MONTHLY MARKET UPDATE
October 2023

Highlights:

- The benchmark 10-year Treasury yield rose sharply to over 4.5%, driving down the value of bonds.
- Equity markets sold off as well, with the S&P 500 falling 4.8% in September.
- Rate cuts have been removed from the Fed's dot plot, further reinforcing the "higher for longer" narrative.

As we enter the final quarter of 2023, it's worth looking back at the often calamitous times we've recently experienced. An unparalleled pandemic with its associated lockdowns and supply chain disruptions, the ensuing unprecedented fiscal stimulus shifting into persistent inflation which, in turn, resulted in the sharpest interest rate increases in Federal Reserve history. Two years ago, the Fed Funds rate was basically zero, now it is 5.3%. Two years ago, you could obtain a 30-year fixed mortgage for under 3%, now the national average is 7.8%. Over the past month the price of a barrel of oil spiked into the mid-90s, during the Covid crisis it had dropped below 30 dollars. Is it any wonder that in the wake of all this roiling the bond and stock markets continued to show signs of volatility and unpredictability?

In September, bonds experienced unusual price fluctuations as the benchmark 10-year Treasury yield rose just short of one-half percent in the month, rising through the third quarter from 3.85% to 4.57%. This spike drove down the value of bonds, with the aggregate bond index dipping -2.5% for the month, pushing the year-to-date return to -1.21%. The S&P 500® Index dropped -4.8% in September, bringing the year-to-date gain to 13.1%. As we've been noting throughout this year, the market continued its narrowness. Just 12 stocks have driven almost all of the S&P 500's gains so far this year, with the remaining stocks in the Index nearly flat. In September, the only positive sector was Energy, up 4.5% behind the rising price of oil. Bond proxy Utilities and Real Estate were down big, -5.6% and -7.2% respectively. Technology also took a hit, down -6.9%.

While it's difficult to parse cause and effect in a market subject to so many unusual pressures, one factor weighing on stocks was the recognition that the Federal Reserve might best be taken at its word for projecting high rates for some time and may even boost rates another quarter point before year end. Federal Reserve members polled a consensus for just 50 basis points (.5%) of cuts in 2024, while market futures project 100 basis points of cuts. While the leading economic indicators showed mixed results and third quarter GDP growth is projected to be robust, evidence is growing for weakness in consumer spending, which has helped prop up economic numbers over the trailing years. The nation's largest used car retailer surprised investors by showing a nearly 10% drop in year-over-year auto sales, while the low-end dollar retailers reported dipping earnings as consumers focused spending on low-margin essentials such as food. Meanwhile, credit card debt continued to climb.

In the end, the down month helped moderate extended stock valuations, with the forwarding-looking market price-to-earnings ratio dropping from 19.1x to 17.8x. We've been warning investors throughout this year that stock index gains have masked much of the underlying turmoil in the economy. We expect this too to moderate going forward.

PORTFOLIO MANAGER Q&A - JOE MAGINOT

Joe Maginot, CFA
Portfolio Manager, Analyst

Despite interest rates at their highest levels in 20 years, the equity market has been pricing a projected double-digit earnings growth for 2024. Why do investors remain optimistic about stocks?

Last year (2022) was characterized by inflation continually surprising to the upside. Some of the factors that led to that jump in inflation, such as supply chain pressures, wage inflation, rising commodity prices, particularly oil, have largely normalized this year. That's been one piece of optimism for investors.

Another would be the economic resilience in the face of higher rates and the regional banking crisis earlier this year. Then there's the infrastructure bill and Inflation Reduction Act that have spurred the economy and given corporations the confidence to invest. And, of course, the consumer has remained strong. So by in large, some of the economic data that was expected to roll over this year really hasn't. That's given investors some confidence. Then you layer on top of that the enthusiasm for artificial intelligence (AI) and how it has been incorporated into businesses and consumer lives, and in this backdrop, there is a lot for investors to be optimistic about.

Have you had any changes in your conviction as it relates to Financials, following the issues with regional banks, or Technology, with new developments in AI?

I'll start with regional banks. We're very risk conscious investors to begin with. So, we didn't have a lot of exposure to regional banks by the very nature of their business models. It's a spread business. There are a lot of things that are outside of management's control within those businesses. The liquidity issues from earlier this year illustrate some of the risks that come from a concentrated deposit base. Not just business versus retail, but also geographically and the percentage of a bank's deposits above or below the FDIC limits. So, on the margin, the regional banking issues lowered our confidence, given the amplification of some of the risks that have always existed. The financials that we have in our portfolio, we believe, are much more resilient. A couple of companies generate earnings from net interest margin, but also have a large percentage of earnings that come from fee-related revenue.

As it relates to AI, the key question for us is: is this a platform shift, where technologies of the past become obsolete, or will the technology be integrated through existing platforms? We went through and analyzed each of our portfolio companies along these factors. And we concluded that a lot of our companies were already incorporating AI within their current offering, even if it isn't consumer or customer facing. Think of payment companies and how they incorporate AI into authorization decisions to better identify fraud and so on. We also asked, 'what type of risks and opportunities could this present for our companies?' For the most part, we didn't believe the threat of AI would obsolesce the current business models, and, in fact, thought it would largely be additive to the business.

Markets are always changing. How do you ensure consistency of your investment approach as the markets change?

We want consistency across the types of companies we invest in and the valuations that we pay. We only invest in high quality companies. It's not just the business quality by itself, but the way we think about quality includes the balance sheet, the management team, and how the company is governed. To ensure consistency, we have what we call our confidence rankings, where across each of the quality factors, we rate companies on a one through five basis, with one being the lowest confidence and five being the highest. We only invest in companies that are rated three and above. What this enables us to do is compare and contrast the stocks we own not only relative to one another, but also relative to the stocks that we don't own. It enables us to maintain a consistency of owning what we deem to be high quality businesses, regardless of the underlying market conditions, however they may change.

The second component is valuation, and we are constantly making adjustments to our valuations of companies. You can't just look at stated profits and assume they will endure into the future. Companies participate in the economy, and sometimes these markets can run a little bit hotter than other times and a company can be over-earning. Or, when markets are weak, a company can be under-earning relative to long-term trends. So, we make those types of adjustments to make sure that we arrive at what we believe to be true economic earnings of the business. And, because we want to earn above-average returns with below average risk over the long-term, we don't move our discount rates based on short-term metrics like current treasury yields.

What is your outlook for markets, and where are you finding opportunities?

Overall, we think there are pockets of opportunity. But we try to temper investors' expectations. In the last 12 to 14 years, it has been a very robust market environment. We saw declining interest rates, declining tax rates, expanding valuation multiples, and these characteristics are unlikely to repeat and have a similar type of impact over the next five to ten years. So, we always try to set appropriate expectations for returns. But that said, we think there are a lot of opportunities out there right now. The U.S. equity markets, especially in the large cap space, are very narrow, where the markets are being driven by a smaller subset of companies. And as a result, certain parts of the market have been left behind. Some of the areas we are finding value today include health care, financials, and technology, particularly in analog chips. Within healthcare, life science tools are certainly out of favor today. This is an area where, as I discussed earlier, we are constantly adjusting our valuations of these companies to reflect what believe to be the true economic earnings of the business. In the years shortly after the COVID shutdowns, demand for these products was very robust. As demand normalized over the last year and a half, the market overreacted, in our opinion. Markets tend to overshoot in one direction and overshoot in the other direction. And that's led to opportunities within these sectors.

U.S. EQUITIES (%)

	Sept	QTD	YTD	1 Year	3 Year	5 Year	10 Year
DJ Industrial Average	-3.4	-2.1	2.7	19.2	8.6	7.1	10.8
S&P 500	-4.8	-3.3	13.1	21.6	10.2	9.9	11.9
Russell 1000	-4.7	-3.1	13.0	21.2	9.5	9.6	11.6
Russell 1000 Value	-3.9	-3.2	1.8	14.4	11.1	6.2	8.4
Russell 1000 Growth	-5.4	-3.1	25.0	27.7	8.0	12.4	14.5
Russell Midcap	-5.0	-4.7	3.9	13.4	8.1	6.4	9.0
Russell 2000	-5.9	-5.1	2.5	8.9	7.2	2.4	6.6

U.S. EQUITY SECTORS - S&P 500 (%)

	Sept	QTD	YTD	Weight
Communication Services	-3.3	3.1	40.4	8.9
Consumer Discretionary	-6.0	-4.8	26.7	10.7
Consumer Staples	-4.5	-6.0	-4.8	6.6
Energy	2.6	12.2	6.0	4.7
Financials	-3.1	-1.1	-1.6	12.8
Health Care	-3.0	-2.7	-4.1	13.4
Industrials	-6.0	-5.2	4.5	8.3
Information Technology	-6.9	-5.6	34.7	27.5
Materials	-4.8	-4.8	2.6	2.5
Real Estate	-7.2	-8.9	-5.4	2.4
Utilities	-5.6	-9.2	-14.4	2.4

U.S. EQUITY CHARACTERISTICS - S&P 500

	Sept	2022
Price/Earnings Ratio	18.0	19.1
Weighted Avg. Market Cap ($B)	631.0	417.5
Dividend Yield (%)	1.6	1.7

INTERNATIONAL EQUITIES (%)

	Sept	QTD	YTD	1 Year	3 Year	5 Year	10 Year
ACWI	-4.1	-3.4	10.1	20.8	6.9	6.5	7.6
ACWI ex USA	-3.2	-3.8	5.3	20.4	3.7	2.6	3.3
MSCI EAFE	-3.4	-4.1	7.1	25.6	5.8	3.2	3.8
Emerging Markets	-2.6	-2.9	1.8	11.7	-1.7	0.6	2.1
China	-2.8	-1.9	-7.3	5.2	-14.3	-4.2	1.7
Japan	-2.1	-1.6	11.2	25.9	2.8	2.1	4.4
Germany	-5.9	-7.7	8.8	35.5	-0.3	0.3	2.0
United Kingdom	-0.8	-1.5	6.8	24.9	12.1	2.9	2.5
India	1.7	2.7	8.0	10.1	14.9	9.8	9.8

KEY ASSET PRICES

	Sept	2022
USD/EUR	1.06	1.06
CAD/USD	1.35	1.36
JPY/USD	148.2	132.78
USD/GBP	1.22	1.21
Bitcoin ($)	26,967.9	16,514.0
Gold ($/oz)	1,853.0	1,827.0
Crude Oil (WTI) ($/bbl)	89.7	80.4

FIXED INCOME (%)

	Sept	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Government Bond	-2.2	-3.0	-1.4	-0.7	-5.7	0.0	0.7
Municipal	-2.9	-3.9	-1.4	2.7	-2.3	1.0	2.3
U.S. Aggregate Bond	-2.5	-3.2	-1.2	0.6	-5.2	0.1	1.1
Investment Grade Corporate	-2.6	-3.0	0.0	3.5	-4.8	0.9	2.1
High Yield	-1.2	0.5	5.9	10.3	1.8	3.0	4.2

U.S. TREASURY YIELDS (%)

	Sept	2022
3-Month	5.6	4.4
6-Month	5.5	4.8
2-Year	5.0	4.4
5-Year	4.6	4.0
10-Year	4.6	3.9
30-Year	4.7	4.0

DISCLOSURES

"Madison" and/or "Madison Investments" is the unifying tradename of Madison Investment Holdings, Inc., Madison Asset Management, LLC ("MAM"), and Madison Investment Advisors, LLC ("MIA"). MAM and MIA are registered as investment advisers with the U.S. Securities and Exchange Commission. Madison Funds are distributed by MFD Distributor, LLC. MFD Distributor, LLC is registered with the U.S. Securities and Exchange Commission as a broker-dealer and is a member firm of the Financial Industry Regulatory Authority. The home office for each firm listed above is 550 Science Drive, Madison, WI 53711. Madison's toll-free number is 800-767-0300.

Any performance data shown represents past performance. Past performance is no guarantee of future results.

Non-deposit investment products are not federally insured, involve investment risk, may lose value and are not obligations of, or guaranteed by, any financial institution. Investment returns and principal value will fluctuate.

This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security.

Although the information in this report has been obtained from sources that the firm believes to be reliable, we do not guarantee its accuracy, and any such information may be incomplete or condensed. All opinions included in this report constitute the firm's judgment as of the date of this report and are subject to change without notice.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only, and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Large Cap investing is based on the expectation of positive price performance due to continued earnings growth or anticipated changes in the market or within the company itself. However, if a company fails to meet that expectation or anticipated changes do not occur, its stock price may decline. Moreover, as with all equity investing, there is the risk that an unexpected change in the market or within the company itself may have an adverse effect on its stock. Investing in growth-oriented stocks involves potentially higher volatility and risk than investing in income-generating stocks. The biggest risk of equity investing is that returns can fluctuate and investors can lose money.

The Dow Jones Industrial Average® (The Dow®), is a price-weighted measure of 30 U.S. blue-chip companies. The index covers all industries except transportation and utilities.

The S&P 500® Index is an unmanaged index of large companies and is widely regarded as a standard for measuring large-cap and mid-cap U.S. stock-market performance. Results assume the reinvestment of all capital gain and dividend distributions. An investment cannot be made directly into an index.

The Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000® Index, which represents approximately 89% of the total market capitalization of the Russell 3000 Index.

The Russell 1000® Growth Index is designed to track those securities within the broader Russell 1000 Index that FTSE Russell has determined exhibit growth characteristics.

The Russell 1000® Value Index is designed to track those securities within the broader Russell 1000 Index that FTSE Russell has determined exhibit value characteristics.

Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 11% of the total market capitalization of the Russell 3000® Index.

The Russell Midcap® Index measures the performance of the mid-cap segment of the U.S. equity universe. The Russell Midcap® Index is a subset of the Russell 1000® Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership.

Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

International Equities Definitions

The MSCI ACWI ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets countries (excluding the US) and 23 Emerging Markets countries. With 1,843 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.

The MSCI EAFE (Europe, Australasia & Far East) Index is a free-float adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada.

Emerging Markets - MSCI Emerging Market Index – captures large and mid cap representation across 24 Emerging Markets (EM) countries. With 1,138 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

China - MSCI China Index - captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs).

Japan - MSCI Japan Index - is designed to measure the performance of the large and mid cap segments of the Japanese market.

Germany - MSCI Germany Index - is designed to measure the performance of the large and mid cap segments of the German market.

United Kingdom - MSCI United Kingdom Index - is designed to measure the performance of the large and mid cap segments of the UK market.

India - MSCI India Index - is designed to measure the performance of the large and mid cap segments of the Indian market.

Fixed Income Definitions

Government Bond - Bloomberg US Government Index - measures the performance of the U.S. Treasury and U.S. Agency Indices, including Treasuries and U.S. agency debentures. It is a component of the U.S. Government/Credit Index and the U.S. Aggregate Index.

Municipal - Bloomberg U.S. Municipal Index - covers the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and prerefunded bonds.

U.S. Aggregate Bond - Bloomberg U.S. Aggregate Bond Index - is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, mortgage backed securities, asset-backed securities and corporate securities, with maturities greater than one year.

Investment Grade Corporate - Bloomberg U.S. Credit Index - measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

High Yield - Bloomberg U.S. Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Bloomberg EM country definition, are excluded.

Definitions

Weighted Avg. Market Cap: measures the size of the companies in which the portfolio invests. Market capitalization is calculated by multiplying the number of a company's shares outstanding by its price per share.

Price-to-Earnings (P/E) Ratio: measures how expensive a stock is. It is calculated by the weighted average of a stock's current price divided by the company's earnings per share of stock in a portfolio.

Dividend Yield: the portfolio's weighted average of the underlying portfolio holdings and not the yield of the portfolio.

A basis point is one hundredth of a percent.

Madison INVESTMENTS