



Capital Markets Snapshot

LWS Financial

Week ending April 28, 2023

The equity markets closed out April on a positive note, but uncertainty remains as to the outlook for the economy. In addition to a large slate of earnings reports, there were several data releases that continue to paint a mixed picture. Thursday's release of Q1 GDP reflected a slowing environment coming in lighter than expected with a reading of 1.1% which was down from the previous quarters level of 2.6%. Other key releases included an increase in both durable goods orders and personal consumption expenditures, but a buildup in retail inventories, and a decline in the Conference Board's consumer confidence index.

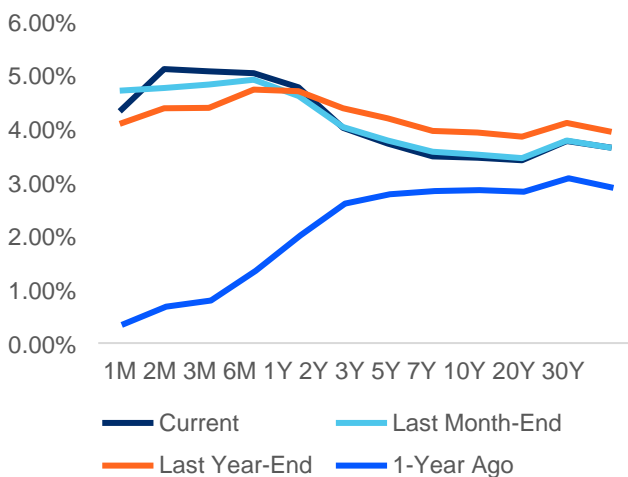
Fixed Income Markets Overview

- U.S. bond yields were mostly down slightly for the week, except the 1 Month T Bill saw a sharp jump of 99bps . This move was in tandem with several other countries after Japan announced they were not raising rates. The Bank of Japan stated they are maintaining their policy of monetary easing to support wage growth.
- The Federal Reserve Open Market Committee Meeting (FOMC) will be held this week. Current market expectations are looking for the Fed to increase rates by another 25 basis points.
- The Fed's key inflation metric, the Personal Consumer Expenditures (PCE) Price Index was released on Friday and did slow as expected to 4.2%, but still remains well above the Fed's key 2.0% target.

Asset Class	Name	1W	YTD	3Y(Ann.)	5Y(Ann.)
Short	1-3 Year Govt/Credit	0.29%	1.86%	-0.56%	1.30%
	Core Plus				
	Intermediate Govt/Credit	0.63%	2.96%	-1.52%	1.64%
	International Aggregate	0.74%	3.46%	-3.77%	-0.94%
	US Aggregate	0.83%	3.59%	-3.14%	1.20%
	US Treasury	0.88%	3.56%	-4.25%	1.04%
	US TIPS	0.48%	3.45%	0.70%	3.03%
	US Corporate	0.87%	4.29%	-1.99%	1.99%
	US Corporate High Yield	0.49%	4.60%	4.85%	3.28%
Other	Emerging Markets Aggregate	0.72%	2.55%	-0.46%	0.60%
Muni	US Municipals	0.11%	2.54%	0.68%	2.08%
	US Municipals High Yield	0.67%	3.33%	4.11%	3.13%

Source: Bloomberg as of April 28, 2023

U.S. Treasury Yield Curve



Source: Bloomberg and U.S Treasury as of April 28, 2023

Interest Rates (%)

Date	4/28/2023	3/31/2023	12/30/2022	4/28/2022
Federal Funds Rate	4.35%	4.74%	4.12%	0.37%
3 Month Treasury	5.10%	4.85%	4.42%	0.82%
6 Month Treasury	5.06%	4.94%	4.76%	1.38%
2 Year Treasury	4.04%	4.06%	4.41%	2.63%
5 Year Treasury	3.51%	3.60%	3.99%	2.86%
10 Year Treasury	3.44%	3.48%	3.88%	2.85%
30 Year Treasury	3.67%	3.67%	3.97%	2.92%
US Aggregate	4.35%	4.40%	4.68%	3.40%
US Corporate	5.10%	5.17%	5.42%	4.22%
US Corporate High Yield	8.48%	8.52%	8.96%	6.86%
US Municipal	3.39%	3.25%	3.55%	3.16%
US Municipal High Yield	5.69%	5.68%	5.83%	4.86%

Spreads Over 10-Year US Treasuries

Date	4/28/2023	3/31/2023	12/30/2022	4/28/2022
30 Year Treasury	0.23%	0.19%	0.09%	0.07%
US Aggregate	0.91%	0.92%	0.80%	0.55%
US Corporate	1.66%	1.69%	1.54%	1.37%
US Corporate High Yield	5.04%	5.04%	5.08%	4.01%
US Municipal	-0.05%	-0.23%	-0.33%	0.31%
US Municipal High Yield	2.25%	2.20%	1.95%	2.01%

Source: Bloomberg and U.S. Treasury as of April 28, 2023

Equity Markets Overview

- A market rally on Thursday helped the three major equity indices close the week in positive territory and marked the second straight month of gains. Sectors were mixed again with gains in Communication Services (+3.8%) and Technology (+2.4%) but declines in Utilities (-0.9%), Financials (-0.1%), and Healthcare as well as Industrials (both down -0.6%).
- In earnings news, Exxon and Chevron both beat analyst estimates, while Intel reported the largest quarterly loss in the company's history. Other winners of the week included Sony and Comcast which exceeded expectations, but pharmaceutical company Eli Lilly missed their target earnings. Amazon beat their sales target for the quarter but gave an uncertain outlook on their cloud services. Facebook parent Meta also reported positive results, noting their first uptick in sales in almost one year.
- First Republic Bank reported deposit outflows of almost \$100 billion in March and announced a major restructuring of its balance sheet. The bank's shares were down by more than 50% during the week and by Friday it was announced that the FDIC was planning on taking the bank into receivership.

Asset Class	Name	1W	YTD	3Y(Ann.)	5Y(Ann.)
All-Cap	S&P 1500	0.77%	8.57%	14.25%	10.86%
Large-Cap	S&P 500	0.89%	9.17%	14.17%	11.27%
	S&P 500 Growth	0.88%	11.20%	12.19%	12.00%
	S&P 500 Value	0.90%	6.97%	15.03%	9.52%
Mid-Cap	S&P Midcap 400	-0.31%	2.99%	15.32%	7.33%
	S&P Midcap 400 Growth	-0.59%	4.50%	11.78%	6.69%
	S&P Midcap 400 Value	-0.01%	1.42%	18.65%	7.57%
Small-Cap	S&P Smallcap 600	-1.00%	-0.28%	14.31%	5.29%
	S&P Smallcap 600 Growth	-1.44%	-1.06%	10.91%	5.11%
	S&P Smallcap 600 Value	-0.56%	0.56%	17.56%	5.24%
Int'l.	MSCI ACWI ex-USA	-0.03%	8.72%	9.63%	2.55%
	MSCI EM	-0.27%	2.78%	4.53%	-0.90%

Source: Bloomberg as of April 28, 2023

Alternative Markets Overview

- The price of oil continued to slide again this week. For the year to date, the price per barrel is down 4.5%.
- Several cryptocurrencies were up this week including Bitcoin, Ethereum, and Solana.
- Gold and Silver futures also closed slightly higher for the week.

Name	1W	YTD	3Y (Ann.)	5Y (Ann.)
S&P GSCI	-1.46%	-5.66%	36.67%	3.86%
Gold	0.45%	9.31%	5.19%	8.45%
FTSE All Equity NAREIT	1.08%	2.05%	6.81%	6.14%
Bitcoin	7.65%	76.91%	49.76%	26.76%
Ethereum	2.93%	57.94%	106.16%	23.90%

Source: Bloomberg as of April 28, 2023



Upcoming Week

- Look for another large batch of earnings reports this week including Advanced Micro Devices, Pfizer, Ford Motor, Marriott, and tech giant Apple.
- In addition to the FOMC and earnings reports, there is a full slate of economic releases including U.S. Construction Spending, Factory Orders, plus both the ISM Manufacturing and Non-Manufacturing Index.
- The market will also be paying close attention to Friday's release of the April jobs report. Current expectations are looking for an increase of 180,000 jobs.

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. [Add if DBA is included: [DBA] 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

MM202605-305343