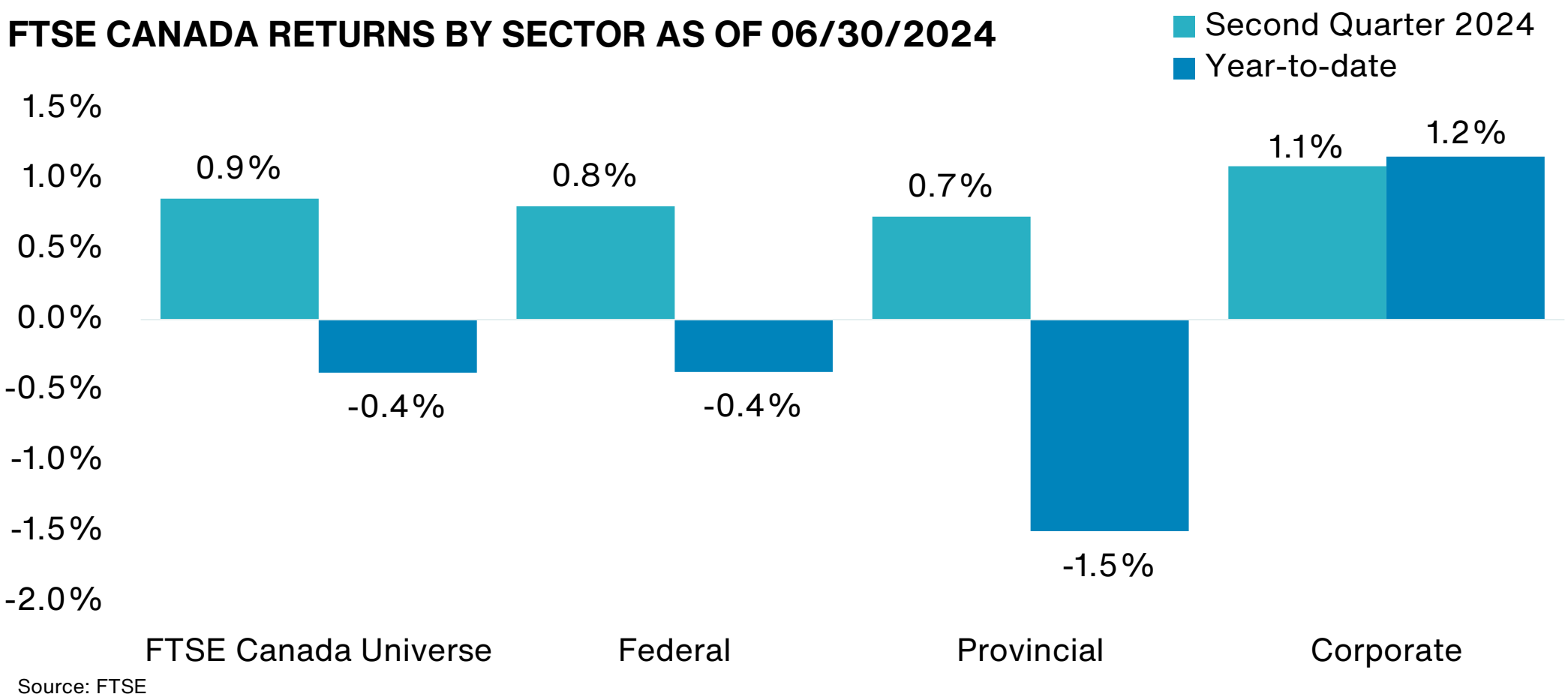
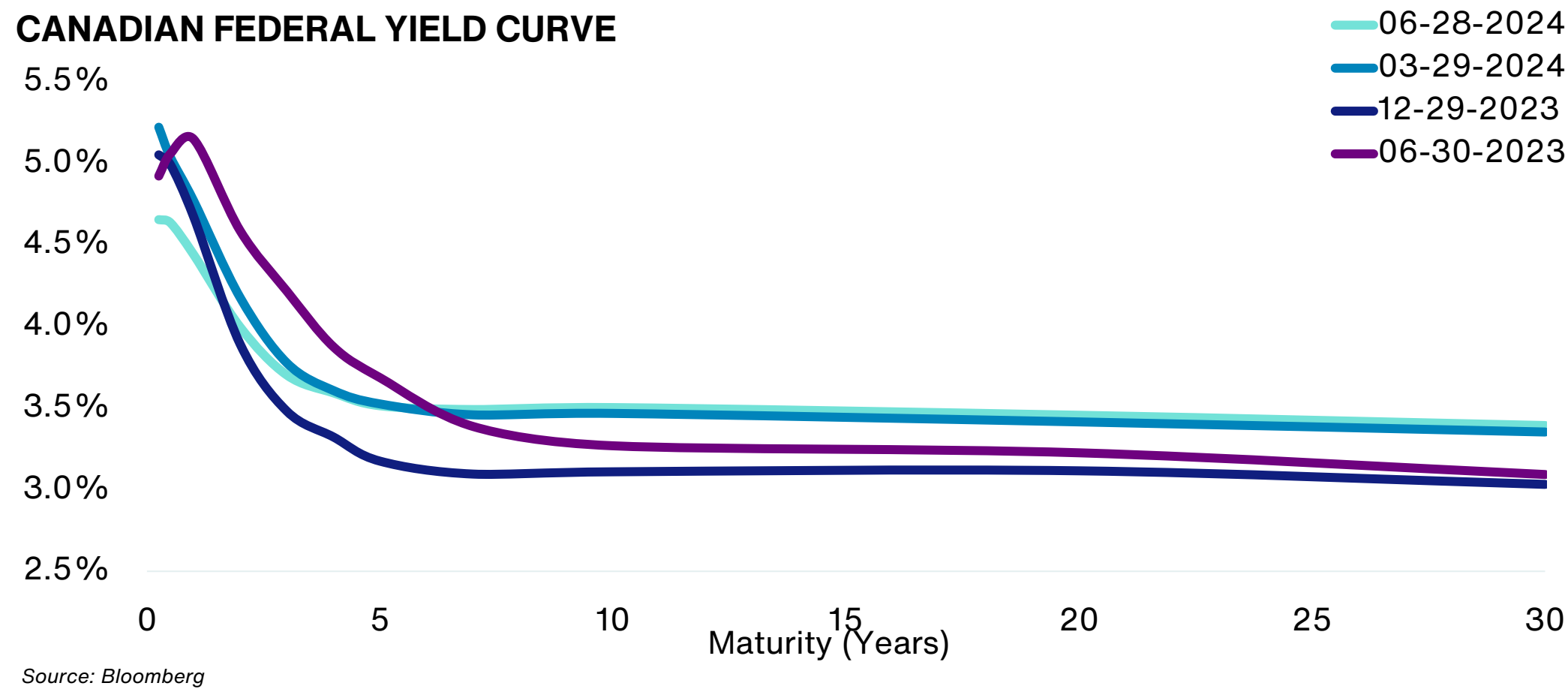
Source: MSCI



Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses.

Capital Markets Overview

Fixed Income



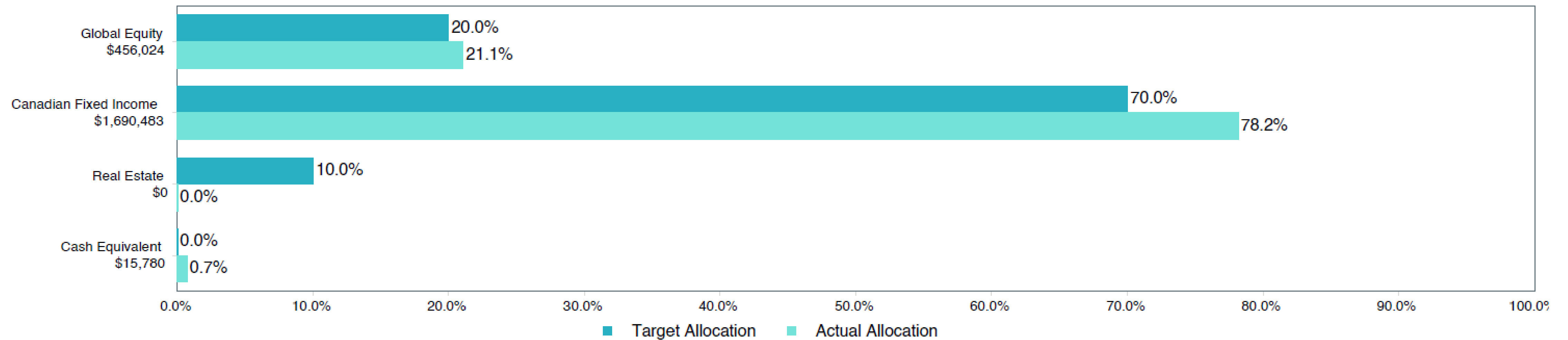
Executive Summary – Sinking Fund and Long-Term Fund

	Performance (%)			Market value (\$000)	Fees (bps)	Objective Met	Action Required
	Quarter	1 Year	4 Year				
Sinking Fund Return	0.4	5.8	-0.8	2,162,287	11.6	No	No
Sinking Fund Benchmark	1.3	6.2	0.2				
Value Added	-0.9	-0.4	-1.0				
Long Term Fund Return	1.1	7.8	1.8	4,638,711	14.9	No	No
Long Term Fund Benchmark	1.7	8.0	2.2				
Value Added	-0.6	-0.2	-0.4				

Asset Allocation Compliance

As of 30 June 2024 (\$000)

Total Sinking Fund

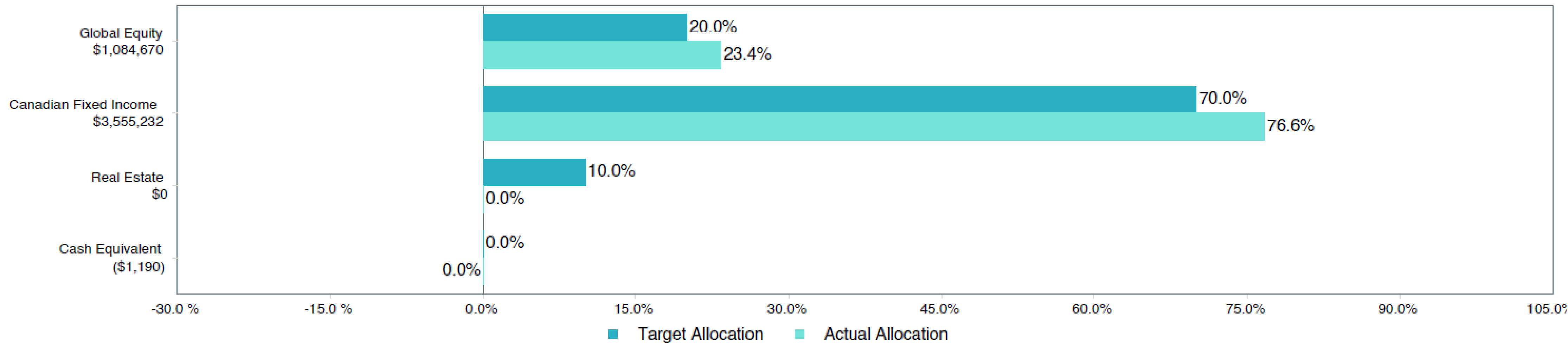


	Market Value (\$000)	Market Value (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)	Within Range
Global Equity	456,024	21.1	20.0	1.1	0.0	30.0	Yes
Canadian Fixed Income	1,690,483	78.2	70.0	8.2	50.0	100.0	Yes
Real Estate	-	0.0	10.0	-10.0	0.0	10.0	Yes
Cash Equivalent	15,780	0.7	0.0	0.7	0.0	5.0	Yes
Total Fund	2,162,287	100.0	100.0	0.0			

Asset Allocation Compliance

As of 30 June 2024 (\$000)

Total Long Term Fund



	Market Value (\$000)	Market Value (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)	Within Range
Global Equity	1,084,670	23.4	20.0	3.4	0.0	30.0	Yes
Canadian Fixed Income	3,555,232	76.6	70.0	6.6	50.0	100.0	Yes
Real Estate	-	0.0	10.0	-10.0	0.0	10.0	Yes
Cash Equivalent	-1,190	0.0	0.0	0.0	0.0	5.0	No
Total Fund	4,638,711	100.0	100.0	0.0			

Strategy Performance

Strategy	Rating	Value Added (%)		Action Required
		Quarter	SI*	
Addenda LDI	Buy	0.3	0.2	No
Fiera LDI	Buy	-0.1	0.2	No
CC&L Core Fixed Income	Buy	0.1	0.5	No
Leith Wheeler Core Fixed Income	Buy	0.1	0.6	No
Pier 21 Global Equity	Buy	1.0	0.0	No
Oakmark Global Equity	Buy	-6.3	-4.6	No
Fiera Global Focused Equity	Buy	-1.4	0.6	No
LGIM Multi-Factor Global Equity	Buy	-3.8	-3.3	No

*Since Inception Dates:

- Addenda LDI: 7/1/2019
- Fiera LDI: 7/1/2019
- CC&L Core Fixed Income: 7/1/2019
- Leith Wheeler Core Fixed Income: 7/1/2019
- Pier 21 Global Equity: 11/1/2019
- Oakmark Global Equity: 11/1/2019
- Fiera Global Focused Equity: 2/19/2020
- LGIM Multi-Factor Global Equity: 12/14/2020

Manager Updates

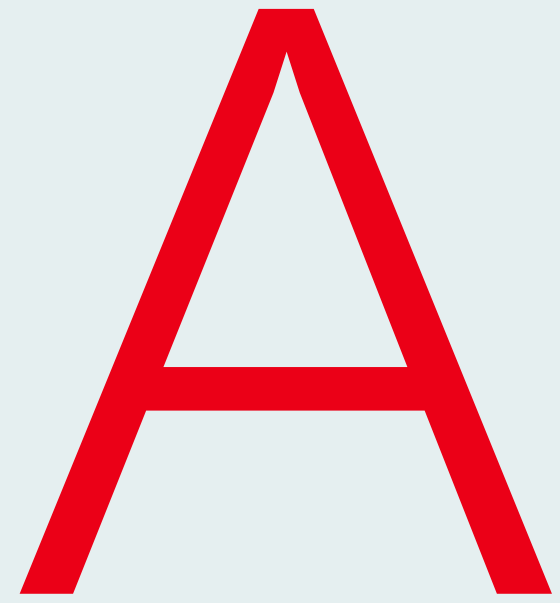
Manager Name	Quarterly Update	ESG Rating
Addenda	• No significant updates impacting City of Toronto	Integrated
CC&L	• No significant updates impacting City of Toronto	Integrated
Leith Wheeler	• No significant updates impacting City of Toronto	Advanced
Pier 21 (C. Worldwide)	• No significant updates impacting City of Toronto	Integrated
LGIM	• No significant updates impacting City of Toronto	Advanced
Fiera	• There were several personnel changes in Q1 2024, no significant updates impacting City of Toronto	Integrated

ESG Rating Scale

The rating assesses the integration of financially material ESG risk factors into the investment decision-making process.

The ESG factor is assigned a rating and can be interpreted as follows.

Rating	Description
Advanced (A)	The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate and potentially mitigate these risks across the entire portfolio.
Integrated (I)	The fund management team has taken appropriate steps to identify, evaluate and mitigate potential financially material ESG risks within the portfolio.
Limited (L)	The fund management team has taken limited steps to address ESG considerations in the portfolio.
Not applicable (N/A)	ESG risks and considerations are not applicable to this strategy, for example, on the grounds of materiality or asset class relevance.

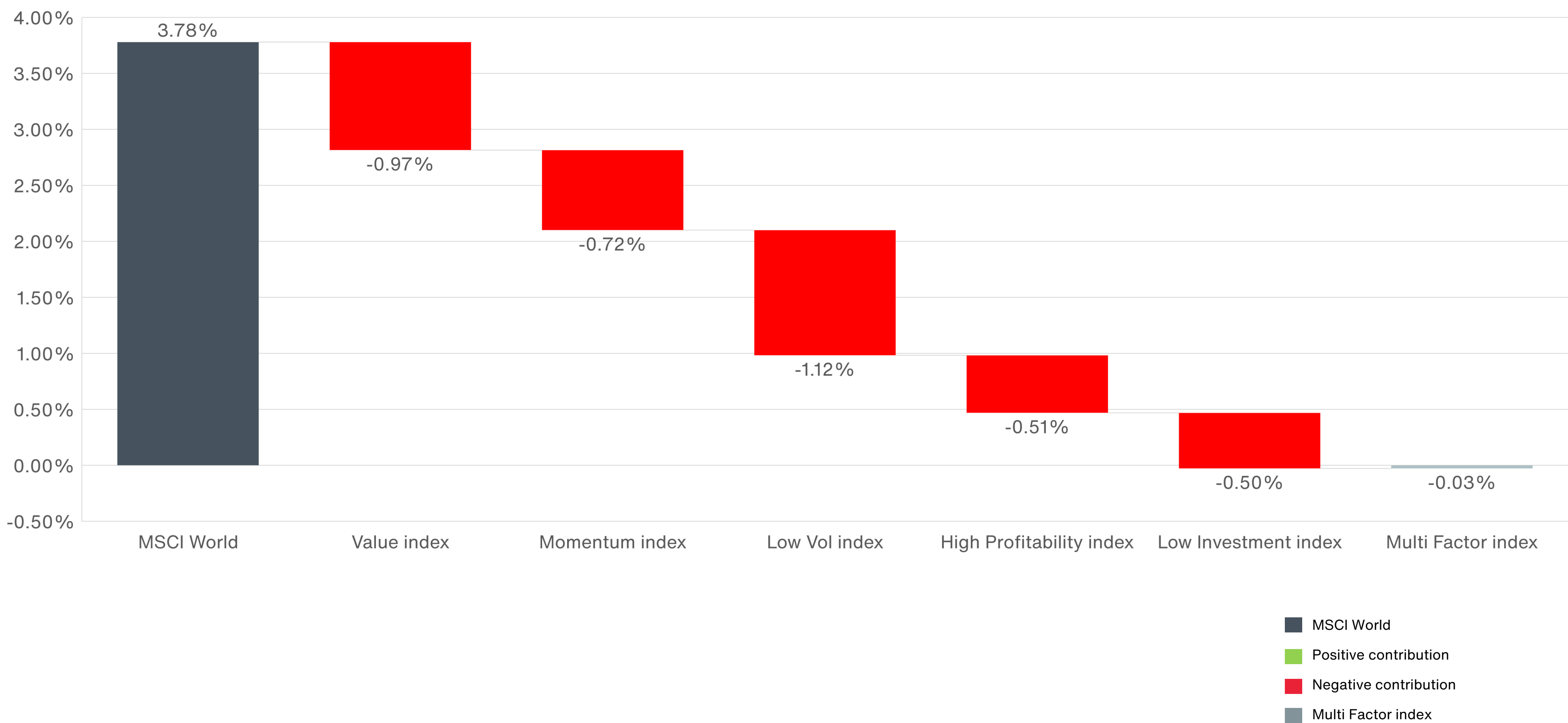


Appendix SciBeta Multifactor Benchmark Performance Attribution



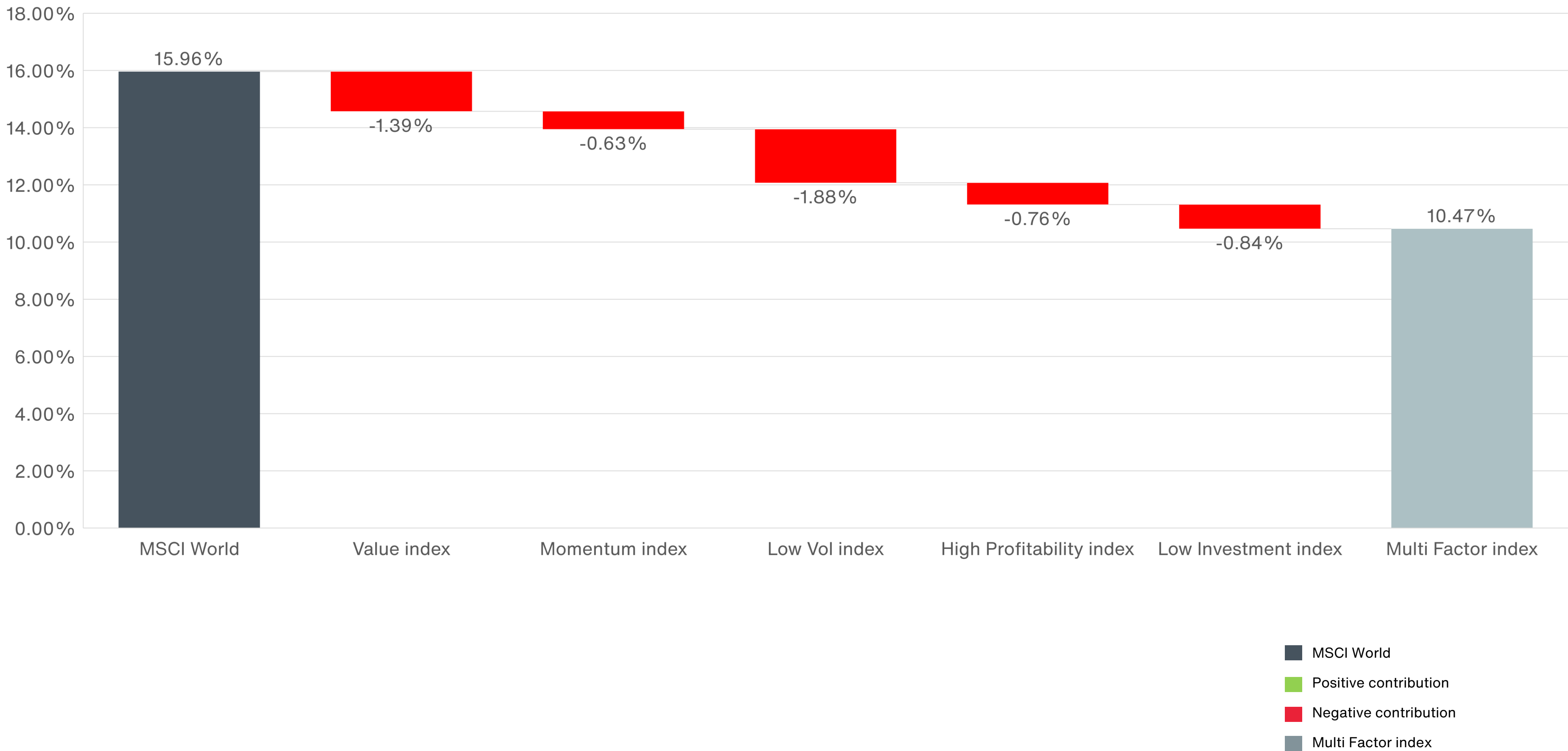
Performance attribution – Scibeta Multi-factor benchmark

1 Quarter – As of June 30, 2024



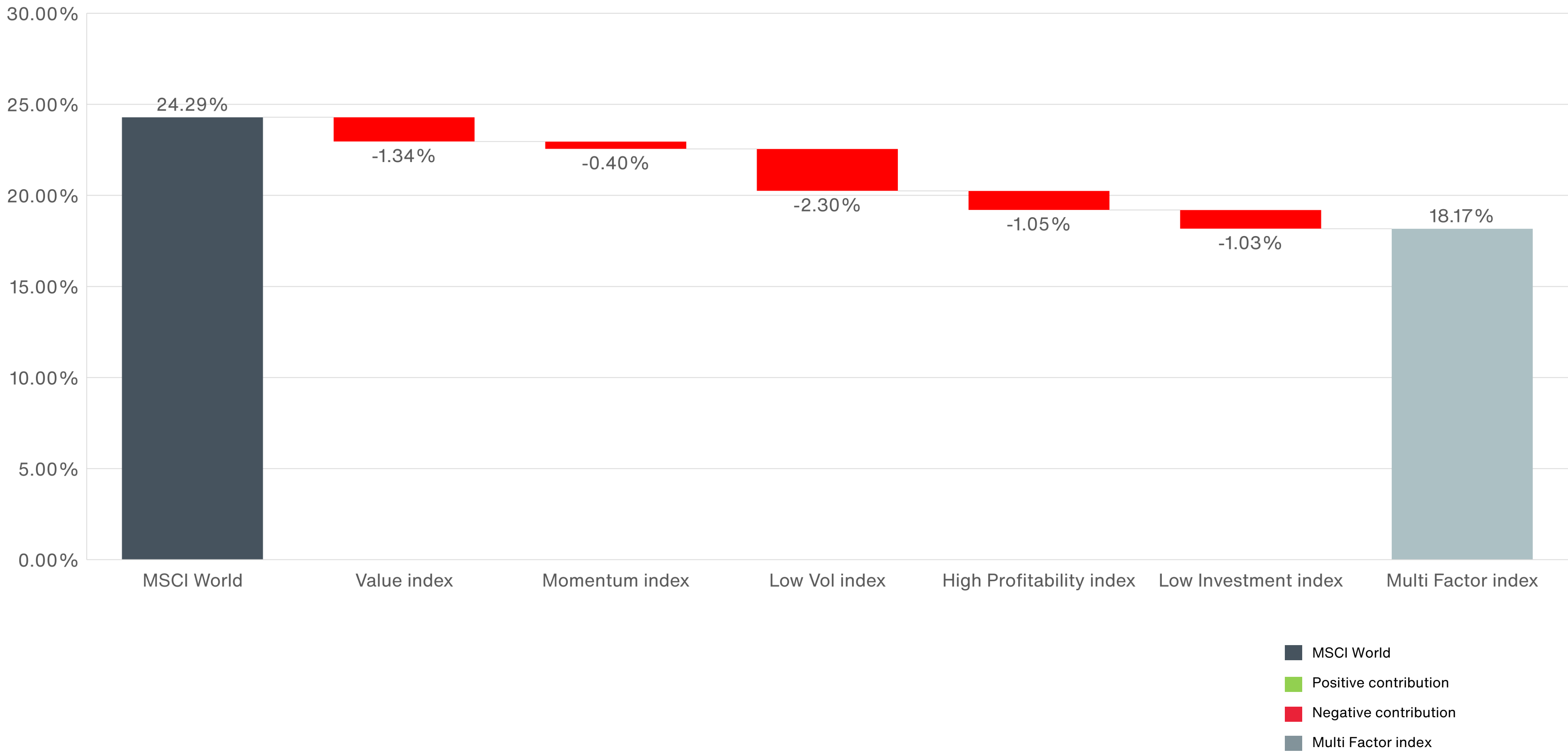
Performance attribution – Scibeta Multi-factor benchmark

YTD – As of June 30, 2024



Performance attribution – Scibeta Multi-factor benchmark

1 Year – As of June 30, 2024



Performance attribution – Scibeta Multi-factor benchmark

2 Year – As of June 30, 2024



Performance attribution – Scibeta Multi-factor benchmark

3 Year – As of June 30, 2024



Performance attribution – Scibeta Multi-factor benchmark

Since Inception* – As of June 30, 2024



The since inception date is Jan.06, 2021

B

Appendix Asset Allocation Views



Key Market Issues

Is U.S. growth rolling over? Will the rest of the world pick up the baton?

U.S. GDP growth was much faster than potential in 2023 but has slowed to trend in H1 2024. Will it stabilize at trend, or could the economy stall? As U.S. growth slows, can Europe and China accelerate?

What happens to global fiscal stimulus in 2025?

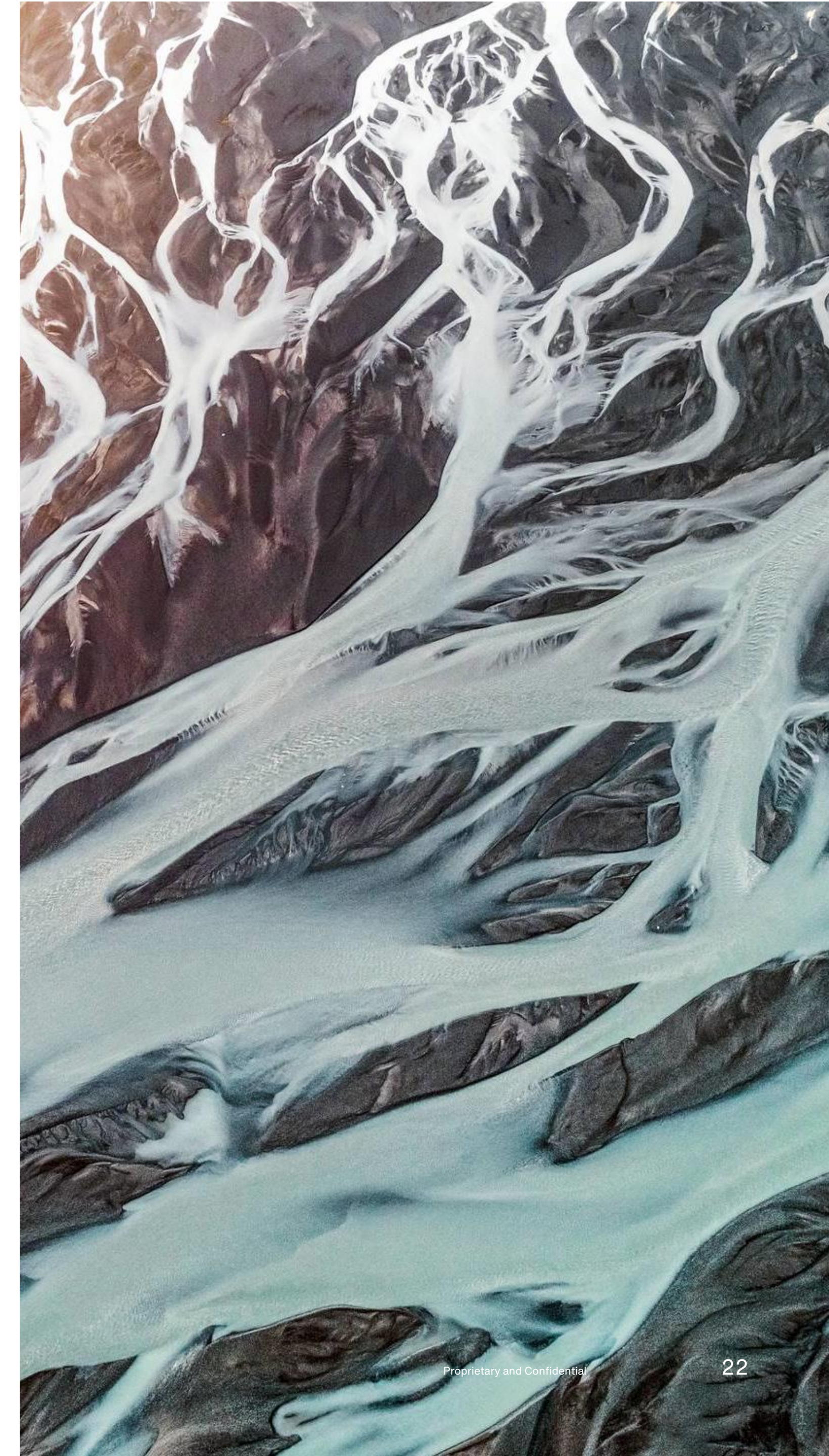
A number of countries have had loose fiscal policies in recent years. What are the implications of the elections of 2024: will fiscal deficits reverse or deepen in 2025?

Is the risk-on rally due for a pause?

Markets seem to be priced for perfection. Credit spreads are still tight (particularly in the U.S.), implied volatility is low, and, whilst it can't be observed directly, the equity risk premium (the difference between expected returns on equities and bonds) is also below historical averages.

For more information on Aon's Views

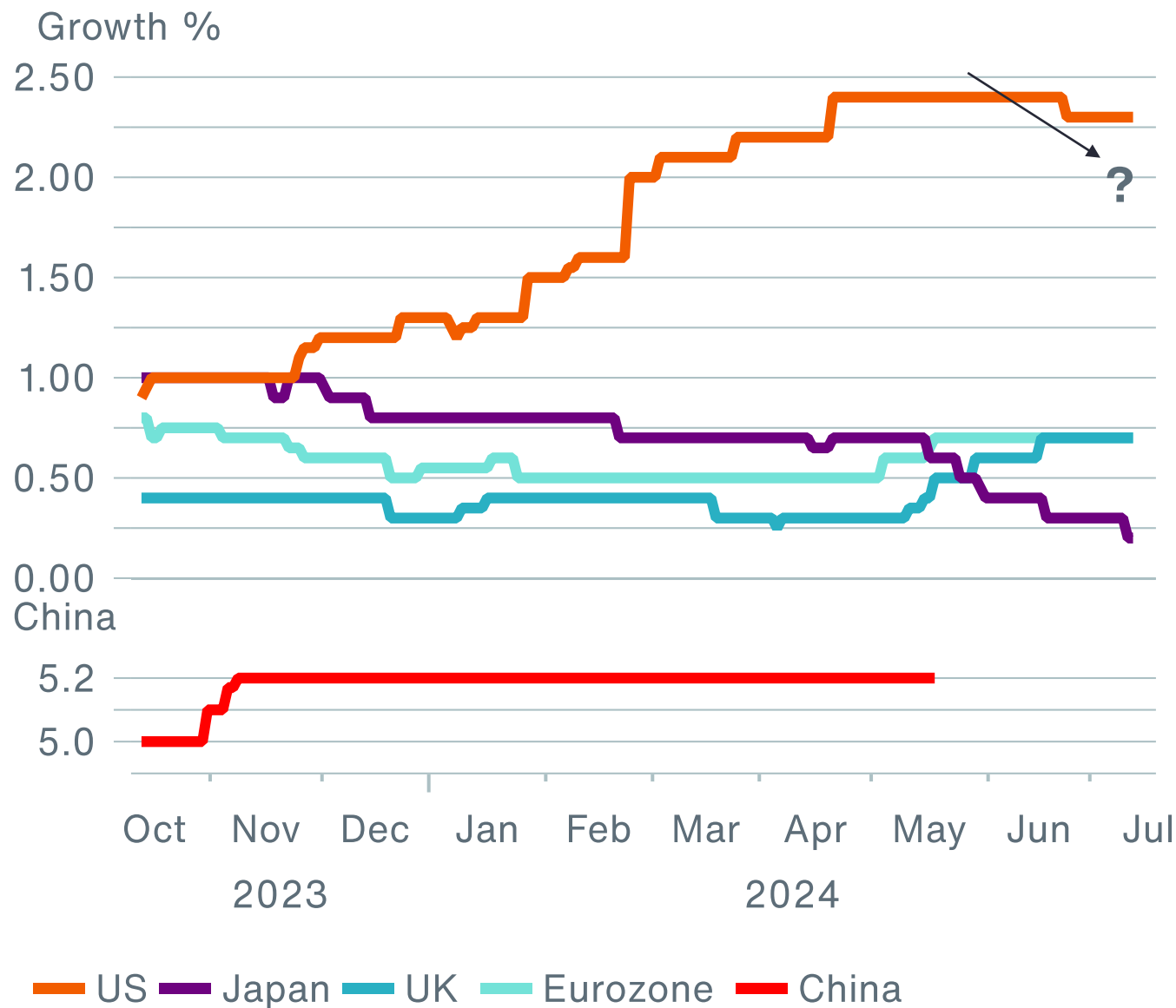
[Market outlook \(aon.com\)](https://aon.com)



Our Thoughts

We don't think a global recession is imminent.

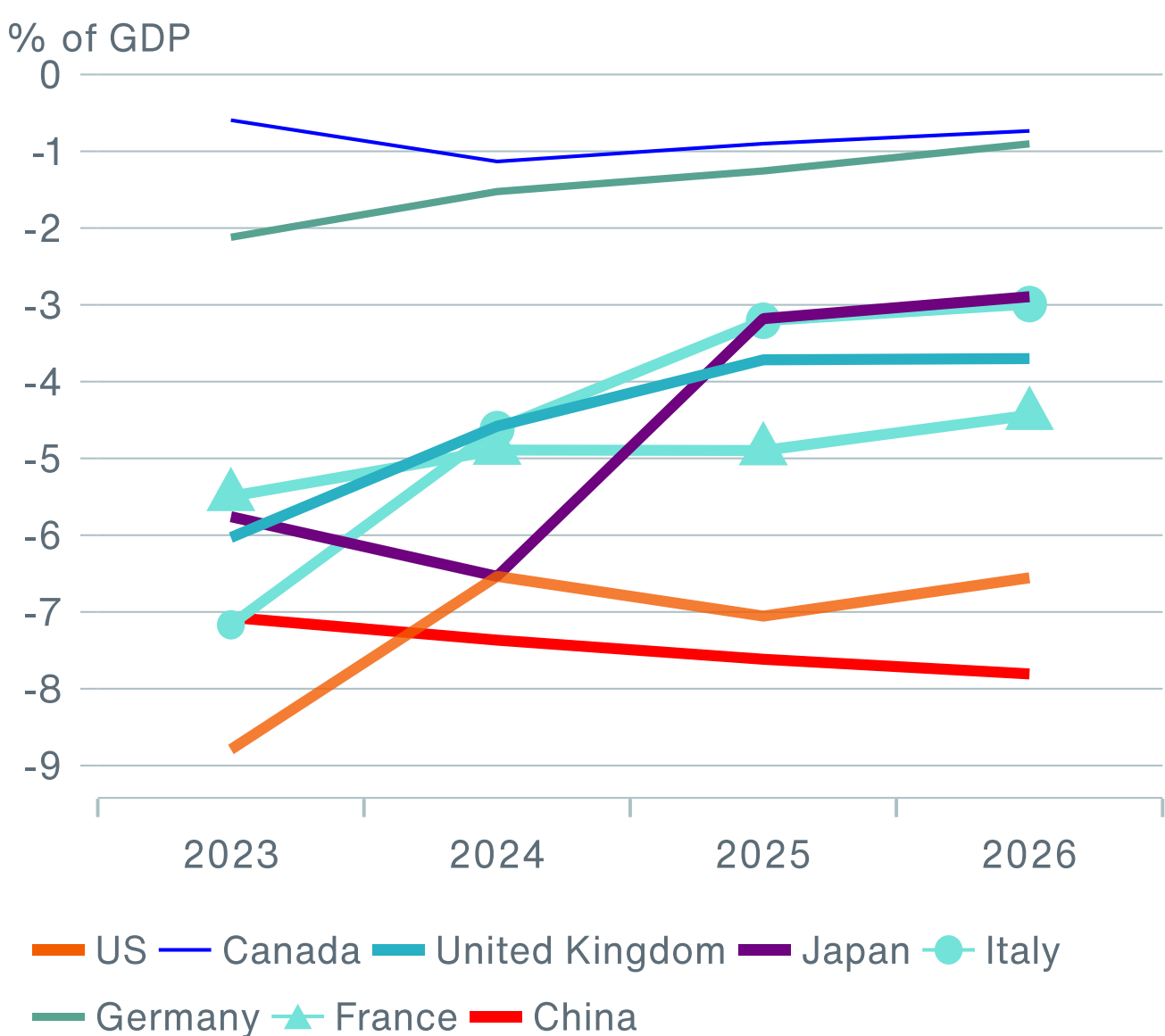
2024 Consensus Growth expectations by region: a small decline in the U.S. but Europe and China are holding up



Source: Bloomberg

Fiscal deficits likely to remain elevated.

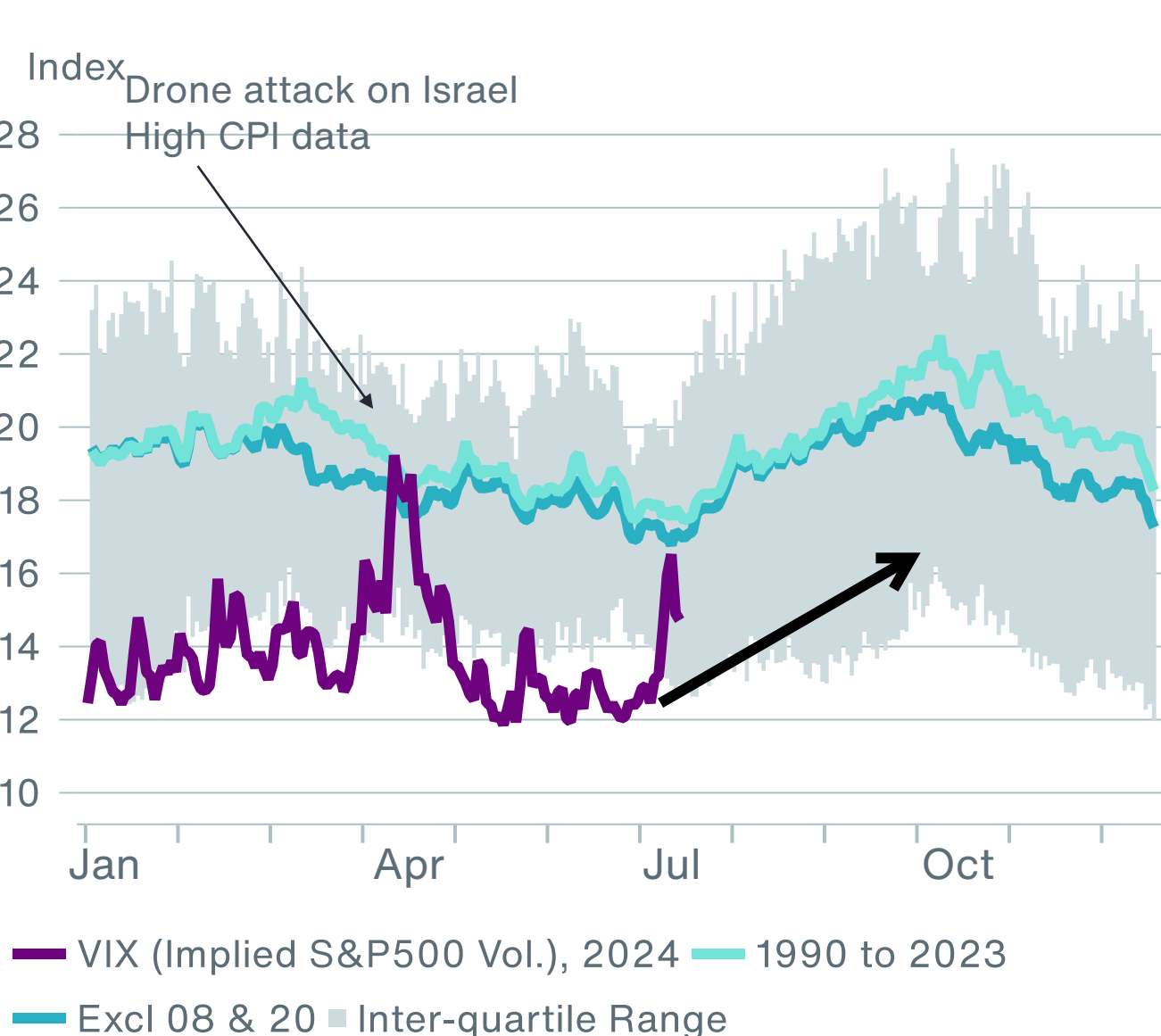
Public sector borrowing is particularly elevated in China and the U.S.



Source: IMF

Markets tend to get more risk averse in Q3.

VIX tends to be higher in the Autumn – a trend which we think be accentuated by U.S. election



Source: CBOE, Macrobond

How Should Portfolios be Positioned Versus Benchmarks?

With minimal dislocations in markets, now is not the time to deviate significantly from benchmarks. However, we think liquid alternatives offer better risk-adjusted returns than traditional equity and credit exposures.

Volatility



We think the excess return available on both equities and traditional credit is poor at the moment and therefore suggest running slightly less risk than target.

Return



We suggest tilting equity exposures into higher-returning alternatives such as Insurance Linked Securities (ILS). Their low correlation to equities helps diversify equity risk, but we expect to give similar returns at a medium-term horizon. Although asset-backed securities (ABS) have outperformed, we think that they remain attractive as they have similar levels of carry but with lower levels of credit spread duration, so they will be less hit if we see spread widening.

Duration



We expect yields to be volatile. We think that there is relative value in parts of the curve but would keep overall duration close to target.

Cross Asset Views

Equities are medium-term unattractive.

The effects of monetary and liquidity tightening, and a falling equity risk premium will challenge equities in the medium term. However, there are no obvious immediate catalysts (other than perhaps seasonality) to suggest markets are rolling over any time soon.

Yields are likely to be choppy but range bound.

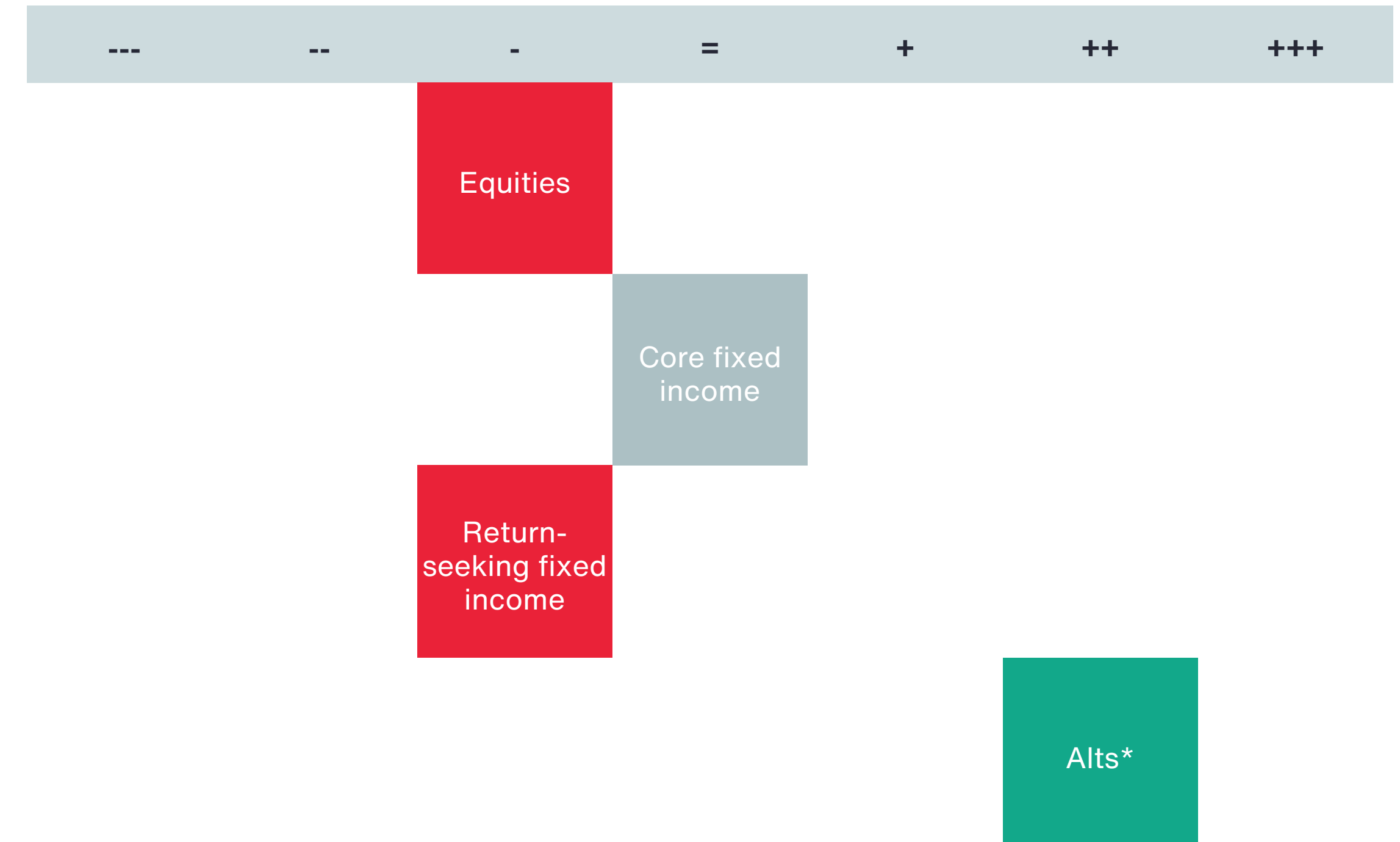
Inflation normalizing and policy rates starting to be cut will help lower yields. However, continued high issuance and partial yield curve inversions will act as a headwind to returns.

Credit spreads are too tight in traditional IG – we prefer more carry and lower spread duration in IG Securitized Credit.

We think risk-adjusted spreads are still better in IG Securitized Credit and also has a lower credit spread duration, so it is less exposed to spread widening.

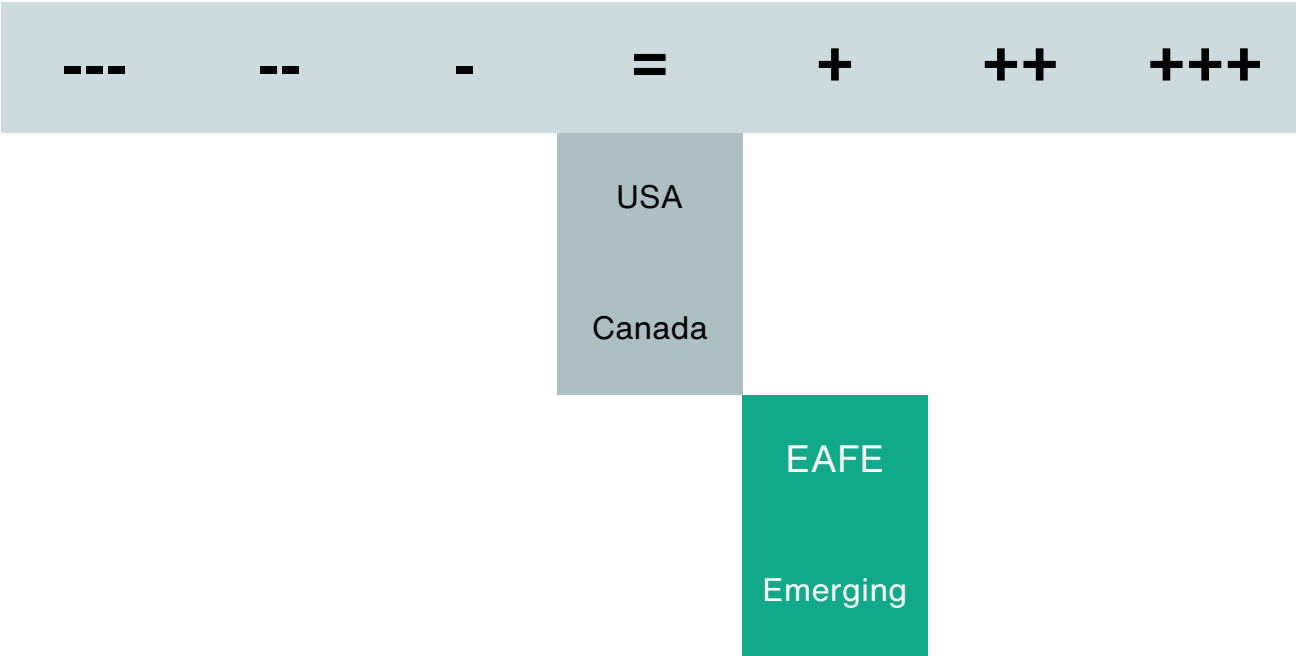
Liquid alternatives offer better prospective returns than return-seeking fixed income.

We like opportunities in diversifying hedge funds and insurance linked securities are again offering attractive total yields.

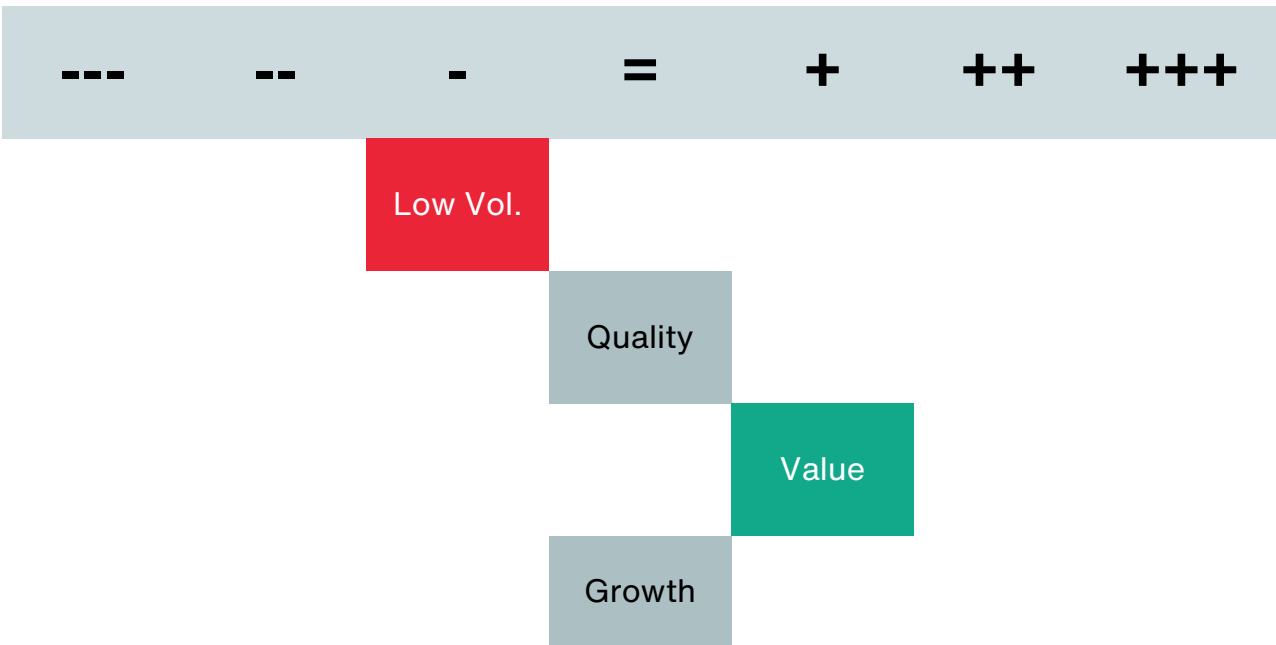


Relative Asset Class Views*

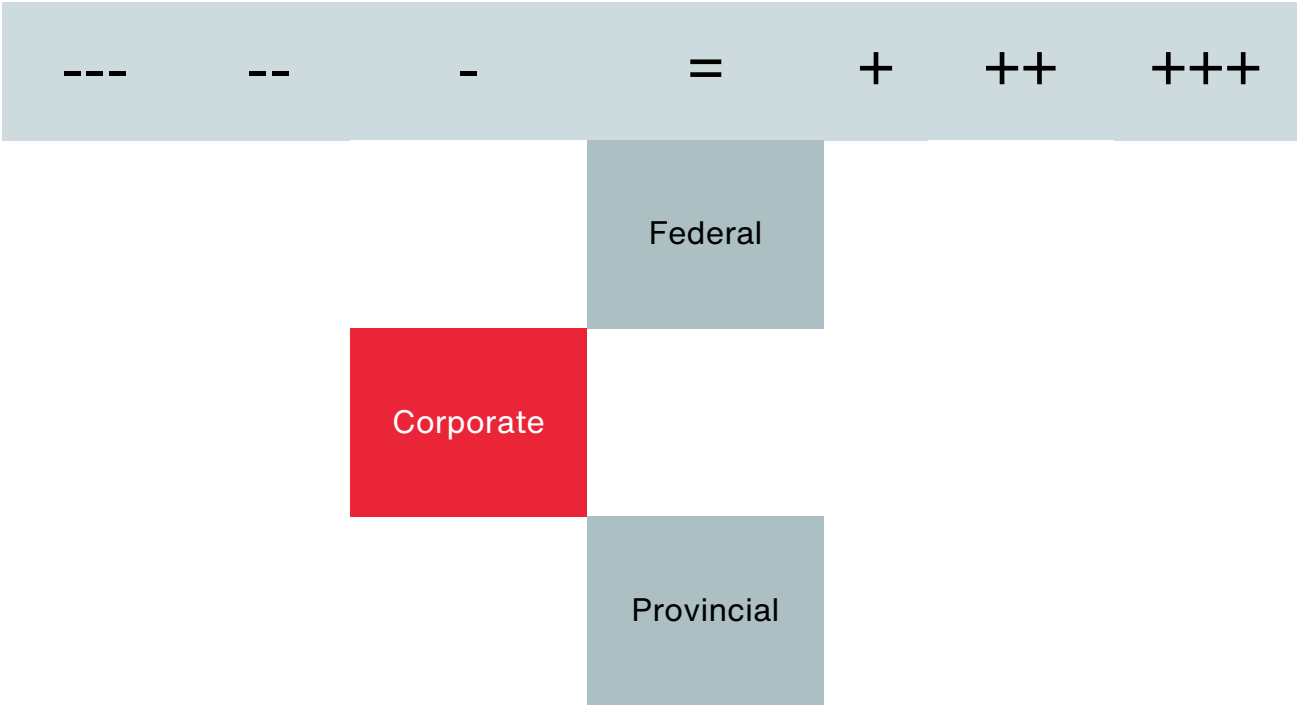
Regional views



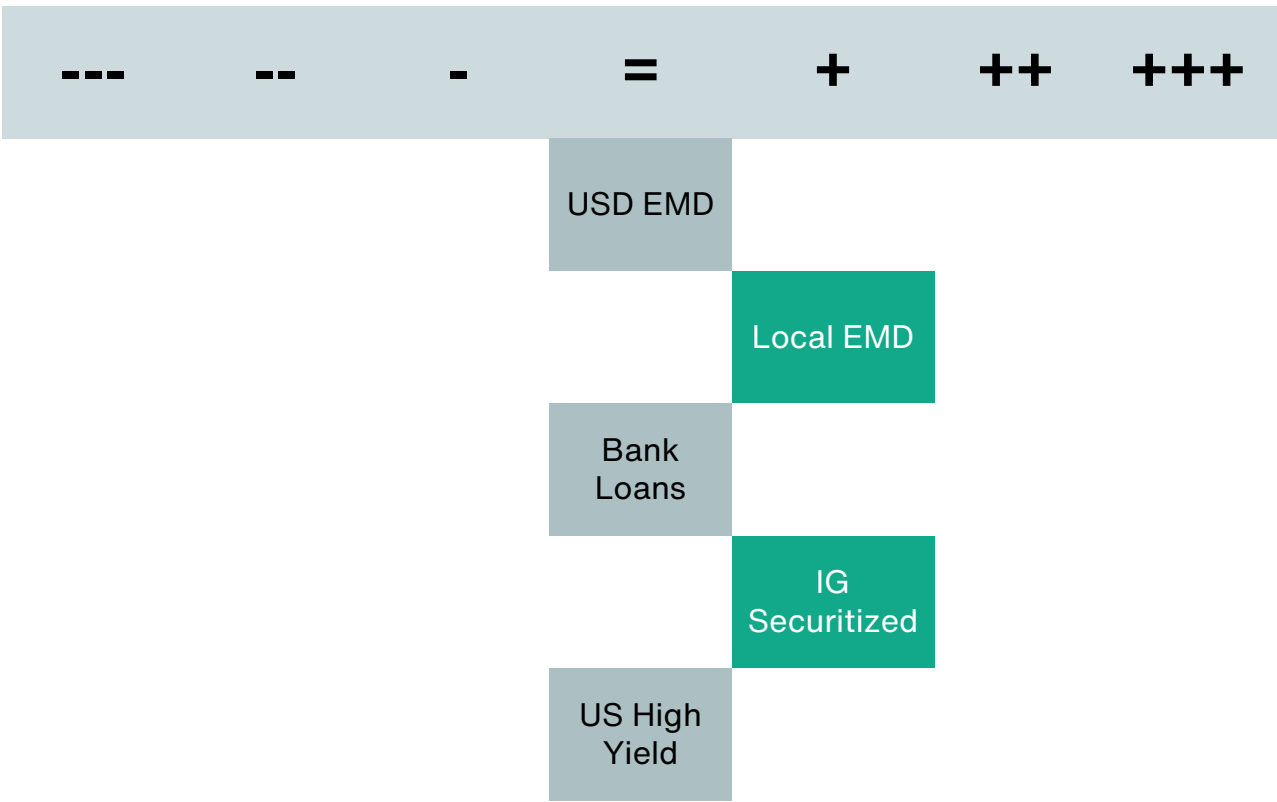
Factor views



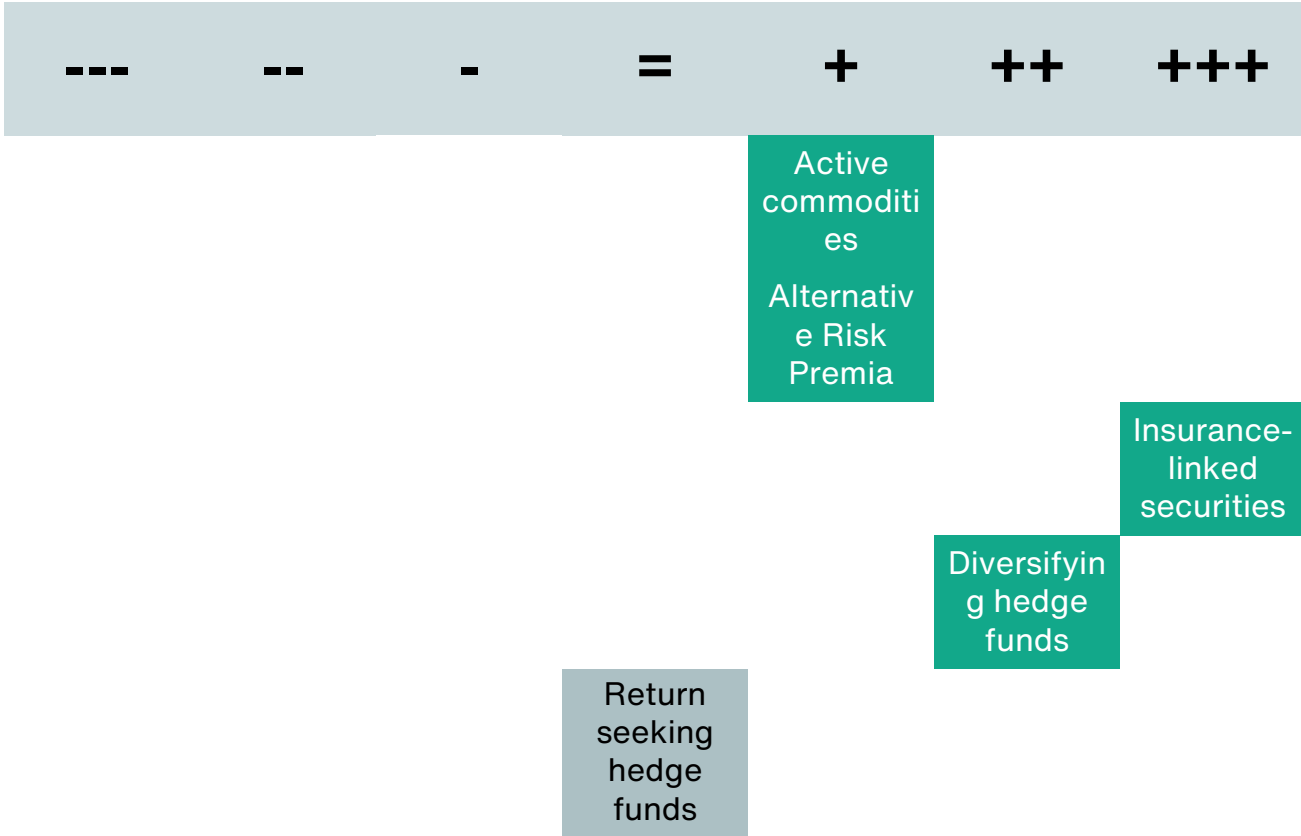
Core Fixed Income



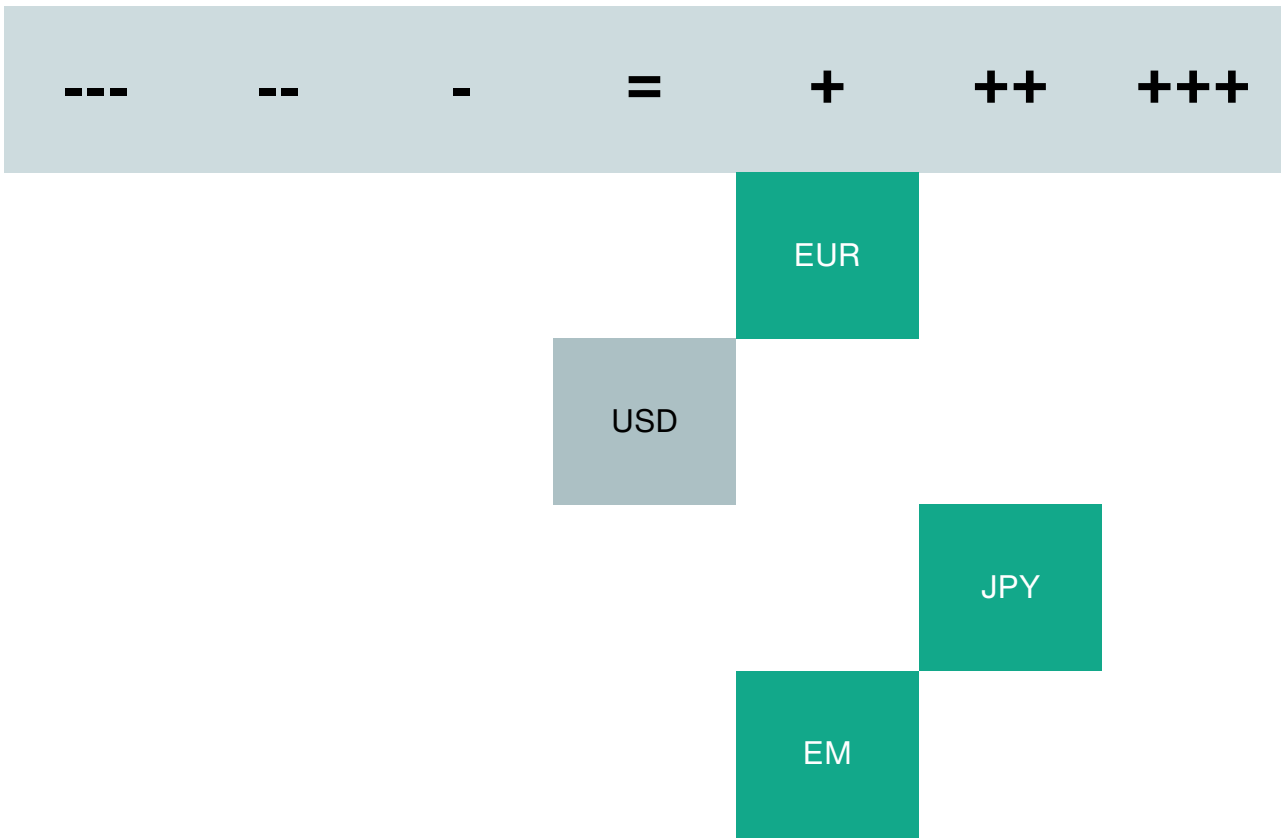
Credit



Alternatives



Currency views vs CAD



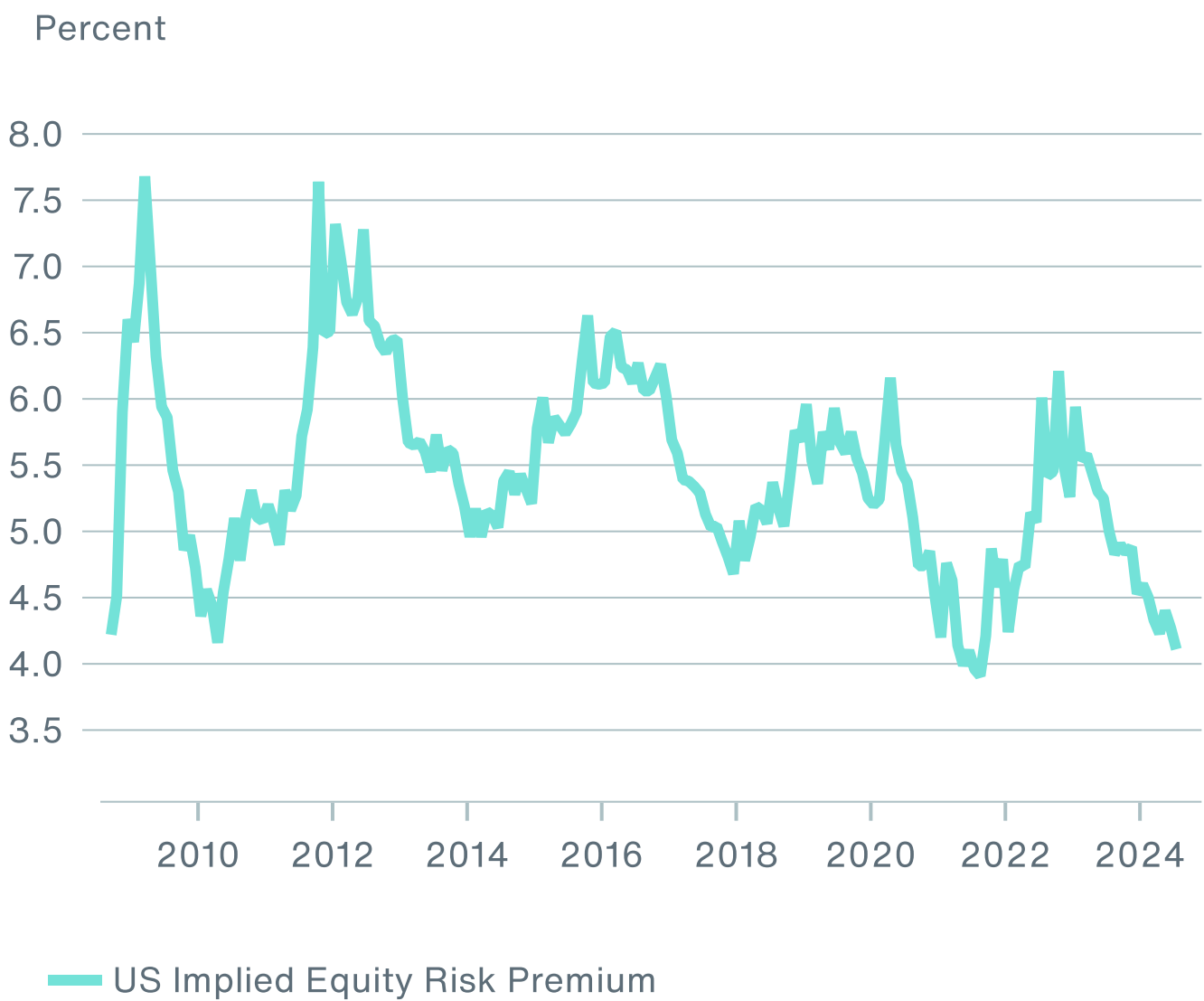
*Asset class views are relative to others within the asset class and not relative to other asset types. There should be no read-across from equities to credit, for example.

Equities: Single Negative

We remain relatively cautious over the medium-term

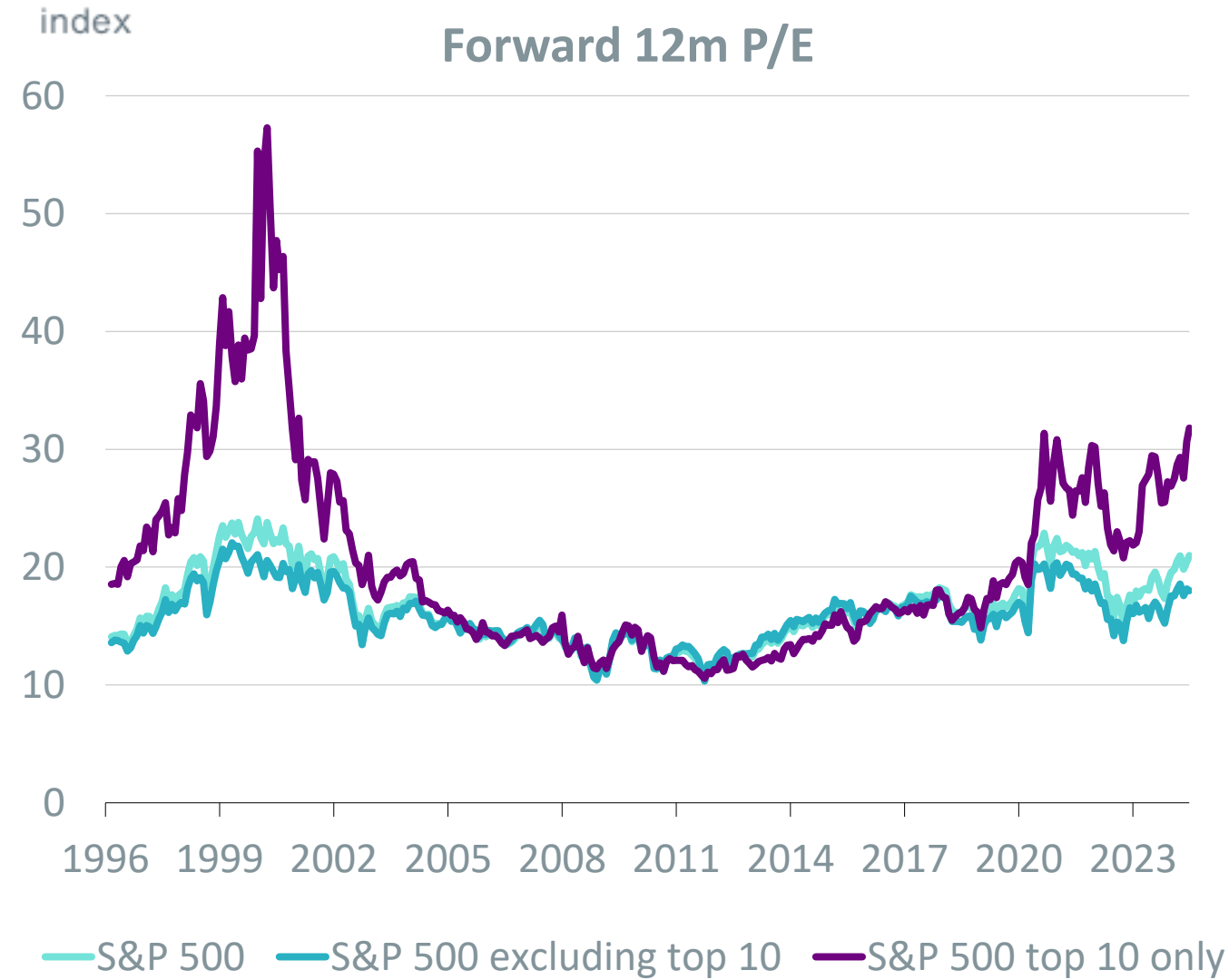
With higher-for-longer interest rates, we think better risk-adjusted returns are available outside of equities. However, we think that equity markets could continue to forge ahead in the near term, especially as the U.S. AI leaders resumed market leadership over Q2, and there are signs of improving performance outside of the U.S. We continue to recommend only small underweights relative to strategic targets.

A low equity risk premium is a challenge



Source: Macrobond as of 07/2024

U.S. big tech still not a bubble?



Source: Factset as of 07/2024

Past Performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect our fees and expenses. Please refer to Appendix for Index Definitions and other General Disclosures.

We think that global equities are likely to continue their rally in the near term as the AI theme continues to drive the returns of the big technology companies in the U.S., and the signs of a pick-up in non-U.S. economic activity provide support. However, we are more concerned over the medium term, as global equity markets may struggle from expensive valuations, the headwind of relatively high interest rates, and the continuation of the moderate U.S. economic slowdown.

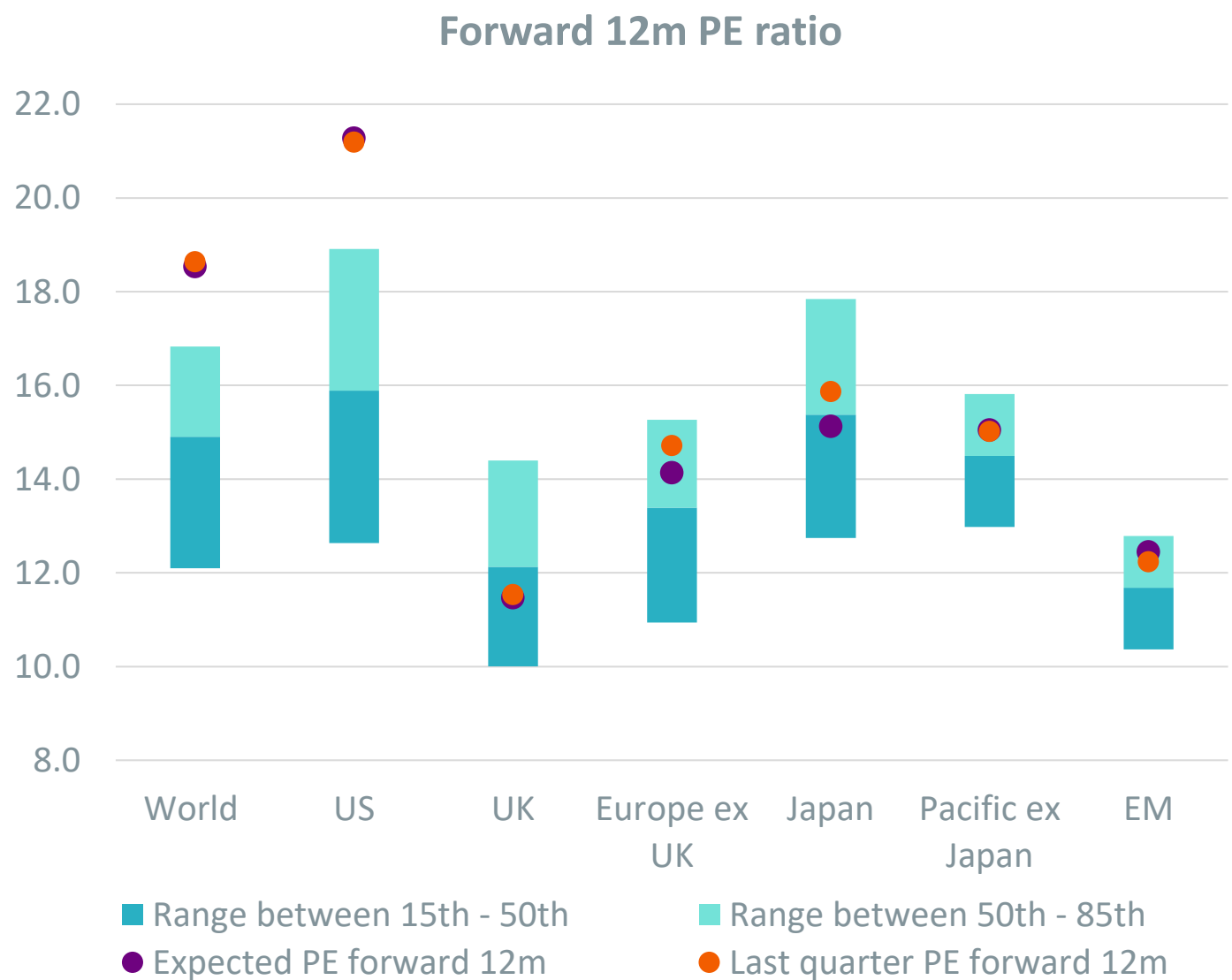
In terms of the AI theme itself, we continue to believe that valuations have not yet reached bubble-like levels. However, we cannot ignore the fact that valuations are still moving higher, and we are closer to the point when a justified reaction to exciting new technology turns into overexuberance. As such, lofty earnings expectations are becoming increasingly vulnerable to disappointment in our view.

Equities: Single Negative

We remain relatively cautious over the medium-term

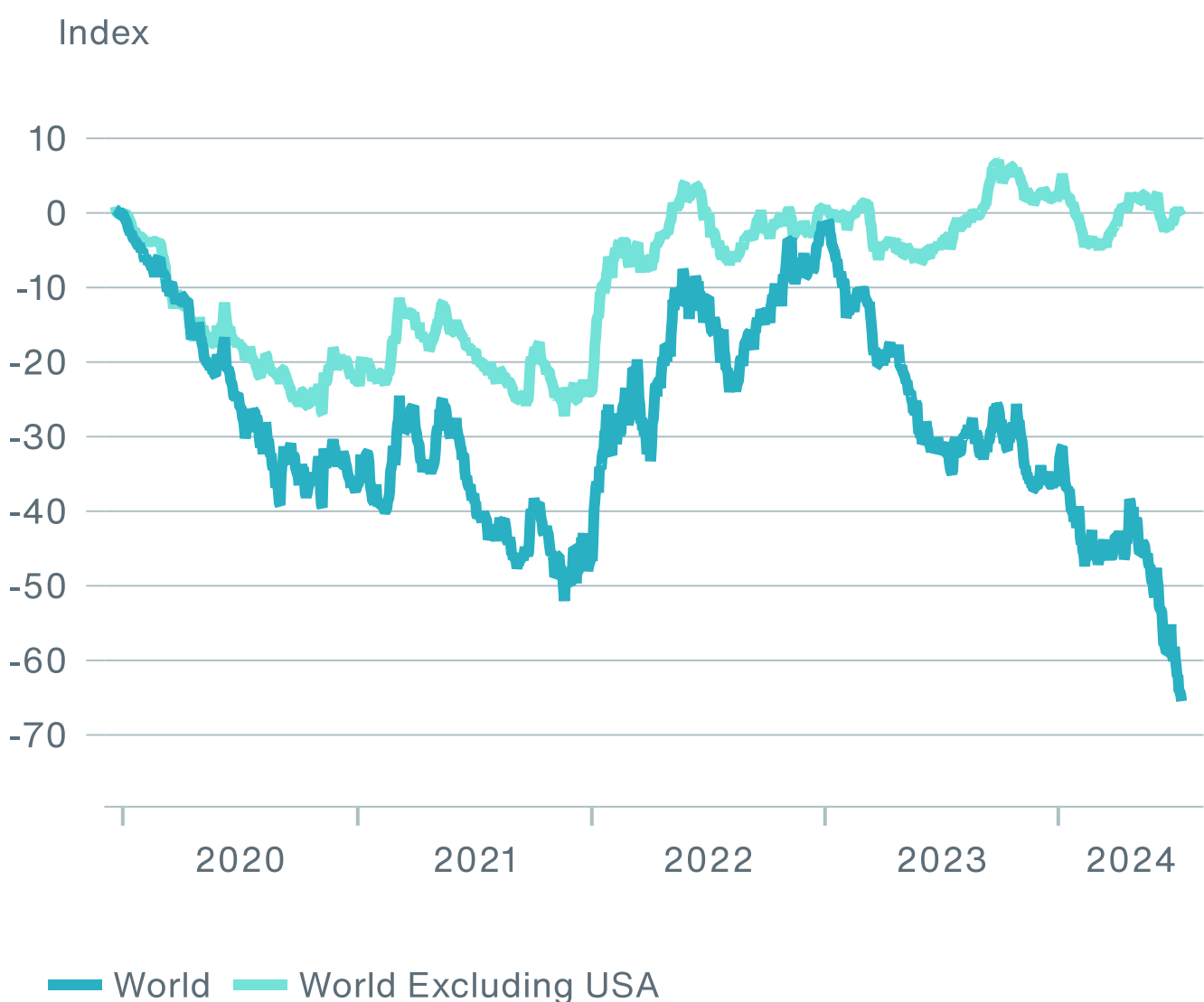
We continue to prefer non-U.S. developed and Emerging Market regions in light of strong U.S. returns and the highly concentrated nature of that outperformance. Additionally, economic activity is starting to pick up in Europe and Emerging Markets, which should also be beneficial. In terms of factors, we have a small preference for value versus growth, although it is likely that any outperformance will be patchy.

The U.S. remains very expensive, but Europe and Japan get a bit cheaper



Source: Factset

Value has kept pace with growth if we exclude the U.S.



Source: Macrobond
Note: MSCI World Value total return less Growth index equivalent, versus the same calculation for MSCI World excluding USA. Re-indexed to 2020

Despite a renewed surge in the U.S. big technology stocks, there have been continued underlying signs that a pro-cyclical rally has begun. This has been more evident in the recent performance of emerging market equities than in Europe, but the latter is likely to benefit from moderately improving economic activity and the recent rate cut from the European Central Bank.

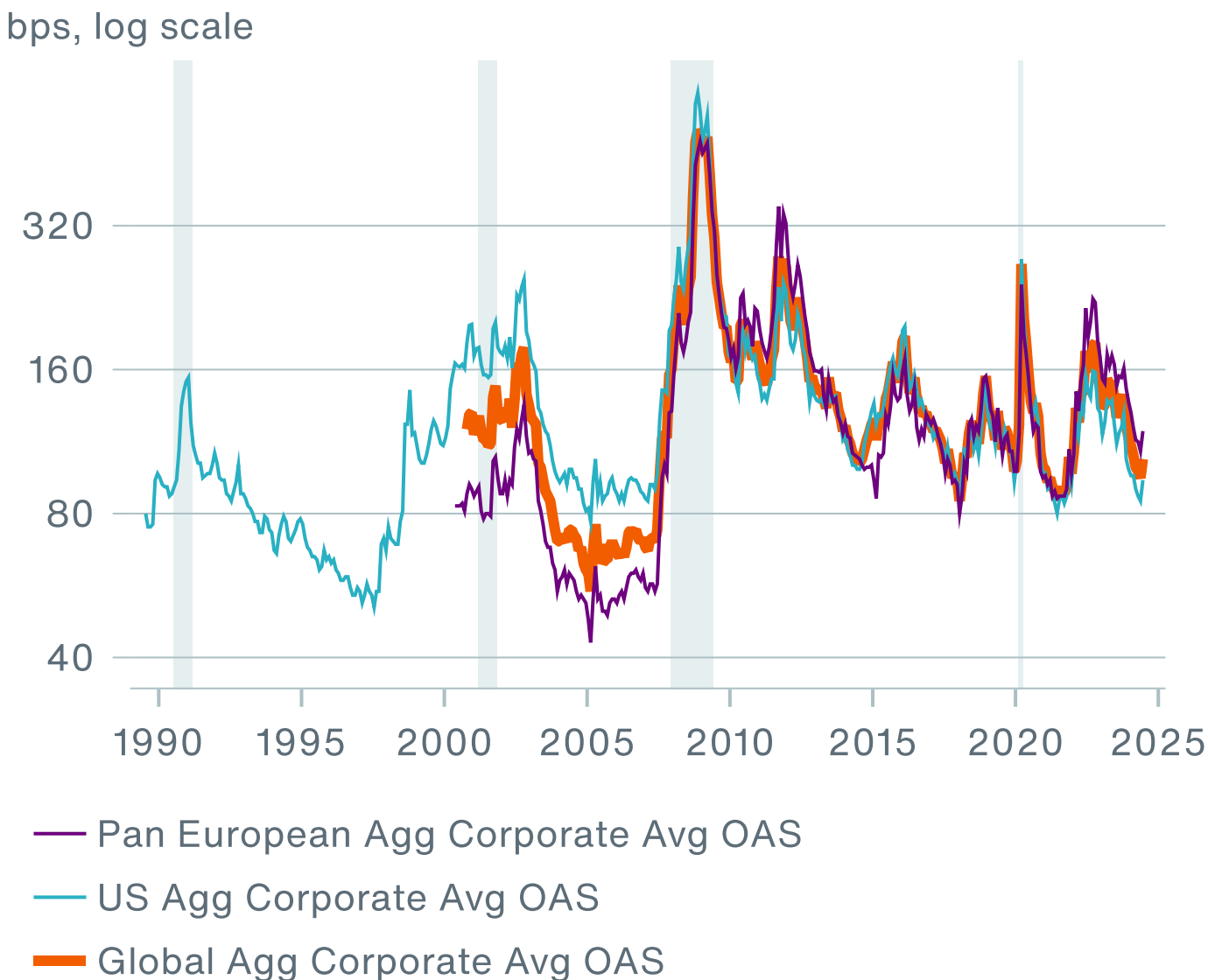
Meanwhile, we maintain a small preference for value equities relative to growth while maintaining low volatility as our least preferred factor. The growth factor is dominated by the small number of big U.S. technology stocks, whose lofty earnings expectations could be disappointing. Also, as Nvidia's recent stock price pullback demonstrates, it would not take very much for the AI theme to end suddenly as a support to markets. However, the longevity of the AI theme is unpredictable, so we are not expecting consistent value outperformance.

Global Investment Grade Credit: Single Negative

Spreads remain tight

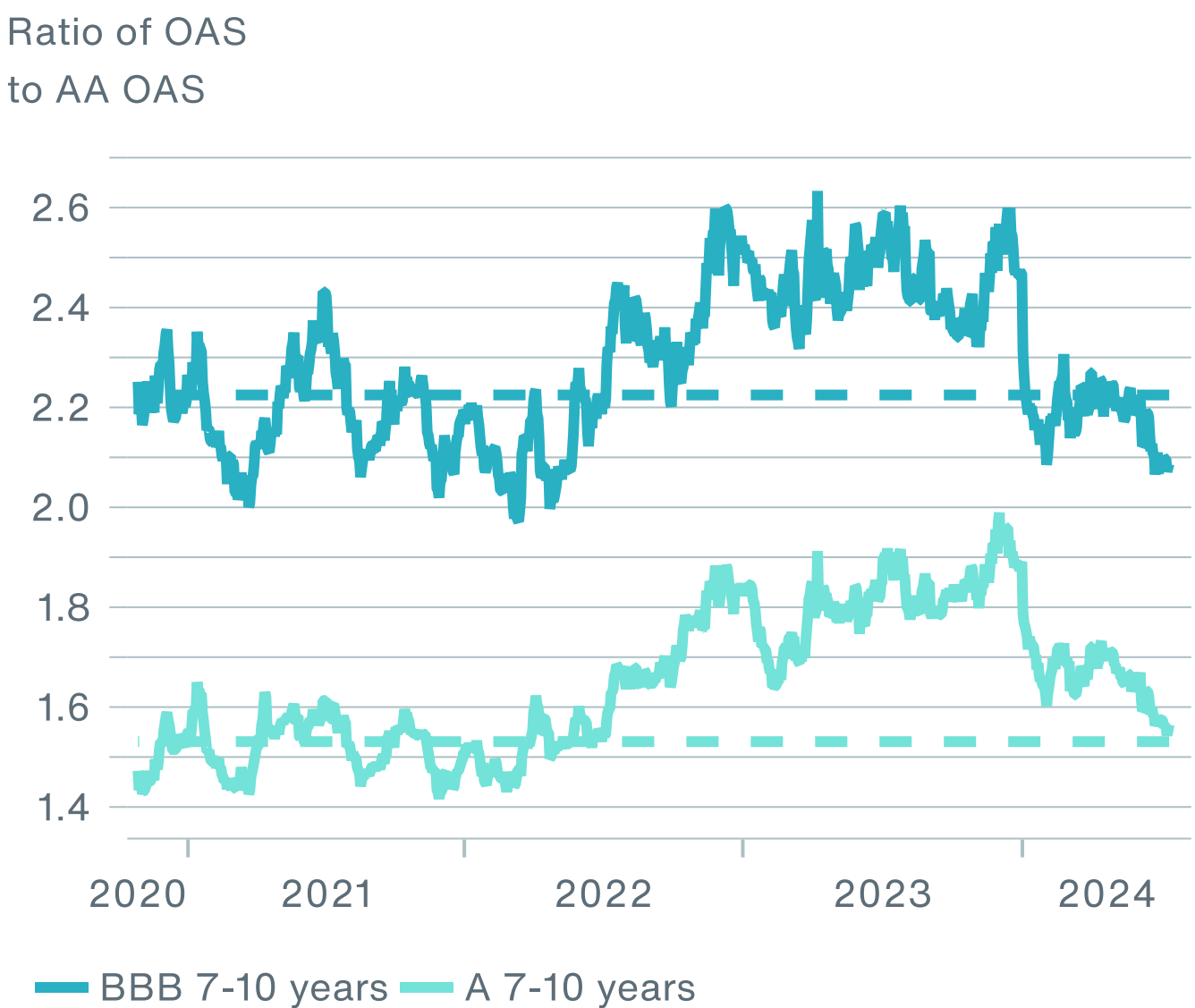
Although we don't see an elevated risk of an immediate recession, we think spreads are not sufficiently attractive to compensate for unexpected shocks and potentially weaker economic conditions at longer horizons. We would want to see spreads at around 120 bps to go neutral and 140 bps on the global aggregate (last October's levels) before we think they have become attractive enough to overweight. In terms of relative positioning, the rewards for moving down the risk curve within IG seem poor. BBB in European corporates seems to be particularly poorly rewarded.

Overall Option-adjusted spreads (OAS) are tight – particularly in the US



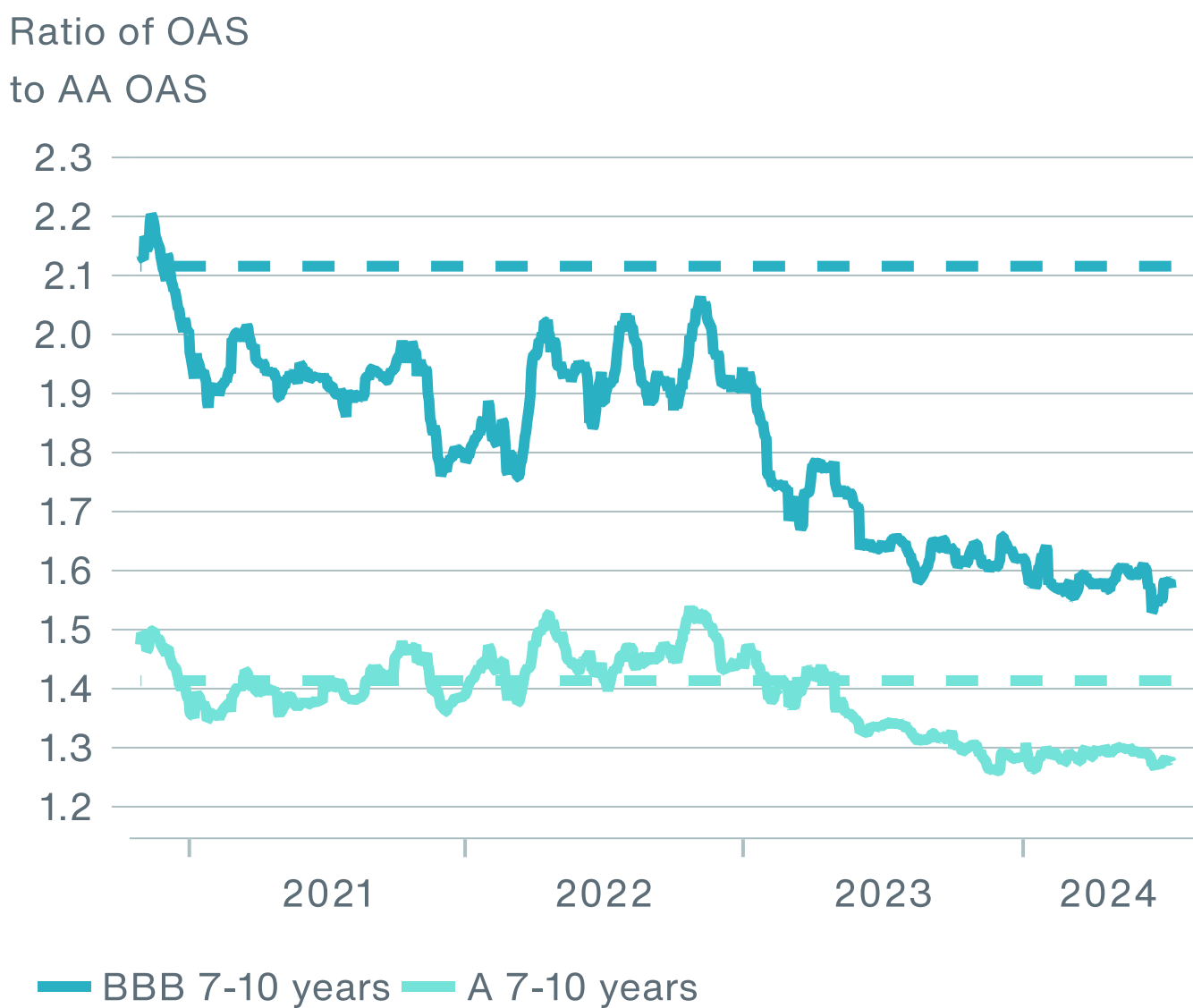
Source: Bloomberg. Shaded regions represent US NBER defined recessions.

USD BBB spreads are also tight versus AA. A rated are close to post 2009 average



Source: Markit iBoxx, Macrobond. Dotted lines represent post 2009 average

European BBB spreads are particularly tight



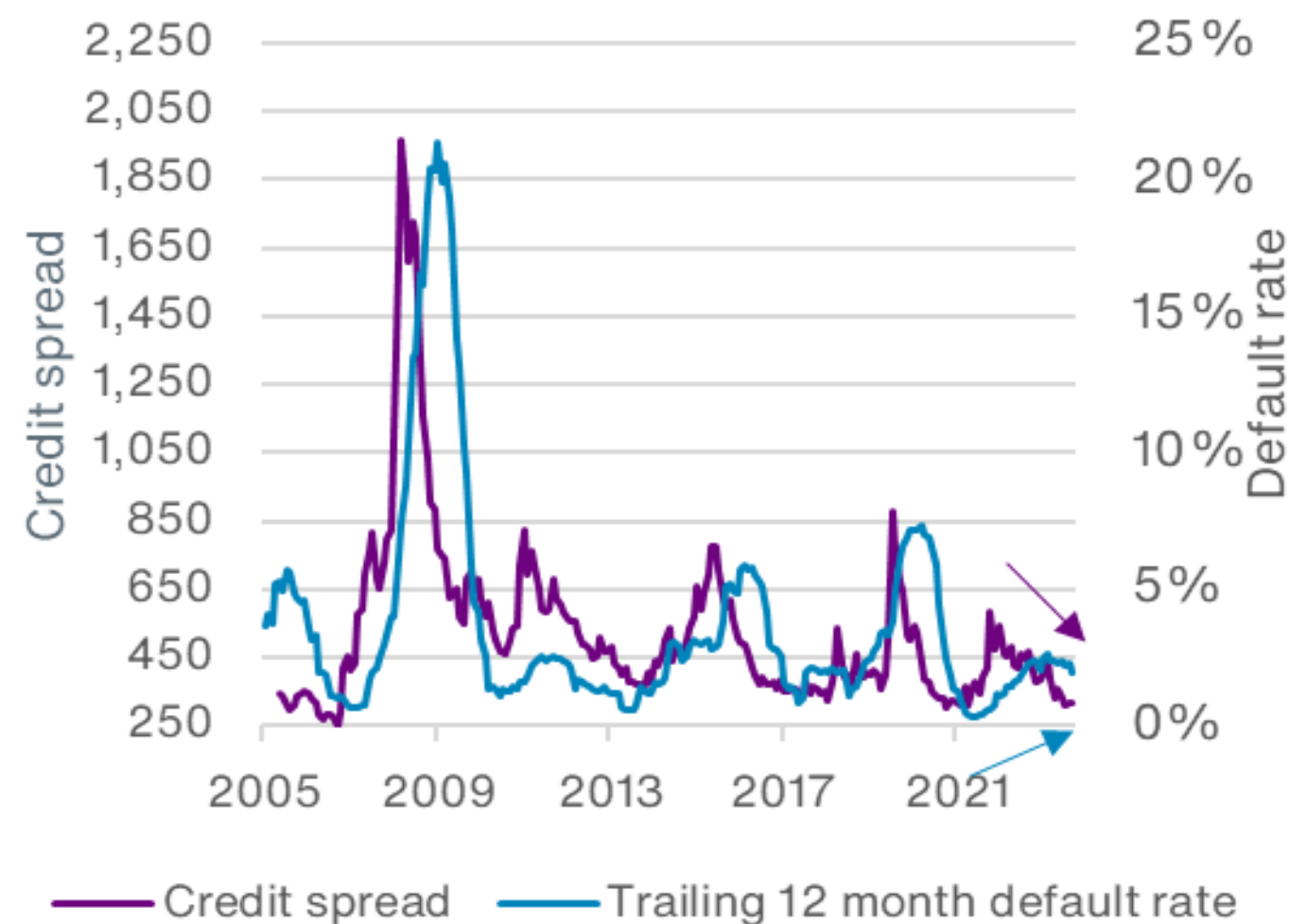
Source: Markit iBoxx, Macrobond. Dotted lines represent post 2009 average

Return-Seeking Credit: Single Negative

Credit spreads now edging up but high yield levels provide attractions

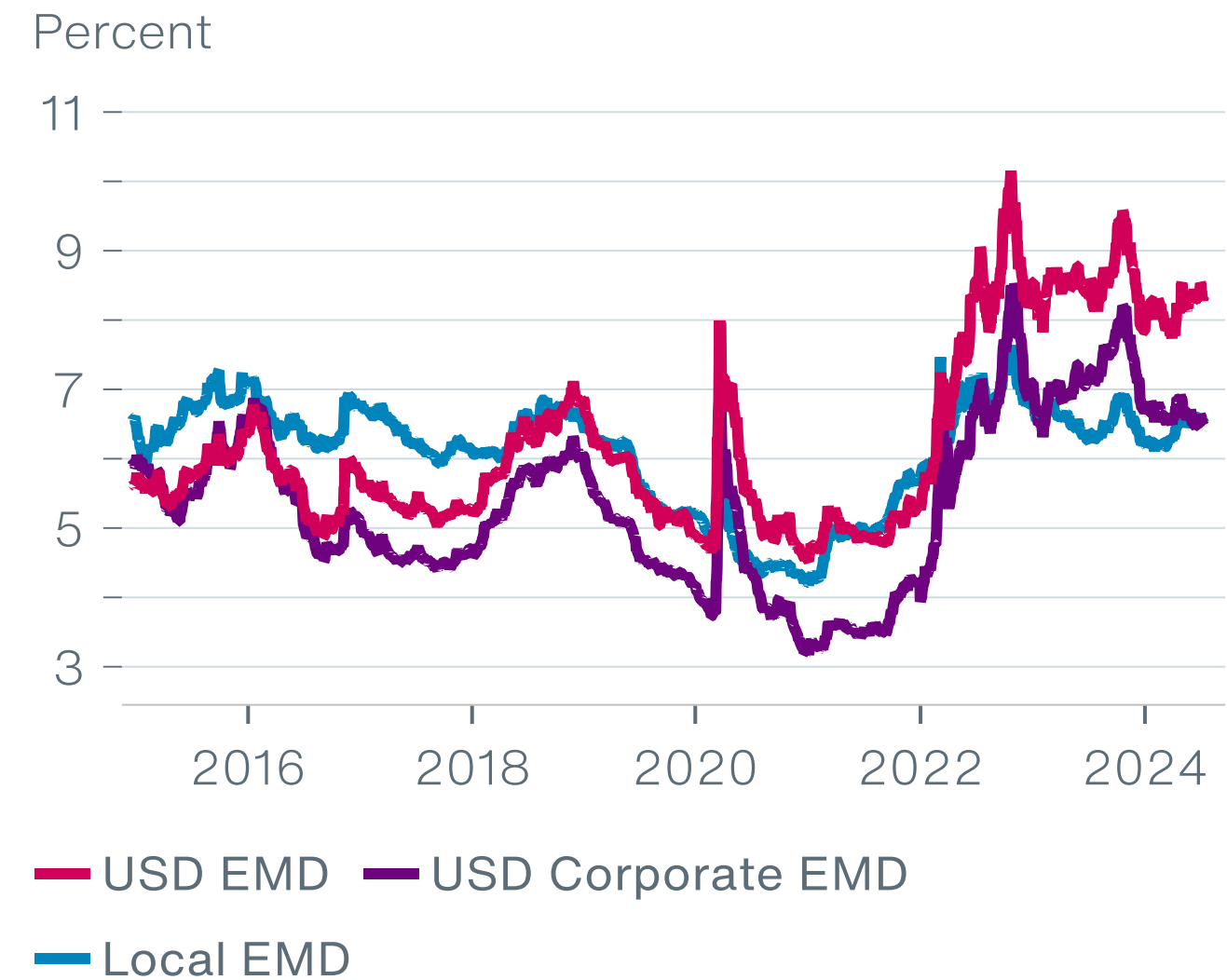
We think credit spreads may have reached a cyclical low in May when the ICE BofA US HY Index credit spreads fell to 324 bps. Spreads have picked up a little over the last couple of months, but they remain tight, thanks to resilient corporate earnings and a supportive technical backdrop. As defaults increase on slower U.S. growth, we expect HY bond spreads to rise to around 400 bps, halfway back to their 15-year average. This still means positive expected returns over the medium term.

Rising U.S. HY bond default rates indicate wider spreads



Source: BoA Global Research

EM debt yields are historically high



Source: JP Morgan, Macrobond

U.S. and EU HY bonds' 12-month trailing default rates have increased but remain low at 2%. U.S. loan defaults are higher at 3.3%, and private equity borrowers who suffer from high interest rates can spark further defaults. Offsetting the negative impact of the lower quality of loans vs. HY bonds is a higher carry and strong CLO issuance.

USD EM debt yields have moved up over the last quarter as U.S. government yields and credit spreads have both risen. Local EM debt yields have risen less. However, local returns have suffered from FX losses against a strong dollar. The U.S. higher-for-longer rate environment and the upcoming U.S. election are headwinds to EM assets, but USD EMD nominal yields and local EMD real yields are attractive.

Illiquid Alternatives

Medium-Term Opportunities

Private assets do not lend themselves to medium-term tilts as typically allocations will be locked in for many years, and exit points are not discretionary. Private asset programs are best determined by your consultant, using Aon capital market assumptions, together with stochastic and deterministic risk analysis, to create a portfolio that we anticipate should achieve investment objectives. That said, market conditions do vary, and investors may want to prioritize areas where we think opportunities may not be as long-lived and postpone deployment to asset classes where better entry points may be available in later years. The list below includes asset classes where we think vintages could be particularly attractive over the next couple of years (in alphabetical order).

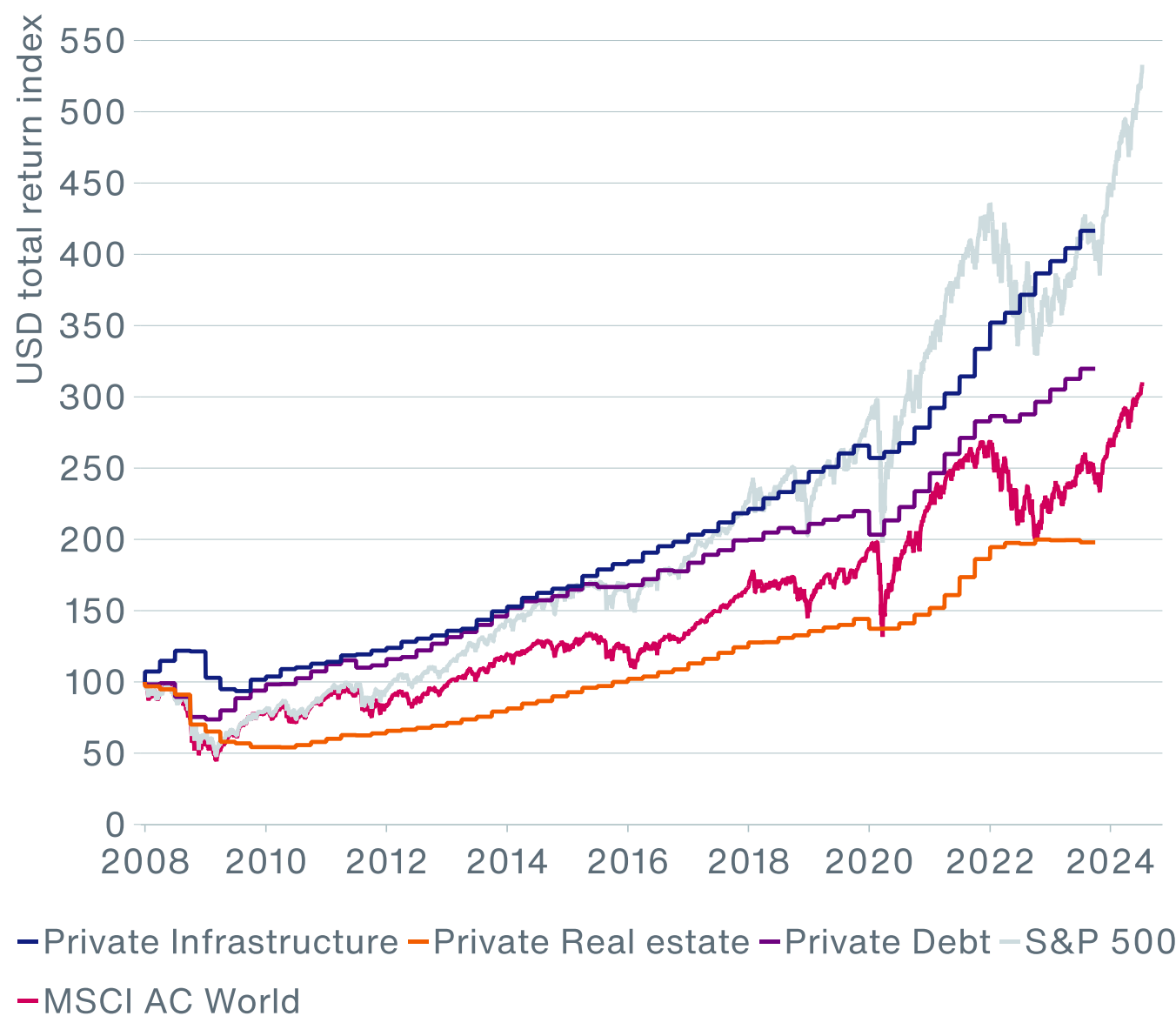
Strategy	Market Tailwinds
Asset-Based Finance	Banks exiting the space and a difficult environment to execute public securitizations
Bank Capital Relief	Increasing regulation is driving banks to pay up for capital efficiency solutions
Direct Lending	Returns have increased in line with higher rates as well as increased spreads and now offers equity-like returns with fixed income volatility
Infrastructure Equity	Contracted revenue and escalation clauses continue to support valuations and solid performance during times of economic volatility
Litigation Finance	Fundamentally uncorrelated return drivers and very few other sources of capital for law firms
Mortgage Servicing Rights	Significant selling from cash poor originators and natural holders exiting the space combined with a buyer pool that is highly constrained by regulatory requirements
Real Estate	Valuations bottoming out. Further, select sectors like housing, data centers, and logistics have limited supply, and the demand is rising
Real Estate Debt	Select opportunities higher in the capital structure in senior commercial and single asset single borrower as well as multifamily residential loans
Secondaries (Venture Capital and Private Equity)	Continued investor portfolio repositioning keeping discounts higher

Private Infrastructure

Resilient asset class benefiting from exposure to structural tailwinds

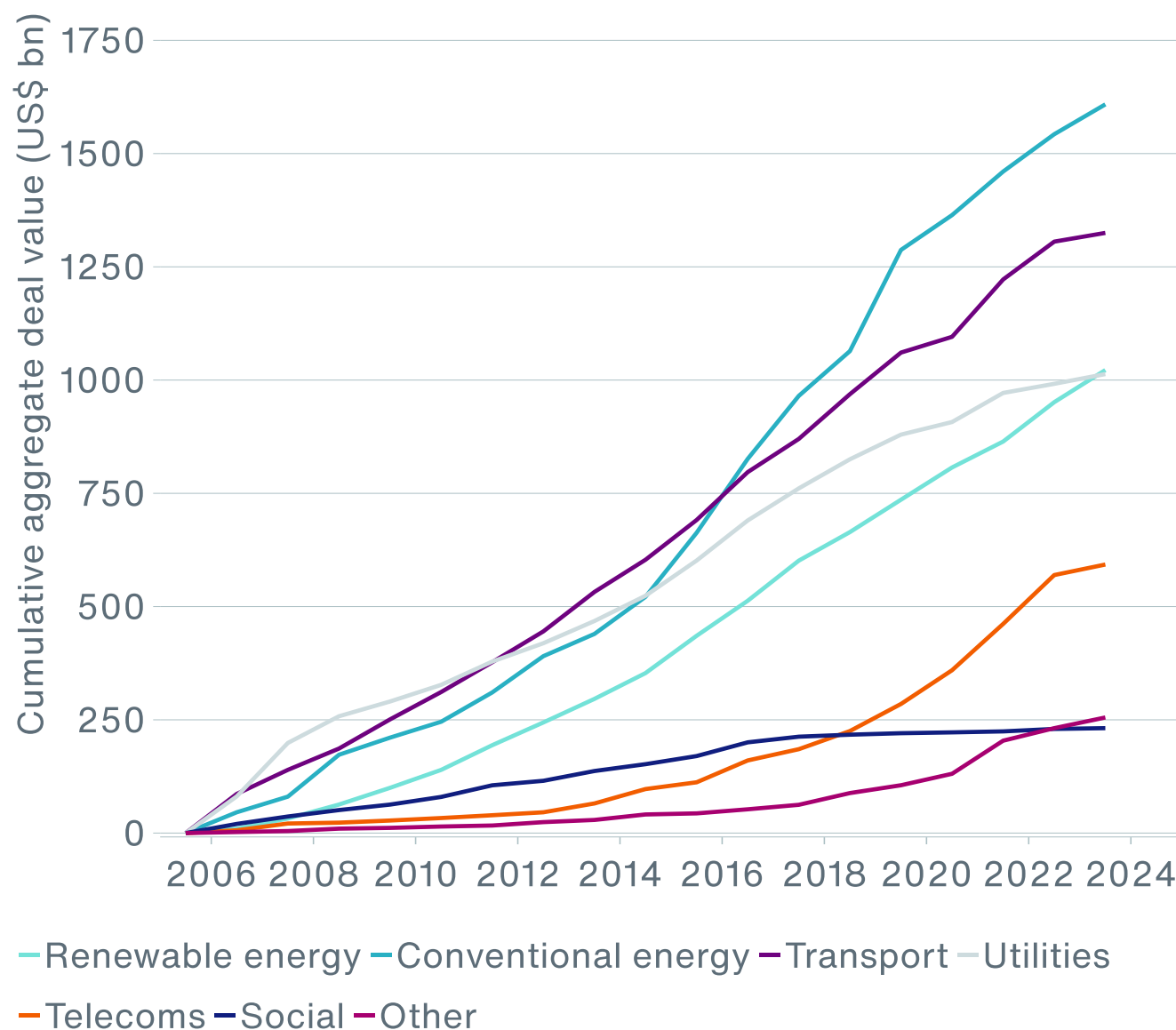
Private infrastructure has continued to perform well despite a backdrop of higher rates, which increased borrowing costs and put pressure on valuations. As with many private asset classes, infrastructure fundraising slowed in 2023 as investors await more clarity over the path of interest rates. As a cyclical inflation and GDP growth uncertainty plays out, we think infrastructure's resilient return profile and exposure to secular growth trends would be particularly attractive.

Private infrastructure has been one of the strongest performing asset classes



Source: Preqin, MSCI, S&P.

Significant investment opportunities to address digitalization and decarbonization



Source: Preqin. Cumulative deal values for private infrastructure managers since 2006 shown

We prefer a diversified infrastructure portfolio of core/core+ strategies and value-added strategies. Core managers targeting stabilized cashflow generating assets can add diversification and resilience to portfolios. The contractual revenue profile of infrastructure assets, often with escalation clauses to keep pace with inflation, provides a stable income stream. Value-added managers looking to enhance or develop assets can then provide further exposure to structural growth tailwinds.

As we look ahead, the fiscal constraints facing global governments may generate new opportunities as governments look for alternative ways to fulfil societal needs around traditional infrastructure. Meanwhile, achieving the net zero emissions goals set by global governments will require massive investments into renewable energy and a transformation of existing utilities and transport infrastructure. The computational power required for sustaining the rise of artificial intelligence is also increasing exponentially, and telecom assets such as data centres and fibre networks are an increasing focus for infrastructure managers looking to participate in the AI theme.



Appendix
Thought Leadership



Thought Leadership Papers

Click the icon to read the associated paper



How Public Pension Should Assess Liquidity

Many public pension funds find value in illiquid assets such as private equity, private credit, and real assets. Read on for research-backed guidance on how different plan characteristics can impact public pension funds' ability to invest in illiquid assets.

Energy Transition in Infrastructure Investing

The current energy transition is meant to be achieved quickly, in little more than a quarter century, and the scale of the total investment needed for this transition is massive and the opportunity set is wide.

This paper covers three questions regarding the role, opportunities and risks and exposure of Energy transition in infrastructure.

Subscribe to the Aon Retirement & Investment Solutions Website

Everything Everywhere All at Once: 5 Insights on Climate Change within Investments

There are many vocal market participants taking strong and unwavering stances on how investors should approach climate change risks and opportunities, yet they express widely differing views. This paper aims to cut through the noise and get to the heart of five key insights investors should understand.

Geopolitics and Portfolio Resilience

Market volatility has picked up a little over the last couple of weeks. Some, but not all of this, is attributable to geopolitical events. Market hopes for a major Fed rate cutting cycle this year have been dashed and that is a likely factor too.

This article provides insight on potential impact on portfolios to geopolitics and how its risk could be mitigated.

Turning Responsible Insights into Action

October 7, 2024
1:00 pm – 5:00 pm

Aon Toronto Office
20 Bay St, Suite 2300

Navigating and understanding the broader landscape of investment risks and opportunities has never been more important.

Join us in Toronto for a complimentary half-day forum with a mix of asset owners and asset managers to learn more about Responsible Investment (RI) best practices, data, tools, and solutions through engaging panel discussions and dedicated networking opportunities.

Topics covered will include:

- Market trends
- Themes including energy transition and impact investing
- Asset class approaches
- Data and reporting

AON



RSVP

About Aon

[Aon](#) exists to shape decisions for the better — to protect and enrich the lives of people around the world. Through actionable analytic insight, globally integrated Risk Capital and Human Capital expertise, and locally relevant solutions, our colleagues provide clients in over 120 countries and sovereignties with the clarity and confidence to make better risk and people decisions that help protect and grow their businesses.

Follow Aon on [LinkedIn](#), [X](#), [Facebook](#) and [Instagram](#). Stay up-to-date by visiting Aon's [newsroom](#) and sign up for news alerts [here](#).

© Aon plc 2024. All rights reserved.

Disclaimer

This document contains confidential information and trade secrets protected by copyrights owned by Aon Solutions Canada, Inc. The document is intended to remain strictly confidential and to be used only for your internal needs and only for the purpose for which it was initially created by Aon Solutions Canada, Inc. No part of this document may be disclosed to any third party or reproduced by any means without the prior written consent of Aon Solutions Canada, Inc.