

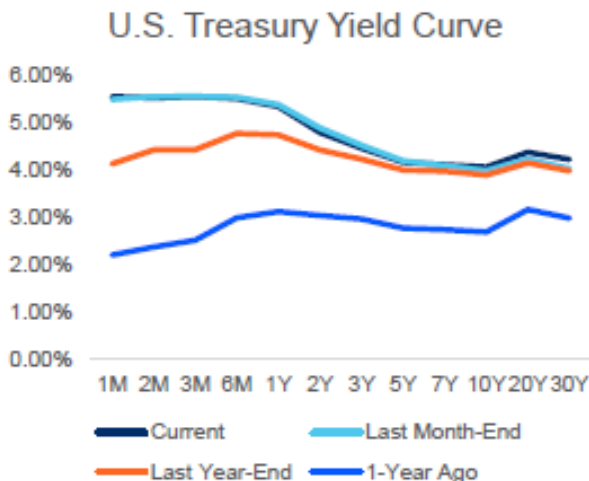
Capital Markets Snapshot

Week ending August 4, 2023

The markets were dealt a surprise this week when rating agency Fitch downgraded U.S. debt from AAA to AA+. Fitch stated that the move was due to “expected fiscal deterioration, a high and growing general government debt burden, and the erosion of governance”. In other economic news, the July Non-Farm payroll report on Friday brought a mixed outlook for the market. While the overall gain of 187,000 jobs was below expectations, wages grew faster than expected and are now up 4.4% on an annual basis.

Fixed Income Markets Overview

- Bond prices fell following the news of the Fitch downgrade resulting in an increase in yields.
- The U.S. Treasury announced an increase in the amount of their quarterly refunding of long-term Treasury Bonds, from \$96 billion to \$102 billion. This marked the first increase in over two years.
- CME Fedwatch is currently reflecting an 86% probability of the FOMC keeping rates constant at their September meeting.
- After a recent policy change allowing for an increased range on their long-term bond, Japan’s 10-year government bond saw its highest rate in nine years this week as it hit 0.605%.



Source: Bloomberg and U.S. Treasury as of August 4, 2023

| Asset Class | Name | 1W | YTD | 3Y(Ann.) | 5Y(Ann.) |
|-------------|----------------------------|--------|-------|----------|----------|
| Short | 1-3 Year Govt/Credit | 0.24% | 1.75% | -0.77% | 1.17% |
| | Core Plus | | | | |
| Core Plus | Intermediate Govt/Credit | 0.07% | 1.73% | -2.65% | 1.25% |
| | International Aggregate | -0.83% | 1.37% | -6.05% | -1.01% |
| | US Aggregate | -0.59% | 1.29% | -4.71% | 0.58% |
| | US Treasury | -0.40% | 0.70% | -5.41% | 0.33% |
| | US TIPS | -0.41% | 1.49% | -1.18% | 2.51% |
| | US Corporate | -0.79% | 2.51% | -4.77% | 1.43% |
| Other | US Corporate High Yield | -0.36% | 6.22% | 1.68% | 3.26% |
| | Emerging Markets Aggregate | -0.73% | 3.53% | -3.86% | 0.79% |
| Muni | US Municipals | -1.26% | 1.79% | -1.50% | 1.63% |
| | US Municipals High Yield | -1.72% | 3.26% | 0.36% | 2.49% |

Source: Bloomberg as of August 4, 2023

| Interest Rates (%) | | | | |
|------------------------------------|----------|-----------|------------|----------|
| Date | 8/4/2023 | 7/31/2023 | 12/30/2022 | 8/4/2022 |
| Federal Funds Rate | 5.54% | 5.48% | 4.12% | 2.19% |
| 3 Month Treasury | 5.54% | 5.55% | 4.42% | 2.50% |
| 6 Month Treasury | 5.50% | 5.53% | 4.76% | 2.98% |
| 2 Year Treasury | 4.78% | 4.88% | 4.41% | 3.03% |
| 5 Year Treasury | 4.15% | 4.18% | 3.99% | 2.76% |
| 10 Year Treasury | 4.05% | 3.97% | 3.88% | 2.68% |
| 30 Year Treasury | 4.21% | 4.02% | 3.97% | 2.97% |
| US Aggregate | 4.91% | 4.85% | 4.68% | 3.46% |
| US Corporate | 5.55% | 5.45% | 5.42% | 4.33% |
| US Corporate High Yield | 8.51% | 8.30% | 8.96% | 7.55% |
| US Municipal | 3.72% | 3.50% | 3.55% | 2.77% |
| US Municipal High Yield | 5.87% | 5.70% | 5.83% | 4.97% |
| Spreads Over 10-Year US Treasuries | | | | |
| Date | 8/4/2023 | 7/31/2023 | 12/30/2022 | 8/4/2022 |
| 30 Year Treasury | 0.16% | 0.05% | 0.09% | 0.29% |
| US Aggregate | 0.86% | 0.88% | 0.80% | 0.78% |
| US Corporate | 1.50% | 1.48% | 1.54% | 1.65% |
| US Corporate High Yield | 4.46% | 4.33% | 5.08% | 4.87% |
| US Municipal | -0.33% | -0.47% | -0.33% | 0.09% |
| US Municipal High Yield | 1.82% | 1.73% | 1.95% | 2.29% |

Source: Bloomberg and U.S. Treasury as of August 4, 2023

Equity Markets Overview

- All three major equity indices were down for the week with the Nasdaq seeing the biggest decline, down by 2.8%.
- Energy was the only positive S&P sector this week, up 1.2%. The biggest losses were seen in the Utilities sector, down 4.6%, and Technology, which was down 4.1%.
- It was an important week for earnings with two major company reports. Tech giant, Apple reported disappointing second quarter sales despite better-than-expected earnings. Amazon reported better than expected results and issued optimistic guidance for the rest of the year.
- Other positive earnings reports were seen from Amgen, Draftkings, and CVS Corp. Yum Brands and Uber were among companies that failed to meet analyst expectations.

| Asset Class | Name | 1W | YTD | 3Y(Ann.) | 5Y(Ann.) | |
|-------------|-------------------------|----------------|--------|----------|----------|--------|
| All-Cap | S&P 1500 | -2.17% | 17.19% | 12.27% | 11.05% | |
| | Large-Cap | S&P 500 | -2.26% | 17.75% | 12.15% | 11.46% |
| | | S&P 500 Growth | -2.68% | 21.40% | 8.65% | 11.94% |
| Mid-Cap | S&P 500 Value | -1.75% | 13.78% | 15.42% | 9.98% | |
| | S&P Midcap 400 | -1.28% | 11.40% | 13.46% | 7.74% | |
| | S&P Midcap 400 Growth | -1.25% | 12.87% | 8.82% | 7.10% | |
| Small-Cap | S&P Midcap 400 Value | -1.31% | 9.86% | 18.30% | 7.97% | |
| | S&P Smallcap 600 | -0.88% | 9.91% | 13.50% | 5.22% | |
| | S&P Smallcap 600 Growth | -0.86% | 10.38% | 9.70% | 4.86% | |
| Int'l. | S&P Smallcap 600 Value | -0.91% | 9.44% | 17.32% | 5.32% | |
| | MSCI ACWI ex-USA | -2.38% | 10.90% | 5.15% | 3.53% | |
| | MSCI EM | -2.37% | 8.39% | -0.21% | 1.41% | |

Source: Bloomberg as of August 4, 2023

Alternative Markets Overview

- Oil continued to climb higher this week, up by 2.5%, following news of continued production cuts. This marked the sixth week of gains.
- Cryptocurrency exchange Coinbase was among those reporting earnings this week. While the report was better than expected, the company still reported losses and a decline in revenue. Coinbase also noted a reduction in the number of users and trading volume for the quarter.

| Name | 1W | YTD | 3Y (Ann.) | 5Y (Ann.) |
|------------------------|--------|--------|-----------|-----------|
| S&P GSCI | 0.23% | 2.16% | 26.45% | 5.70% |
| Gold | -0.60% | 7.10% | -1.75% | 9.82% |
| FTSE All Equity NAREIT | -2.16% | 2.16% | 4.64% | 4.22% |
| Bitcoin | -0.95% | 74.78% | 35.48% | 31.46% |
| Ethereum | -2.29% | 52.57% | 66.08% | 34.59% |

Source: Bloomberg as of August 4, 2023



Upcoming Week

- The markets will continue to assess inflationary pressures this week focusing on the Consumer Price Index (CPI) on Thursday. The current forecast is looking for an unchanged reading from June's reading of 0.2%
- Earnings reports to watch this week include Walt Disney, UPS, Eli Lilly, and Under Armour.

Glossary and Disclosures

This commentary is brought to you courtesy of MML Investors Services, a subsidiary of Massachusetts Mutual Life Insurance Company. Securities, investment advisory, and wealth management solutions offered by MML Investors Services, LLC member SIPC, a registered broker-dealer, and a registered investment adviser. Strategic Financial Partners is not a subsidiary or affiliate of MML Investors Services, LLC or its affiliated companies.

Past performance is not indicative of future results. Indexes are unmanaged. You cannot invest directly in an index.

This material does not constitute a recommendation to engage in or refrain from a particular course of action. The information within has not been tailored for any individual. The opinions expressed herein are those of the author as of the date of writing and are subject to change. Also, this material may contain forward looking statements that are subject to certain risks and uncertainties. Actual results, performance, or achievements may differ materially from those expressed or implied.

Neither MML Investors Services, LLC, nor its representatives, can assist with digital asset purchases or sales or otherwise provide investment advice concerning digital assets, such as cryptocurrencies. Any information provided is educational in nature and should not be relied upon to make digital asset related decisions.

S&P 1500 Index combines three leading indices, the S&P 500, the S&P Midcap 400, and the S&P Smallcap 600, to cover approximately 90% of U.S. equity market capitalization.

S&P 500 Index includes approximately 500 leading companies that covers approximately 80% of available U.S. equity market capitalization.

S&P 500 Growth Index is a stock index that represents the fastest-growing companies in the S&P 500 based on three factors: sales growth, ratio of earnings change to price, and momentum.

S&P 500 Value Index is a stock index that represents the companies in the S&P 500 with the most attractive valuations based on three factors: book value, earnings, and sales to price.

S&P Midcap 400 Index is distinct from the large-cap S&P 500 and designed to measure the performance of 400 U.S. mid-sized companies, which have differing liquidity and growth potential than large and small cap companies.

S&P Midcap 400 Growth Index is a stock index that represents the fastest-growing companies in the S&P Midcap 400 based on three factors: sales growth, ratio of earnings change to price, and momentum.

S&P Midcap 400 Value Index is a stock index that represents the companies in the S&P Midcap 400 with the most attractive valuations based on three factors: book value, earnings, and sales to price.

S&P Smallcap 600 Index measures the performance of 600 small-sized U.S. companies to reflect the small-cap segment of the U.S. equity market, which is typically known for less liquidity than large cap stocks.

S&P Smallcap 600 Growth Index is a stock index that represents the fastest-growing companies in the S&P Smallcap 600 based on three factors: sales growth, ratio of earnings change to price, and momentum.

S&P Smallcap 600 Value Index is a stock index that represents the companies in the S&P Smallcap 600 with the most attractive valuations based on three factors: book value, earnings, and sales to price.

MSCI ACWI ex-US Index captures large and mid-cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 24 Emerging Markets (EM) countries.

MSCI Emerging Markets Index captures large and mid-cap representation across 24 Emerging Markets (EM) countries.

S&P GSCI is broad-based and production weighted to represent the global commodity market beta. The index is designed to be investable by including the most liquid commodity futures.

S&P GSCI Gold a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark tracking the COMEX gold future.

FTSE All Equity NAREIT Index contains all tax-qualified REITs with more than 50 percent of total assets in qualifying real estate assets other than mortgages secured by real property that also meet minimum size and liquidity criteria.

Bitcoin USD Spot Exchange Rate measures the last price of 1 Bitcoin in USD.

Bloomberg Galaxy Bitcoin Index is designed to measure the performance of a single bitcoin traded in USD.

Ethereum USD Spot Exchange Rate measure the last price of 1 Ethereum in USD.

Bloomberg Galaxy Ethereum Index is designed to measure the performance of a single Ethereum traded in USD.

Bloomberg Barclays 1-3 Year Govt/Credit Index is the 1-3 Yr. component of the U.S. Government/Credit index, which includes securities in the Government, which includes treasuries and agencies debt securities, and Credit Indices, which includes publicly issued U.S. corporate and foreign debt that meet specified maturity, liquidity, and quality requirements.

Bloomberg Intermediate US Government/Credit Bond Index is a broad-based flagship benchmark that measures the non-securitized component of the US Aggregate Index with less than 10 years to maturity; this includes investment grade, US dollar-denominated, fixed-rate treasuries, government-related and corporate securities

Bloomberg Barclays Global Aggregate Bond Index provides a broad-based measure of the global investment-grade fixed income markets, with three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices.

Bloomberg Barclays U.S. Aggregate Bond Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

Bloomberg Barclays U.S. Treasury Aggregate Bond Index is the U.S. Treasury component of the U.S. Government index and represents public obligations of the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg US TIPS Index consists of Inflation-Protection securities issued by the U.S. Treasury.

Bloomberg Barclays US Corporate Bond Index is the Corporate component of the U.S. Credit index and represents publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements.

Bloomberg Barclays U.S. Corporate High Yield Index covers the universe of fixed rate, non-investment grade debt.

Bloomberg Barclays Emerging Markets Bond Index is broad-based with country eligibility and classification as an Emerging Market being rules-based and reviewed on an annual basis using World Bank income group and International Monetary Fund (IMF) country classifications.

Bloomberg Barclays U.S. Municipal Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market.

Bloomberg Barclays US High Yield Municipal Index is an unmanaged index of noninvestment-grade municipal debt securities, which provides a representation of the performance of US high-yield tax-exempt bonds.

Federal Funds Rate is the interest rate at which depository institutions trade federal funds (balances held at Federal Reserve Banks) with each other overnight.

U.S. Treasury Securities are issued by the federal government and are considered to be among the safest investments you can make, because all Treasury securities are backed by the "full faith and credit" of the U.S. government.

©2022 Massachusetts Mutual Life Insurance Company, Springfield, MA 01111-0001 All Rights Reserved. www.massmutual.com

MM202608-306443