MILL CREEK CAPITAL ADVISORS

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Q1 2022 Outlook

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03 Jan 2022

Rebalancing Act

We will be implementing a portfolio rebalance between equities and fixed income, and within equities, in early January[1]. This will be the first systematic portfolio rebalance we've implemented since September 1, 2020.

Rebalancing between stocks and bonds

Since our last rebalance, global equities have appreciated 31% versus 1.6% and -1.3% for municipal bonds and taxable bonds, respectively (Fig. 1). Our model portfolios composed of 60% equities and 40% municipal bonds have drifted to approximately 66% equities as of year-end 2021. Allowing our equity allocations to drift has incrementally added about 0.5% to portfolio performance for a 60/40 portfolio over that period.

We don't follow a specific rule-based rebalancing framework in managing portfolios. While we track and review portfolio drift on an ongoing basis, our decision to rebalance is an active one based on our perspective on the relative attractiveness of stocks versus bonds, expected dispersion between stock and bond returns, and overall risk considerations.

The current rebalance fits firmly in the risk-management category. We don't expect fixed income to perform particularly well, relative to equities, but we also take risk management seriously. Properly sized fixed income allocations play an important role in portfolios, and allowing them to erode significantly means they might not be sufficient exactly when they are needed the most.

[1] The rebalance will be specific to each investor's portfolio depending on investment mandate, entry points, interim cash flows, and/or tax considerations. For these same reasons a portfolio may not require a rebalance.

We recently published **Year Ahead 2022**, which offers our perspective on the future of the economy and financial markets in 2022. Read the report here.

Rebalancing within equities

As part of our shift between stocks and bonds, we also will be rebalancing our intra-equity allocations. Most of the rebalance will be routine adjustments based on performance differentials between geographies and market cap segments, and our equity portfolios will remain overweight US equities and overweight global small cap.

Mill Creek has generally retained a bias toward US equities for 15 years. In 2007, our equity portfolios were allocated about 75% to US equities versus a 43% US weighting in the MSCI All Country World Index (ACWI). We've actively managed the size of our US equity overweight and held a neutral position relative to the global benchmark from late 2018 to early 2020. In March 2020, we added an 8% overweight to US Equities relative to the ASCI Global Equity Index. This resulted in a 65% allocation to US equities with our equity portfolio, and US equities have outperformed international equities by about 37% since then.

We intend to rebalance back to the same 8% overweight US position we implemented in March 2020, but in doing so, our allocation to US equities will increase to 70% (Fig. 2). US outperformance has neutralized much of our US equity preference by continually shifting the market capitalization of the global equity index. We don't expect to permanently retain a US equity overweight, and our absolute exposure to US equities remains near the upper limit of our comfort level (we'd need to allocate over 90% of the portfolio to US equities to match our 2007–2013 overweight), but we continue to believe a moderate overweight position is appropriate for the first half of 2022.

Still hurrying, still waiting...

We recently published our 2022 outlook "Hurry Up and Wait." You can access it using the link on the first page of this report. A more concise summary of our tactical views can be found on page 3. Our Spotlight article, on page 5, provides insight into how equity long-short managers invest in technology and innovation companies. Finally, our perspective on investing lump sums — a challenging proposition in the best of times — can be found on page 6.

We hope you find this content helpful in navigating the tides of 2022. Please reach out to your Investment Officer with any questions or comments.

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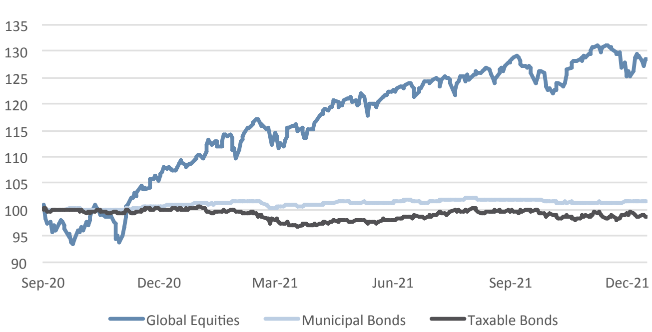
Fig. 1: Equities have significantly outpaced bonds

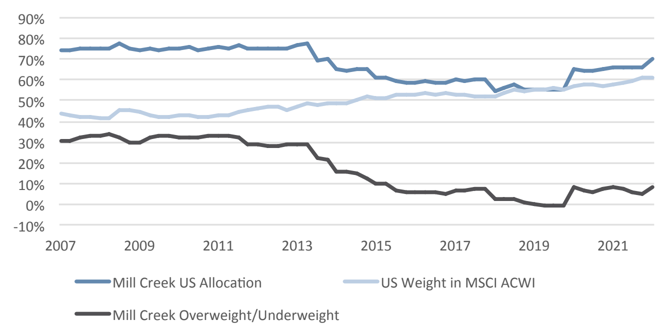
Performance of MSCI ACWI, BBarc 1-10 yr Blend (1-12) Index and BBarc AGG



Source: Bloomberg, Mill Creek

Fig. 2: US equities are now 62% of the global index

US equity weight in the MSCI ACWI and our US position since 2007



Source: Bloomberg, Mill Creek

House View Summary

Global economy

- Global real GDP growth peaked in 2021 at around 6% and will gradually decline to 3–5% for 2022–23.
- Inflation is running hot around the globe, but will likely moderate in 2023. Most major central banks have begun tightening cycles to combat inflation.
- Regional economic growth remains highly dependent on COVID response.

US economy

- The US economy is growing at full capacity. We believe real GDP will average 5–6% in 2021 and 4% in 2022.
- Abnormal frictions in the US labor market have started to subside. Job openings and resignations remain high and labor force participation continues to improve.
- US inflation will continue to run hotter than other developed countries, but the Fed will act appropriately to normalize inflation by mid-2023.
- We are watching aggregate household income growth as a primary indicator that inflation will remain entrenched. The Fed will struggle to bring inflation down if aggregate income growth remains above 5%.

Long view

- High-quality fixed income will likely produce negative real returns, on average, over the next 7–10 years.
- Equity valuation implies positive but lower-than-average returns for US equities over the next 7–10 years.
- Private equity and private credit will play an increased portfolio role in driving investment returns.

Tactical positioning

- We believe fixed income will outperform cash, but neither will offer positive inflation-adjusted returns.
- We maintain our lower-duration (reduced interest rate risk) position in our taxable bond portfolios.
- We are overweight high yield municipal bonds in our tax-exempt FI portfolios.
- Despite speculative behavior in some parts of the equity market, US equities are not exhibiting bubble-like characteristics. Earnings have validated the strong equity market performance over the last 18 months.
- Within equities we are overweight US equities and small cap equities. We are underweight international developed and emerging market equities.

Risks worth watching

- An overly hawkish misstep by the Federal Reserve
- An exacerbation of supply chain constraints due to a deterioration of relations between the US and China (trade), the US and Iran (oil prices), or additional port closures in China (COVID)
- Destabilizing geopolitical tensions related to China-Taiwan relations

Please click any link to access additional information and insights.

Fourth Quarter 2021 Market Review

- Markets shrugged off accelerating inflation, the Omicron COVID-19 variant, and a hawkish pivot from the Federal Reserve.
- The Federal Reserve doubled its pace of asset purchase tapering at its December meeting and now expects to hike rates three times in 2022.
- Inflation expectations declined during the fourth quarter. Market participants now expect inflation to average 3.2%, 2.8%, and 2.7% over the next 2, 3, and 5 years, respectively.
- Bond markets priced in a more-hawkish Fed. Shorter-term interest rates (1-7 year maturities) rose and longer-term interest rates fell over the course of the quarter.
- Bond market returns were flat to negative over the quarter.
- Dollar strength (+6.5% in 2021) has created a headwind for international equities. US equities outperformed international equities. US large cap outperformed mid and small cap. US Growth outperformed US Value. FAANG stocks stalled in the fourth quarter relative to the overall market but outperformed over the course of 2021.
- Commodity prices moderated during the fourth quarter due to the reopening of supply chains, hawkish central bank pivots, and concerns around Omicron restrictions.

Benchmark Returns	Q4 2021	2021	3 years	5 years	10 years
Global Equities	6.2%	18.5%	20.4%	14.4%	11.9%
US Equities	8.0%	25.7%	25.8%	18.0%	16.3%
Large Cap US	8.5%	26.5%	26.2%	18.4%	16.5%
Mid Cap US	5.1%	22.6%	23.3%	15.1%	14.9%
Small Cap US	0.0%	12.6%	24.2%	15.5%	15.1%
US Growth	9.7%	25.8%	33.2%	24.6%	19.4%
US Value	6.2%	25.4%	17.6%	11.0%	12.9%
International Equities	3.5%	11.3%	13.5%	9.5%	8.0%
Emerging Market Equities	-0.8%	-2.5%	10.9%	9.9%	5.5%
US Taxable Bond Market	-0.3%	-1.5%	4.8%	3.6%	2.9%
US Municipal Bond Market	0.2%	0.5%	3.4%	3.1%	2.6%
Hedge Fund Index	-0.1%	5.7%	8.3%	5.6%	4.5%
Diversified Commodities	-1.7%	27.1%	9.9%	3.7%	-2.9%
Gold	3.9%	-3.6%	12.6%	9.8%	1.6%

Key Rates (as of stated date)	12/31/21	12/31/20	12/31/18	12/31/16	12/31/11
US 10-Year Treasury	1.5%	0.9%	2.7%	2.4%	1.9%
Barclays Aggregate Bond Index	1.8%	1.1%	3.3%	2.6%	2.2%
BBarc Muni 1-10Yr Blend (1-12) Index	0.7%	0.6%	2.2%	2.1%	1.7%

Source: Bloomberg, Mill Creek. Returns for periods greater than one year are annualized. Benchmark rates are yield to worst. Data as of December 31, 2021.

Benchmarks 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, 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), Barclays Aggregate Bond Index (US Taxable Bonds), Barclays 1–10 Year Municipal Bond Index (US Municipal Bonds), HFRI Fund of Funds Composite Index (Hedge Funds); Bloomberg Commodity Index TR (Diversified Commodities), Gold Spot Price. Hedge fund data generally trails by one month due to lags in reporting.

SPOTLIGHT

Investing in Technology & Innovation

While we prefer to partner with generalist managers in our long-only equity portfolio, we have a strong preference for specialist managers in hedge funds. We believe certain sectors and markets have inherently high dispersion and are attractive opportunity sets for long-short investing. The technology sector is a case in point.

The technology adoption S-curve

Technology is ubiquitous and ever-changing; therefore it is critical to understand where technologies are on the adoption curve (Fig. 1). Based on current adoption rates and the competitive landscape, tremendous growth opportunities are likely in financial payments, health care, cloud security, electric vehicles, and artificial intelligence, among other areas.

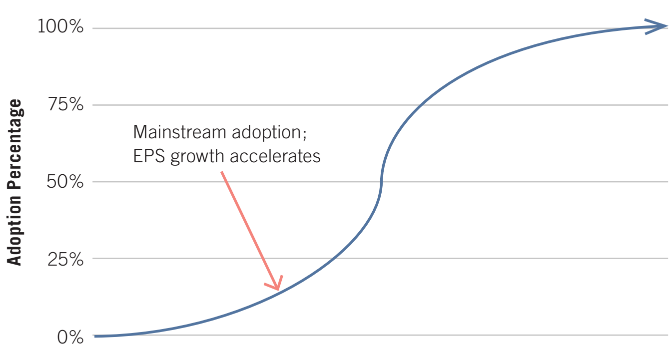
For example, consumer preference for online shopping accelerated during the last 2 years, but online shopping is still in the relatively early days of its adoption cycle. The number of consumers using e-commerce, and the percentage of purchases occurring online, are both likely to continue to increase[1].

Approximately 80% of consumers in the US shop online, but the share of e-commerce in retail sales, 13%, remains below the global average of about 20%.

On the other hand, 44% of retail sales are already online in China, but overall internet penetration remains far below the US and other developed countries. A third of China's population does not yet shop online.

Fig. 1: Technology adoption isn't linear

The technology S-curve



Source: Originally specified by Bohlen, Joe M.; Beal, George M. (May 1957). "The Diffusion Process." Special Report No. 18. 1: 56–77. Illustration by Mill Creek.

Distinguishing Facebook from Myspace

Growth of an industry, unfortunately, does not guarantee shareholder returns. Readers might recall that social media platform Myspace was valued at $12bn in 2007 and only $35mn in 2012. As occurs with any new technology, hundreds of firms have been formed to try and take advantage of the digitization trend.

When a product cycle is about to inflect and a company has a distinct competitive advantage, their earnings power may be underappreciated and poised for exponential growth. On the other hand, many firms have — at best — modest competitive advantages, speculative valuations, and poor fundamental outlooks. Market pricing doesn't always fully differentiate between these winners and losers, creating an opportunity for long-short investors that can do so.

Shorting for Alpha

A long-short manager will sell borrowed shares to bet against the near-term prospects of a company. The environment for shorting company stocks in 2021 was particularly difficult, but we believe that our specialist managers will continue to use shorting as a tool to generate alpha and manage downside risk in 2022. The current market setup looks particularly attractive to short sellers once again as the combination of extreme valuations, poor business fundamentals, and the significant pull forward of returns during the global pandemic have created the potential opportunity to bet against tomorrow's losers.

Participating in private markets

Today, many companies are staying private longer, leading some hedge fund managers to include private securities within their opportunity set. Within the technology sector, the focus has been on later-stage growth companies in the software and payments space that are typically 1–3 years from their initial public offering (IPO). While private securities introduce new risk factors in the portfolio, we believe it is a risk worth taking when sized appropriately, and we saw a number of pre-IPO deals result in liquidity events in 2021.

1. https://www.statista.com/statistics/187439/share-of-e-commerce-sales-in-total-us-retail-sales-in-2010/

Investing Lump Sums

Key message

Many investors struggle over the best way to invest a lump sum received from the sale of a business, an inheritance, a retirement distribution, or other liquidity event. While sitting in cash can lead to the inflation-related erosion of purchasing power, the potential losses from a poorly timed market correction loom large. We believe investors should defer to psychological considerations and incorporate "regret minimization" into their process for investing lump sums of cash. Investors are unlikely to improve outcomes by deferring implementation more than 12 months, but short-lived corrections of 5–15% occur nearly every year. An ideal strategy averages into equity markets over 12 months while actively accelerating implementation during market drawdowns, should they occur.

Our view

1. Equity markets frequently trade near all-time highs

- Investors should not be particularly concerned about investing when equity markets are near all-time highs.
- Historically, equity markets have traded at or near (within 10%) all-time highs over 60% of the time (Fig. 1).
- More importantly, all-time highs do not foreshadow low returns or bear markets (Fig. 2).
- Multi-year returns are similar, if not slightly better, when the implementation point is near an all-time high.

2. The probability of a better entry point declines quickly after one year

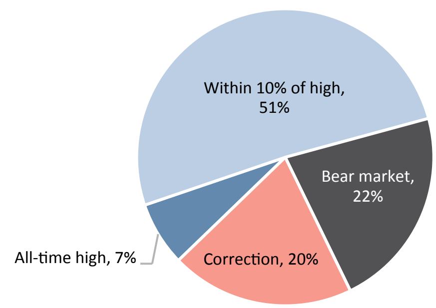
- Pullbacks of 5-15% occur nearly every year (Fig. 3), but recoveries tend to be fairly fast.
- Historically, the probability of a 5% or larger pullback within the next 12 months is about 50%. This means that an investor will not gain an appreciably better entry point about half the time.
- The probability of another pullback in the second or third year that's meaningfully better than the initial year's entry points is only 10–15%.

3. A prudent approach balances opportunity cost with regret minimization

- Most investors shouldn't invest their lump sum all at once. Averaging into equity markets provides a reasonable chance at better entry points.
- However, delaying too long carries a considerable opportunity cost. Delaying equity implementation for more than one year will lead to lower returns more than 85% of the time.
- We suggest creating a 12-month plan for full implementation that allows for accelerating implementation tranches after a 5% or greater sell-off.

Fig. 1: Markets usually trade near all-time highs

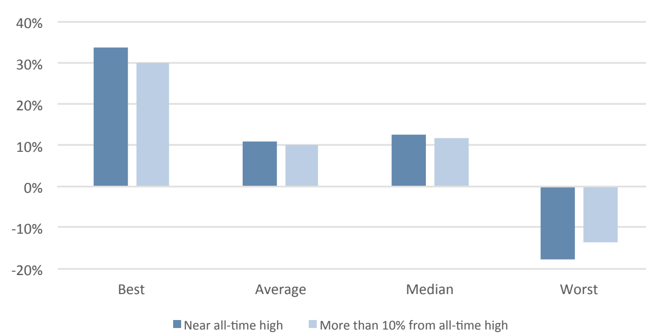
Time spent in each environment, 1945–2021



Source: Bloomberg, Mill Creek

Fig. 2: Market highs don't foreshadow deep declines

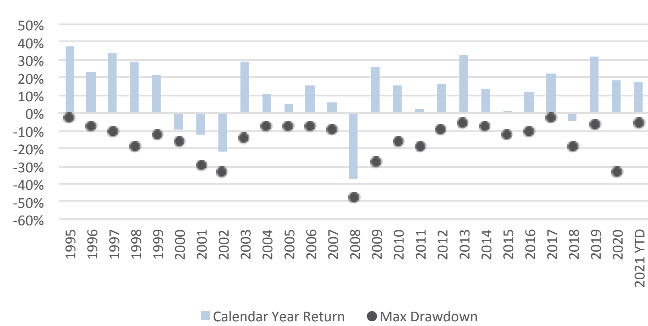
3-year annualized performance



Source: Bloomberg, Mill Creek; 3-year annualized performance. Jan 1990–Dec 2021.

Fig. 3: Short-lived 5–15% corrections are commonplace

Annual S&P 500 performance and max drawdown



Source: Bloomberg, Mill Creek

Happenings at Mill Creek

Firm highlights, milestones, events, and resources

Mill Creek Announces Chief Investment Officer Transition Plan

Michael Crook
Chief Investment Officer

Tom Chapin
Investment Committee Chairperson

Michael Crook has been named Chief Investment Officer at Mill Creek. In his new role, Michael leads the firm's Investment Strategy and Communications business units. He is responsible for managing the investment team, overseeing manager due diligence, and asset allocation decisions.

Tom Chapin has transitioned to Chairman of the Investment Committee. In his new role, Tom will provide governance and oversight over all decisions actioned by the Committee.

Read the full release.

Year Ahead 2022: Hurry Up and Wait

Our Year Ahead publication serves as a roadmap for what lies ahead in 2022. Will a hawkish Fed successfully tame inflation or drive the economy into a recession? Which asset classes have the best prospective outlooks? Which geopolitical risks are we watching heading into 2022? We cover these questions and others in "Hurry Up and Wait."

Read the full report.

Wealth & Wisdom: Going Beyond Giving

In our latest Wealth & Wisdom LiveStream, we discussed key giving strategies and tax considerations to maximize your philanthropic impact. We were joined by panelists **Rebecca Miller**, Director at Fidelity Charitable, **Janet Haas**, Board Chair of the William Penn Foundation, and **Pat Burke**, Principal at Mill Creek.

Watch the replay.

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Wealth & Wisdom: Igniting the Conversation with the Next Generation

The greatest wealth transfer in modern history is underway. In the first LiveStream of our Wealth & Wisdom series, we discuss the best practices behind raising financially fit children and beginning the conversation around generational wealth with the next generation. We were joined by panelists **Joline Godfrey**, Chief Creative Officer at The Unexpected Table, **Daniel Crosby**, Chief Behavioral Officer at Orion, and **Katie Poole**, Principal at Mill Creek.

Watch the replay.

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