



Q4 2023 Outlook

CONTENTS

The Old Normal	1
House View Summary	5
Third Quarter 2023: Market Review	6
Fixed Income Overview	7
Around Mill Creek / Disclosures	8

02 October 2023

The Old Normal

By **Michael Crook**, Chief Investment Officer

“Bond portfolios will continue to bear the burden of rock-bottom yields: currently 1.12% in the taxable bond market and 1.07% in the tax-exempt bond market. Short of a further decline in these yields... the annualized returns that investors can expect from their bond portfolio allocations across the next several years will differ little from these record-low yields.”

Mill Creek Annual Market Perspective, January 4, 2021

At the end of 2020, bond yields were near all-time historical lows, \$18 trillion of government-issued sovereign debt around the world was trading at a negative yield, and 10-year US Treasury Inflation-Protected Securities (TIPS) offered a guaranteed real loss of 1% for the next decade. The so-called *New Normal*, a term used to describe the post-2008 world of slow growth, low inflation, and low interest rates, had hit its apex.

Fast-forward three years and the New Normal has vanished. The extreme policy measures taken after COVID appear to have jolted the global economy — and the US economy in particular — into a new equilibrium. Interest rates, for example, are back at levels not seen since the early 2000s, and monetary policy is being driven by concerns about inflation, not growth. In many ways the New Normal has been replaced by an environment that is very much like the pre-Global Financial Crisis (GFC) world. The Old Normal.

In this quarterly report, we survey the new investment landscape — a world unlike any we’ve seen in two decades — and discuss the short- and long-term portfolio implications for investors. For now, we believe [The Powell Trade](#) (supportive of equities, a headwind for bonds, and positive for “cash +” strategies) remains intact, but we also need to consider how strategic asset allocations should migrate over the next 12–18 months.

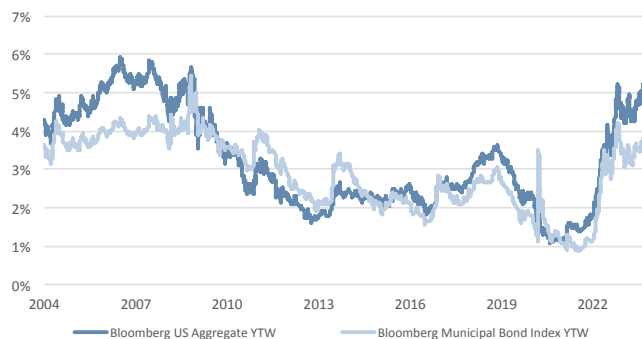
The Temptation of Bonds

We will start with the obvious. Bond yields have risen to levels not seen in at least 15 years (Fig. 1, next page). Between 2004 and 2008, the yields on US taxable bonds and municipal bonds averaged 5% and 4%, respectively. The post-2008 New Normal gave us yields

of 2–3%, but today taxable and municipal bond yields are back at, if not above, their mid-2000s averages.

Fig. 1: Bond yields have returned to pre-2008 levels

Yield-to-worst, 2004–September 22, 2023



Source: Bloomberg, Mill Creek.

Inflation was initially a driving force behind the move higher in bond yields, but real yields (i.e., inflation-adjusted yields) are also back to pre-GFC levels of about 2%. More importantly, market participants expect real yields to stay around 2% even if the Fed lowers the fed funds rate in 2024 (Fig. 2). As we wrote at the beginning of September, the preponderance of the evidence now suggests we’ve seen a regime shift in the bond market. A 1.5–2% real yield, plus 2% inflation, plus a normalized term premium (1%), results in a sustainable 10-year Treasury yield of 4–5%. This is a world that is very similar to the Old Normal.

Fig. 2: Market participants expect real rates to remain elevated

5-year Treasury Inflation-Protected Security 5-year forward rate

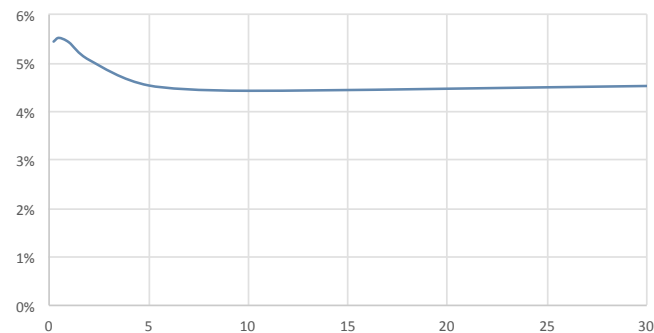


Source: Bloomberg, Mill Creek.

While the strategic outlook is much improved for bond investments, we still face tactical headwinds and *it is too early to fall for the siren song of higher bond yields*. Two factors confound, at least for the moment, a simple “buy bonds” investment narrative: (1) an inverted yield curve (yields on cash are higher than yields on longer-term bonds) (Fig. 3); and (2) a “flat for longer” Fed narrative that we believe will push bond yields higher over the next 12 months.

Fig. 3: The yield curve remains inverted

US Treasury yield curve, 9/22/2023



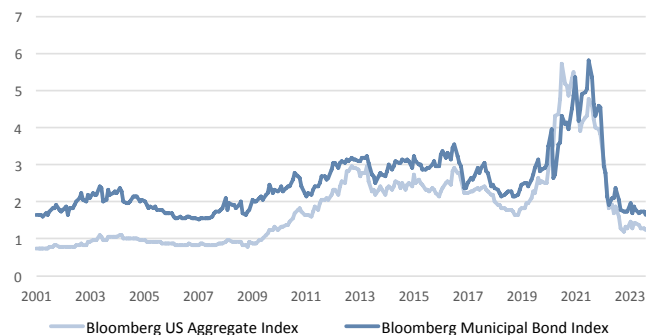
Source: Bloomberg, Mill Creek.

Market participants currently expect the Fed to hike the fed funds rate one more time this year before cutting two times in 2024. Such hopes are premature, and we believe there is a reasonable case to be made that the Fed will forego another hike but not cut rates at all in 2024. This repricing of monetary policy will likely result in upward pressure on bond yields.

Fortunately, Old Normal levels of bond yields have taken a lot of the interest rate risk out of the market for bond investors. For example, a 1% rise in the yield of the Bloomberg Municipal Bond Index would now only result in approximately losing 1.6 years of interest, versus 4–6 years of interest in 2020 and 2021 (Fig. 4).

Fig. 4: Interest rate risk has declined significantly

Years of interest lost due to 1% increase in yield



Source: Bloomberg, Mill Creek. As of 8/31/23.

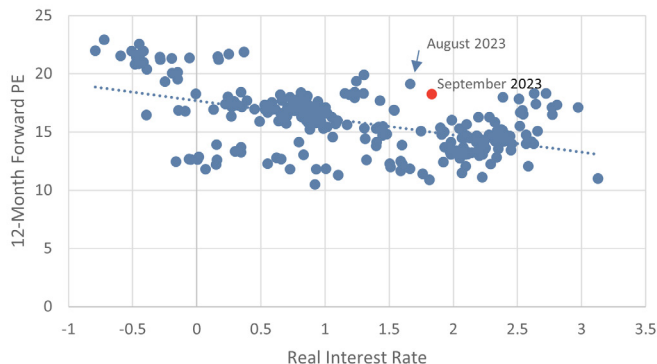
Equity Support, For Now

Higher interest rates generally result in lower equity valuations, and stock market valuations reset downward as rates rose in 2022. Global equities, as proxied by the MSCI All Country World Index, trade at a reasonable 16x forward earnings, but there is a substantial valuation gap between large-cap US and other markets. International developed,

emerging market, and US small-cap equities currently trade at Old Normal 13x, 11.9x, and 12.7x earnings. Large-cap US equities continue to trade at New Normal 18x earnings, which is down from 20x earlier in August but a level we consider to be at the top of the reasonable range for current interest rates (Fig. 5).

Fig. 5: US equity valuations are elevated versus interest rates

2004–September 2023



Source: Bloomberg, Mill Creek.

Higher valuations in US equities are mainly driven by a few names that also happen to hold the largest weightings in US indexes. For example, the top 5 holdings now comprise over 20% of the S&P 500, and forward P/E for the large-cap growth segment of the market is 24x, versus 15x for an equal-weighted version of the S&P 500.

The strong economic environment remains supportive of equities, but extended valuations in US growth stocks put that segment of the market at risk if and when we see upward pressure on interest rates. Our equity portfolios remain biased to the US but well diversified across geographies, size, and style. For those that missed it, our article [“Explaining US \(Stock Market\) Exceptionalism”](#) was a well-received discussion of the factors that drove US outperformance during the New Normal and whether they are repeatable over the next 10–15 years.

TINA, Where Have You Gone?

Another defining characteristic of the New Normal was an unusually high equity risk premium. The equity risk premium (ERP) refers to the expected return between stocks and a safe asset like US Treasury bonds, and the combination of a high equity risk premium and very low interest rates was captured in a commonly used acronym: TINA, or There Is No Alternative to equities, which was simply a way to point out that equities were likely to offer decent returns whereas bonds were not.

Financial economists consider an equity risk premium of about 4% to be normal and near the historical average. After the GFC, the ERP expanded to 8% and remained elevated above 4% until late 2022, but the US ERP has collapsed during the first three quarters of 2023 due to rising interest rates and stubbornly high equity valuations. The ERP currently stands at 3%, the lowest it’s been since 2003. While investors should generally prefer a higher than lower ERP, estimated forward-looking total returns for US equities remain at reasonable levels for the next 7–10 years (Fig. 6).

Fig. 6: The equity risk premium has fallen quickly

S&P 500 estimated ERP, 1999–September 15, 2023



Source: Bloomberg, Mill Creek.

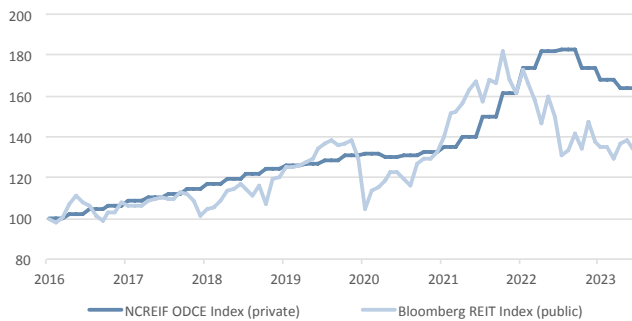
The Powell Trade Lives!

As we discussed in our Q3 2023 report, we believe “cash +” strategies like private debt are well positioned in the current market environment. We believe higher cash rates, along with an inverted yield curve and sustained economic growth, makes these strategies attractive on a relative basis versus core fixed income. For example, a strategy expected to return 3% above cash currently has an estimated annual return of roughly 8.5%, or 1.7x the yield on US taxable fixed income.

We remain less constructive on core real estate and other long-duration private real asset strategies that have yet to fully reset to a higher-for-longer interest rate environment. The NCREIF Open End Diversified Core (ODCE) Real Estate Index has declined 10% over the last year, but — based on our internal analysis — likely has 15% further to drop before reaching parity with publicly traded indexes (Fig. 7, next page).

The strong economic environment remains supportive of equities, but extended valuations in US growth stocks put that segment of the market at risk if and when we see upward pressure on interest rates.

Fig. 7: Private real estate valuations continue to lag public marks
2016–August 2023



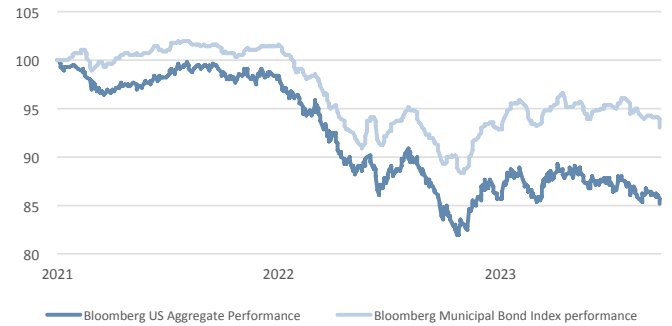
Source: Bloomberg, Mill Creek.

Strategic Asset Allocation – What’s Next?

While all client portfolios at Mill Creek are customized for risk tolerance, illiquidity preference, tax considerations, and investment objectives, our Strategic Asset Allocations, which form the basis for our customized advice, have been 50% underweight bond exposure, in favor of private debt and absolute return strategies, since the beginning of 2021. For example, the starting point (prior to customization) for a 60/40 stock-bond portfolio has been 60% equity, 20% fixed income, 10% private debt, and 10% absolute return.

Fig. 8: Fixed income has performed poorly since 2020

Performance of US taxable and municipal bonds
1/1/2021–9/22/2023



Source: Bloomberg, Mill Creek.

Our underweight to fixed income had a modest performance impact in 2021, but has been an important driver of outperformance since early 2022 (Fig. 8). The question we now face is whether the upward shift in bond yields instructs an asset allocation change. Specifically, should we reduce our underweight to fixed income?

For the reasons discussed in this article, our current underweight to fixed income remains a high conviction position. At the same time, we’re also beginning to preplan how we will reduce the underweight to fixed income if and when the time comes to do so. This will be a topic for quarterly meetings with your Investment Officer through the end of 2023 and into 2024.

House View Summary

Global economy

- We believe we are near the end of coordinated global central bank hiking. The Fed has paused at 5.25–5.5% and will likely remain at that level into 2024. The Bank of England and the European Central Bank hiked to 5.5% and 4%, respectively, in September and are widely expected to remain at those levels.
- Market participants expect the Fed to cut the federal funds rate by 1% in 2024, but we believe some of those cuts will be pushed further into the future.
- US economic growth remains strong and the consumer has been resilient in the face of higher oil prices. The Atlanta Fed GDPNow Index indicates real GDP growth of 4–5% for 3Q23.
- Europe faces concerns about stagflation as inflation has remained stubborn in the face of slow economic growth.
- China continues to be a source of concern for the global economy. New economic data indicates that the economy picked up in August (retail sales and industrial production beat estimates), but home prices continue to fall and salaries have also declined year-over-year in Shanghai.

Market perspective

- A “higher for longer” policy regime will support equities, be a headwind for high-quality fixed income, and be positive for strategies that offer a cash + spread return premium.
- Real interest rates have reverted back to pre-2008 levels. Credit spreads are at or below their long-term averages.
- Significant outperformance of mega-cap growth has left it relatively expensive versus other equity market segments, including small-cap and international equities.

- A [contraction in lending from regional and community banks](#) has provided additional opportunities for private debt strategies.

Portfolio positioning

- We are neutral duration and credit in our taxable and tax-exempt fixed income portfolios.
- Within equities, we are slightly overweight US equities, value equities, [low-volatility equities](#), high-dividend equities, and quality equities.
- We are overweight private lending versus fixed income.
- We recommend allocating a portion of equity exposure to [private equity](#).

Risks we're watching

- Bank lending practices. Lending standards tightened and commercial and industrial loan demand stabilized in May and June.
- Additional geopolitical risk spilling out of China or Russia that would result in supply chain disruptions or an oil price shock.
- Unconstrained fiscal policy has resulted in spiraling emergency-level deficits and leaves little room for maneuvering if the economy was to need support.
- Market-based measures of inflation expectations have moved higher recently. If that trend continues, it could force a new, painful hiking cycle for the Fed.

Please click any link to access additional information and insights.

Third Quarter 2023: Market Review

- US economic growth remains above trend. The Atlanta Fed GDPNow forecast for the third quarter is at 4.9%. The labor market also remains strong. The unemployment rate is 3.7% and aggregate wage growth was 5.7% year-over-year in August.
- Core Personal Consumption Expenditures (PCE) data, the inflation measure that the Fed focuses on, headed in the right direction during 3Q23. The year-over-year rate for change was 3.9% in August.
- Europe is struggling from a combination of sticky inflation, high interest rate, and recession fears. Germany will likely post negative economic growth for calendar year 2023.
- Cross currents continue in China, the world's second largest economy. Worries about deflation have been mitigated by recent growth and inflation data, but the property sector continues to struggle.
- Bond yields rose significantly during the third quarter. The yield on the 10-Year Treasury increased from 3.8% to 4.5%.
- Higher interest rates created headwinds for equity returns. US equities slightly outperformed international equities. Large cap outperformed small cap.

Index Returns	Q3 2023	Q2 2023	Q1 2023	YTD 2023	1 year	3 years	5 years	10 years
Global Equities	-3.4%	6.2%	7.3%	10.1%	20.8%	6.9%	6.5%	7.6%
US Equities	-3.3%	8.4%	7.2%	12.4%	20.5%	9.4%	9.1%	11.3%
Large Cap US	-3.1%	8.6%	7.5%	13.0%	21.2%	9.5%	9.6%	11.6%
Mid Cap US	-4.7%	4.8%	4.1%	3.9%	13.4%	8.1%	6.4%	9.0%
Small Cap US	-5.1%	5.2%	2.7%	2.5%	8.9%	7.2%	2.4%	6.6%
US Growth	-3.3%	12.5%	13.9%	23.8%	26.6%	7.5%	11.7%	13.9%
US Value	-3.2%	4.0%	0.9%	1.7%	14.1%	11.2%	6.0%	8.3%
Int'l Developed Equities	-4.1%	3.0%	8.5%	7.1%	25.6%	5.8%	3.2%	3.8%
Emerging Market Equities	-2.9%	0.9%	4.0%	1.8%	11.7%	-1.7%	0.6%	2.1%
US Taxable Bond Market	-3.2%	-0.8%	3.0%	-1.2%	0.6%	-5.2%	0.1%	1.1%
US Municipal Bond Market	-2.2%	-0.5%	2.0%	-0.8%	2.3%	-1.4%	1.2%	1.7%
Hedge Funds	1.5%	1.7%	0.2%	3.4%	4.3%	6.3%	4.7%	4.0%
Diversified Commodities	4.7%	-2.6%	-5.4%	-3.4%	-1.3%	16.2%	6.1%	-0.7%
Gold	-3.7%	-2.5%	8.0%	1.3%	11.3%	-0.7%	9.2%	3.4%

Key Rates (as of stated date)	9/30/23	6/30/23	3/31/23	12/31/22	9/30/22	9/30/20	9/30/18	9/30/13
US 10-Year Treasury	4.6%	3.8%	3.5%	4.6%	3.8%	0.7%	3.1%	2.6%
Barclays Aggregate Bond Index	5.4%	4.8%	4.4%	5.4%	4.8%	1.2%	3.5%	2.3%
BBarc Muni 1-10Yr Blend (1-12) Index	3.9%	3.1%	2.7%	3.9%	3.6%	0.8%	2.4%	1.9%

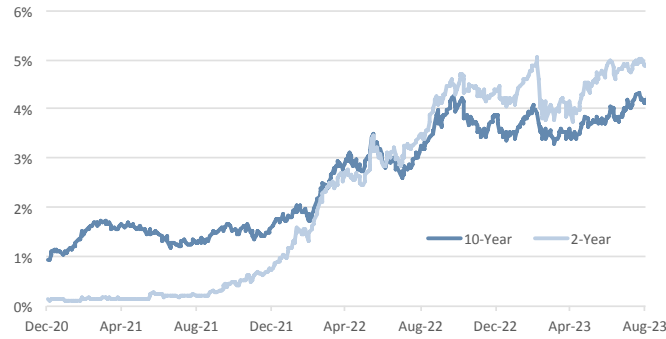
Source: Bloomberg, Mill Creek. Returns for periods greater than one year are annualized. Index rates are yield to worst. Indices used to represent periodic capital markets returns include: MSCI ACWI (Global equities), Russell 3000 (US equities), Russell 1000 (Large Cap US), Russell Mid Cap US (Mid Cap US), Russell 2000 (Small Cap US), Russell 3000 Growth (US Growth), Russell 3000 Value (US Value), MSCI EAFE (International Developed), MSCI Emerging Markets Index (Emerging Markets Equities), Bloomberg Aggregate Bond Index (US Taxable Bonds), Bloomberg 1–10 Year Municipal Bond Index (US Municipal Bonds), Credit Suisse Hedge Fund Index (Hedge Funds), Bloomberg Commodity Index TR (Diversified Commodities), and Gold Spot Price (Gold). The Credit Suisse Hedge Fund Index reports with a lag.

Fixed Income Overview

By Nora Pickens, Managing Director

Fig. 1: Longer maturity bonds have lagged short-duration returns in the current bond bear market

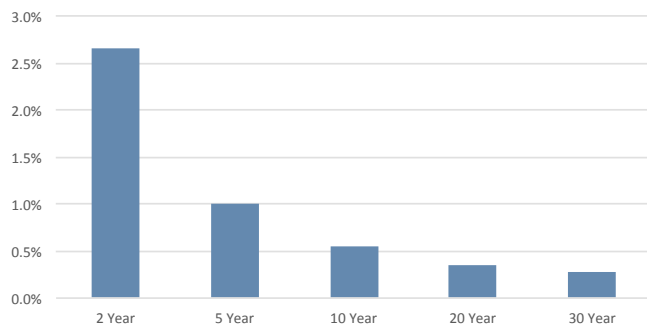
10-year and 2-year US Treasury yield



Source: Bloomberg, Mill Creek.

Fig. 2: Short-term bonds currently offer attractive yield per unit of interest rate risk...

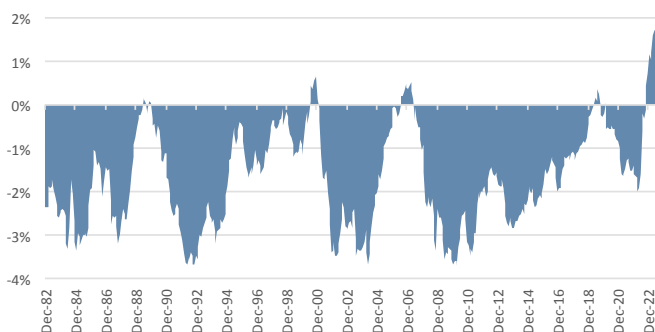
YTW per unit of duration



Source: Bloomberg, Mill Creek.

Fig. 3: And cash is earning its highest yield relative to intermediate bonds in 40 years

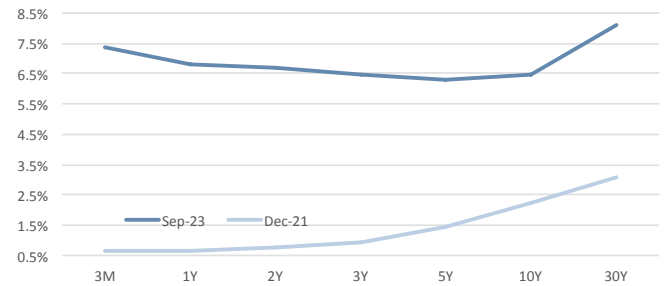
3-month US T-bill yield less 10-year US Treasury yield



Source: Bloomberg, Mill Creek.

Fig. 4: A similar dynamic has played out in the municipal bond market.

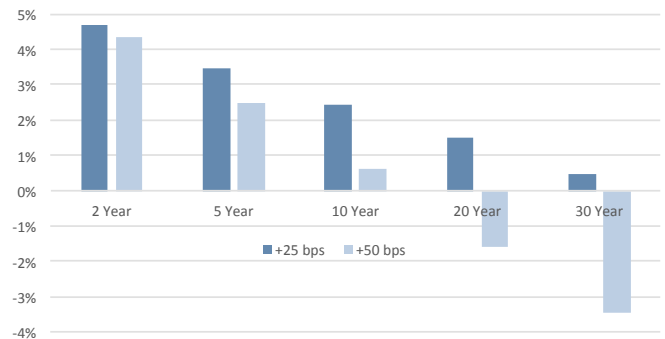
Tax Equivalent Yield General Obligation A Rated Municipal Bond



Source: Bloomberg, Mill Creek.

Fig. 5: Higher starting yields leads to middling returns in a modestly upward trending interest rate environment.

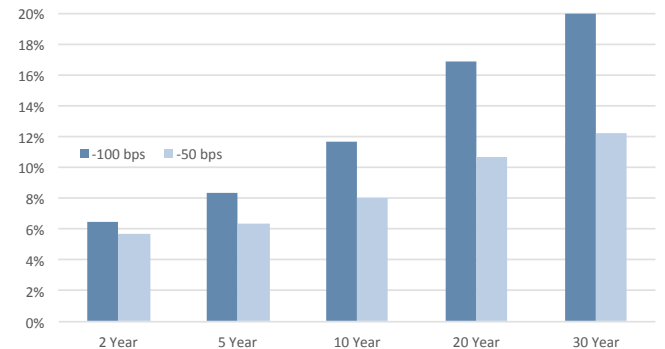
Forward 12-month fixed income returns amid a +25bps and +50bps increase in interest rates



Source: Bloomberg, Mill Creek.

Fig. 6: But strong performance once the Fed's current hiking cycle ends

Forward 12-month fixed income returns amid a -50 bps and -100 bps decrease in interest rates



Source: Bloomberg, Mill Creek.

Around Mill Creek



Topgolf King of Prussia, July 19, 2023

Our team had a blast at our summer outing, where we visited the new Topgolf King of Prussia. We broke out into small groups and enjoyed some friendly competition.

Artificial Intelligence: Outlook on Emerging Trends

Password: Robots2023!



In case you missed it, the replay from our Artificial Intelligence Livestream is now available. Tune in to hear from Andrew Murray, Managing Director of Private Equity, and John Cowgill, Partner at early-stage venture capital firm Costanoa, as they discuss AI's transformative poten-

tial across industries, ethical implications, and the ongoing breakthroughs in AI research.

This information is for educational purposes only. It is not intended to provide, and should not be relied upon for, investment, accounting, legal or tax advice. Access disclosures and important information at millcreekcap.com/legal.

PUBLICATION DETAILS

Investment Strategy Group

Michael Crook, Chief Investment Officer
Sam McFall, Managing Director
Andrew Murray, Managing Director
Nora Pickens, Managing Director
Daniel Bradley, Manager of Private Investments

Project management and editing

Rachel Hassett, Communications Director

Report design

George Stilabower (www.gsdesign.work)

Disclosure

Past performance is no assurance of future results. This publication has been prepared by Mill Creek Capital Advisors, LLC ("MCCA") and is provided for information purposes only. The information contained in this publication has been obtained from sources that MCCA believes to be reliable, but MCCA does not represent or warrant that it is accurate or complete. The views in this publication are those of MCCA and are subject to change, and MCCA has no obligation to update its opinions or the information in this publication. While MCCA has obtained information believed to be reliable, neither MCCA nor any of its respective officers, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this publication or its contents. Unless otherwise noted, all market and price data are through September 30, 2023. Disclosure for third-party websites: This presentation may contain links to other websites, including links to the websites of companies that provide related information, products and services. Such external Internet addresses contain information created, published, maintained or otherwise posted by institutions or organizations independent of MCCA. These links are solely for the convenience of readers to this presentation, and the inclusion of such links does not necessarily imply an affiliation, sponsorship or endorsement. MCCA does not endorse, approve, certify or control these external Internet addresses and does not guarantee or assume responsibility for the accuracy, completeness, efficacy, timeliness or correct sequencing of information located at such addresses. Use of any information obtained from such addresses is voluntary, and reliance on it should only be undertaken after an independent review of its accuracy, completeness, efficacy and timeliness.

Certain of the statements set forth in this commentary constitute "forward-looking statements." All such forward-looking statements involve risks and uncertainties, and there can be no assurance that the forward-looking statements included in this commentary will prove to be accurate. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion of such information should not be regarded as representations or warranties of MCCA and that the forward-looking statements will be achieved in any specified time frame, if at all.

MCCA Capital Markets Assumptions are forward-looking risk, return, and covariance estimates for a range of broad asset classes. They are created using a quantitative and qualitative process that incorporates current global economic and financial market conditions, market derived forecasts, and proprietary forecasts developed by the Mill Creek Investment Strategy Team. Our Capital Market Assumptions reflect our forward-looking views for one market cycle, which MCCA defines as including a bull and bear market. The duration of a market cycle has historically ranged from 2-15 years but are typically 5-10 years in length. The broad asset classes are not representative of any MCCA investment asset allocation strategies and are used to represent general ranges of risk taking.

© 2023, Mill Creek Capital Advisors, LLC. All rights reserved. Trademarks "Mill Creek," "Mill Creek Capital" and "Mill Creek Capital Advisors" are the exclusive property of Mill Creek Capital Advisors, LLC, are registered in the U.S. Patent and Trademark Office, and may not be used without written permission.

MILL CREEK

Our values appreciate yours