

# Quarterly Market Commentary

## July 2022

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# Executive Summary

## Market Review

2022 has been a very challenging year in both equity and fixed income markets. The domestic equity markets reflected by the S&P 500 Index and NASDAQ are down 20% and 26% respectively; making this the worst first half of any year since 1970. Furthermore, domestic fixed income as reflected by the Bloomberg US Aggregate Bond Index declined by 10%, making this the worst first half ever experienced. This selloff was experienced globally, with international markets as defined by the MSCI All Country World Index Ex-US index seeing declines of 18%.

To put some perspective around how broad the market decline has been, over 50% of the stocks in the NASDAQ have declined by 50% or more and 10 of the 11 sectors within the S&P 500 have negative YTD returns. The only S&P 500 sector with a positive year-to-date return is Energy, resulting from the spike in commodity prices. Long dated United States Treasury Bonds have declined by more than 20%, something rarely seen. Despite vibrant economic activity, municipal bonds have also declined in excess of 10%.

As a result of the correlations experienced between stocks and bonds during the 2022 market decline, diversification did not result in the historical mitigation of portfolio risk; something rarely experienced.

The global pandemic, the War in Ukraine, the China Covid lockdowns and continued supply chain disruptions are the primary contributors to the economic backdrop that has resulted in elevated levels of inflation. This has shifted global economic policy and has put the Federal Reserve on a path to swiftly raising interest rates. The subsequent consequence of this has been a rerating of asset prices across equity and fixed income markets.

Despite the sweeping decline across markets, the fundamentals of the US economy remain strong. Nominal US GDP is expanding at an annualized rate between 7-9%. US unemployment is near historic lows at approximately 3.6%, with 11 million unfilled jobs currently available. Consumer and corporate balance sheets remain strong (corporate profits continue to expand in 2022), and housing continues to be resilient; median home prices recently reached the highest level in history.

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## Executive Summary

### Market Outlook

Our base case view is a slowing of nominal GDP growth but not a contraction. Therefore, we do not anticipate a near-term recession. Historically, the backdrop prior to a recession has seen a dramatic weakening in employment, declines in consumer spending and demand, a slowing of corporate activity and an inverted yield curve (expressed by the yield on the 3-month Treasury being higher than the yield on the 10-year Treasury). Currently, none of the aforementioned points are present.

We anticipate that inflation will begin to plateau, and more favorable trends will start to take hold, setting up conditions for a more sustainable economic backdrop. We are likely to see a decline from current levels of inflation in the second half of 2022, as expressed by CPI. As of early July, several data points including oil and used cars have shown price easing.

Modest declines in corporate profitability have been considered and we see opportunity across several asset classes based on price decline, valuations and forward expectations. Within equities we favor a continued tilt to domestic versus international and we are selectively adding to quality and growth. Small caps are currently priced at one of the deepest discounts ever seen compared to large caps. The forward P/E ratio of the S&P 500 currently at 16 is consistent with its historical long-term average. With the current economic backdrop including strong nominal GDP, we do not think that a significant P/E multiple reduction is warranted.

The Fed Funds Rate is currently at 1.75%. The Federal Reserve has targeted its terminal rate to be between 3.25% - 3.5%, which has already been priced into the market. We think opportunities are substantial across investment grade corporates, convertibles, municipals and high yield bonds. This is the first time in over a decade that intermediate investment grade fixed income is yielding over 4%.

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# US Economy

- Inflation surged to 40-year highs in 2022, which has prompted the Federal Reserve to hike short-term interest rates. These actions are designed to slow the economy, dampen demand and restore inflation to more recent historical levels.
- Despite higher wages, substantially higher prices at the grocery store and the gas pump have led consumers to feel more pessimistic. The University of Michigan Consumer Sentiment Index recently hit its lowest mark since the index began in 1978. Historically, negative consumer sentiment has been a bullish indicator for equities.
- The US labor market remains strong, with an unemployment rate of just 3.6%. Nominal GDP is expanding at an annualized rate of 7-9%.
- The housing market continues to be stable, despite high mortgage rates and prices still near all time highs.

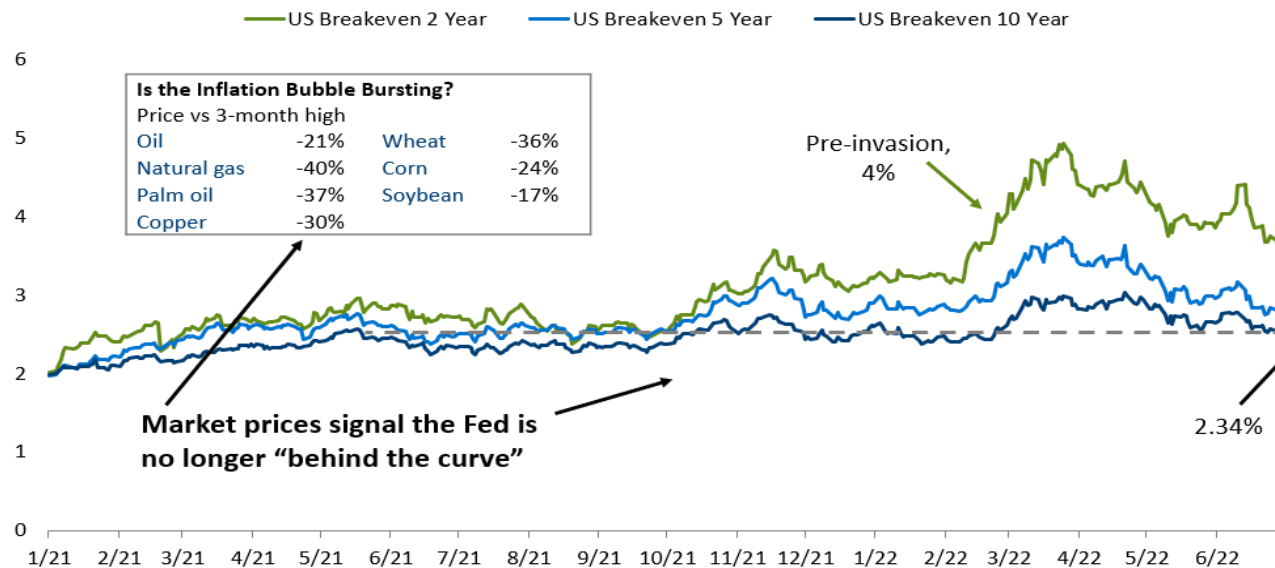
## University of Michigan Consumer Sentiment



Note: Seasonally adjusted; 1Q1966=100

Source: WSJ, Univ of Michigan

## Breakeven Inflation Rates: January 2021 – June 2022



Source: Macrobond. Past performance is no guarantee of future results.

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## Global Economy

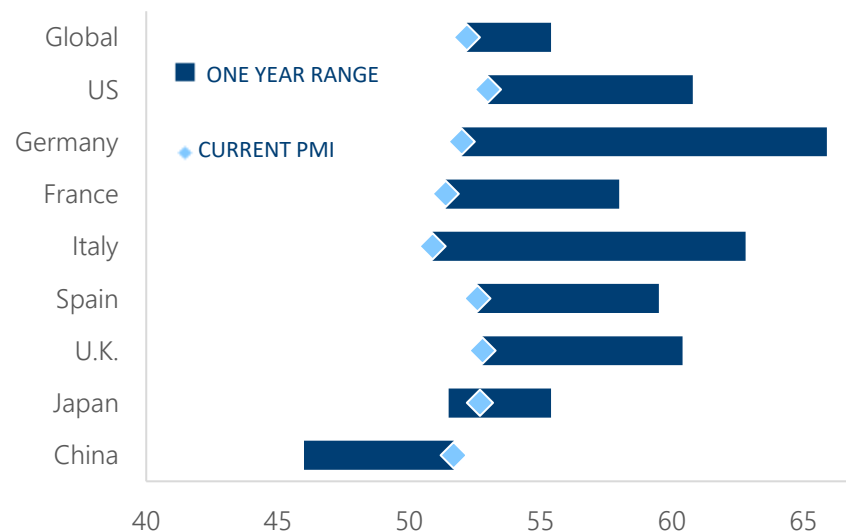
- While a more reflationary backdrop materialized, the impact of excessive stimulus and monetary policy coupled with supply chain disruptions fueled inflation globally. This was further exacerbated by the war in Ukraine and China's Zero Covid policy.
- Governments and Central Banks globally are responding with tighter monetary conditions that will likely weigh on global growth.
- Returns have been more factor-driven over the past year than geographic. With inflation expectations and interest rates moving higher globally, value equities outperformed growth. This has been to the benefit of many overseas markets, in local currency terms.
- 2022 Global GDP in both advanced and emerging economies is expected to decline and normalize, particularly compared to the extraordinarily elevated 2021 levels following the 2020 Covid lockdowns around the world.

### OECD Global GDP Projections

	2021	2022E	2023E
<b>World</b>	<b>5.8%</b>	<b>3.0%</b>	<b>2.8%</b>
<b>Advanced Economies</b>			
United States	5.7%	2.5%	1.2%
Euro area	5.3%	2.6%	1.6%
Japan	1.7%	1.7%	1.8%
<b>Emerging Economies</b>			
China	8.1%	4.4%	4.9%
India	8.7%	6.9%	6.2%
Brazil	5.0%	0.6%	1.2%

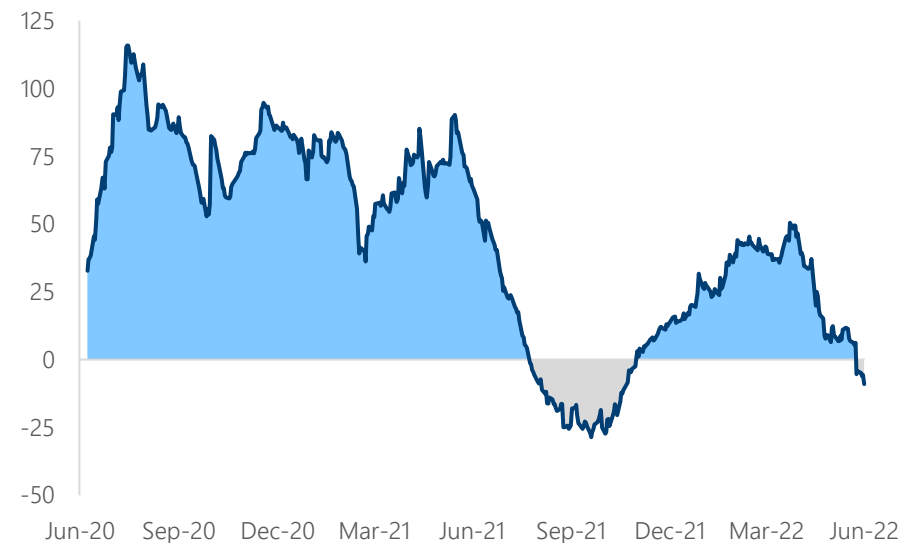
Source: Organisation for Economic Cooperation and Development. Data as of 6/30/22.

### Manufacturing PMI by Country



Source: Bloomberg, Institute of Supply Management, Caixin, IHS Markit. Data as of 6/30/22.

### Global Citi Economic Surprise



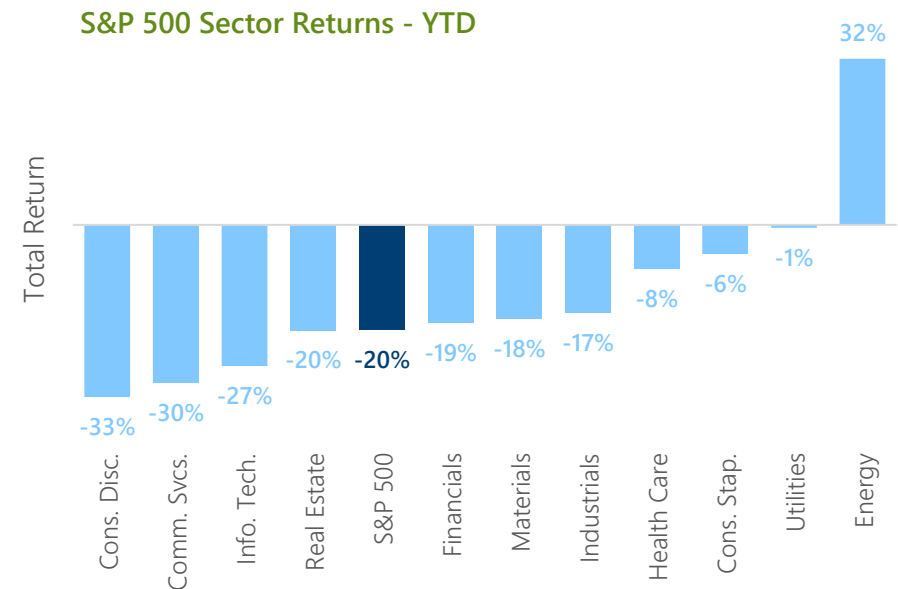
Source: Citigroup, Bloomberg. Data as of 6/30/22.

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## US Equities

- All sectors of the S&P 500 have declined other than energy, which benefited from commodity price increases.
- At the beginning of the year, markets were trading at higher P/E levels. These higher P/E ratios were supported at the time by a lower interest rate environment. The recent selloff has brought the P/E multiple in line with its historical average.
- Equity markets have been repriced for slower growth. The trajectory of corporate profits will now determine if the bear market is complete. Conviction in a “soft landing” rather than recession will drive style and industry performance.
- Healthy nominal GDP (7-9% in 2022) implies corporate profitability can be sustained into 2023. As economic growth shifts from goods to services, operating leverage will become more muted.
- With consensus earning estimates remaining largely intact, we believe most of the downside has been priced into current levels. We expect volatility to remain elevated.
- The true enemy of equities is not inflation but deflation in output and profits. We do not currently see deflation as a material risk.
- Valuation is more correlated to size than style after significant underperformance of growth in the past year (specifically in small and mid cap benchmarks).
- Small and mid-cap stocks are likely pricing in a 20-30% decline in EPS relative to expectations, creating the potential for attractive buying opportunities.

S&P 500 Sector Returns - YTD



Source: Bloomberg. Past performance is no guarantee of future results.

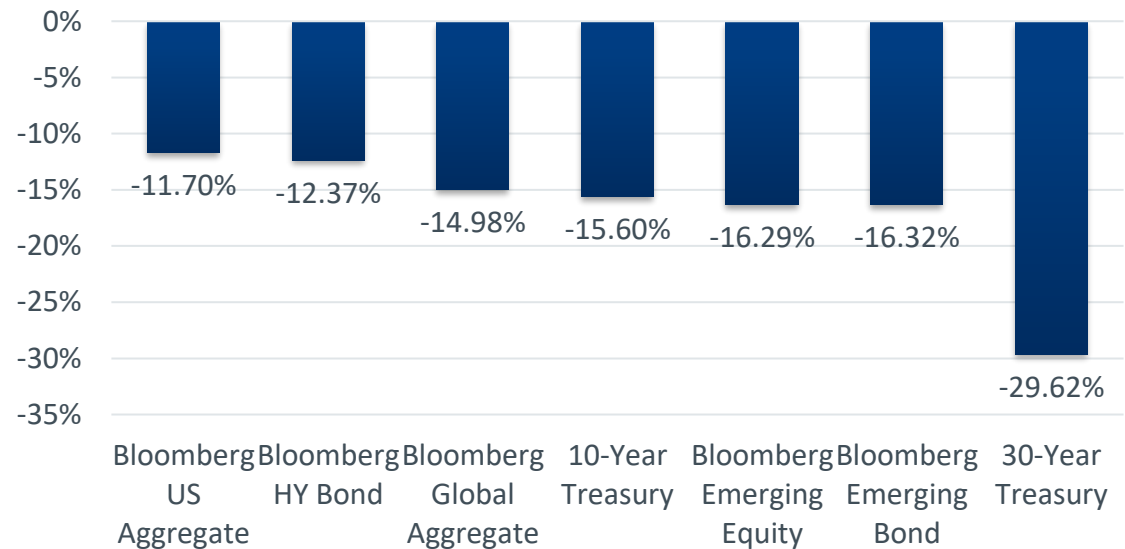


Source: Bloomberg. Past performance is no guarantee of future results.

## Fixed Income and Alternatives

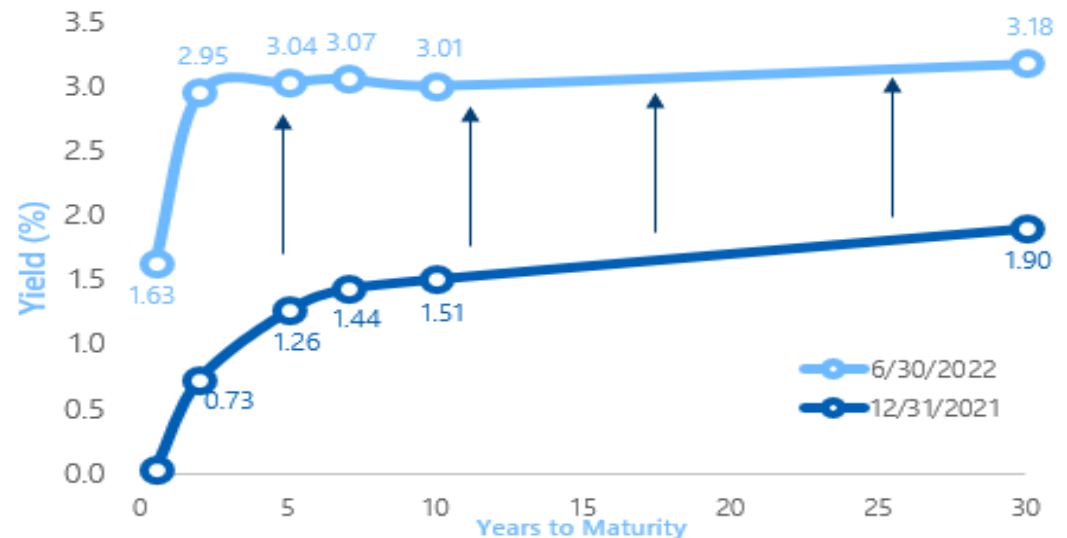
- There has also been a historic repricing of fixed income during the first half of 2022 as a result of the Federal Reserve raising interest rates and targeting a higher terminal rate. This has been a painful process for returns, but the saving grace is that virtually all traditional fixed income asset classes are significantly more attractive.
- The yield curve has experienced an upward shift as a result of monetary policy. The 10-year Treasury has increased from 1.51% to 3.01% in just 6 months.
- The Fed will almost certainly raise interest rates again by at least 75bps in late July, then likely another 50bps in September. After that, the Fed's actions will be exclusively dependent on inflation data.
- For some investors, a flat yield curve offers compelling short-term yield with limited duration exposure.
- For other investors, a flat yield curve offers potential portfolio risk mitigation and yield through the ownership of intermediate and longer dated maturities.
- Investment grade corporates, convertibles, municipals and high-yield bonds present attractive risk reward characteristics.
- We expect our alternative market neutral strategy to continue to provide downside protection while adding strong diversification benefits to a portfolio.

For 1H 2022, all major fixed income benchmarks generated negative returns



Source: Bloomberg. Data as of 6/30/22. Past performance is no guarantee of future results.

### U.S. Treasury Yield Curve



Source: Bloomberg. Data as of 6/30/22.

# Global Market Returns

As of June 30, 2022

	Q2	Q1	2022	Annualized	
				3Yr	5Yr
<b>U.S. Equity</b>					
U.S. Large Cap	-16.1%	-4.6%	-20.0%	10.6%	11.3%
U.S. Mid Cap	-16.9%	-5.7%	-21.6%	6.6%	7.9%
U.S. Small Cap	-17.2%	-7.5%	-23.4%	4.2%	5.1%
U.S. Growth	-20.9%	-9.0%	-28.1%	12.6%	14.3%
U.S. Value	-12.2%	-0.7%	-12.9%	6.8%	7.1%
<b>U.S. Sectors</b>			<b>2022</b>	<b>3Yr</b>	<b>5Yr</b>
Technology	-20.2%	-8.4%	-26.9%	18.7%	20.2%
Health Care	-5.9%	-2.6%	-8.3%	13.6%	12.1%
Financials	-17.5%	-1.5%	-18.7%	6.6%	7.2%
Communication Svcs	-20.7%	-11.9%	-30.2%	5.3%	6.1%
Consumer Discretion	-26.2%	-9.0%	-32.8%	5.4%	9.7%
Industrials	-14.8%	-2.4%	-16.8%	6.0%	6.7%
Consumer Staples	-4.6%	-1.0%	-5.6%	10.9%	8.8%
Energy	-5.3%	39.0%	31.6%	10.0%	6.9%
Utilities	-5.1%	4.8%	-0.6%	9.0%	9.8%
Real Estate	-14.7%	-6.3%	-20.1%	7.0%	8.5%
Materials	-15.9%	-2.4%	-17.9%	10.2%	8.7%
<b>Non-U.S. (in USD)</b>			<b>2022</b>	<b>3Yr</b>	<b>5Yr</b>
Int'l Developed	-14.3%	-5.7%	-19.2%	1.6%	2.8%
Emerging Markets	-11.4%	-7.0%	-17.6%	0.9%	2.5%
Europe	-13.6%	-7.7%	-20.3%	2.0%	2.8%
Japan	-14.4%	-6.5%	-20.0%	1.5%	2.1%
China	3.5%	-14.2%	-11.2%	-0.5%	2.3%
Latin America	-21.7%	27.3%	-0.3%	-6.0%	-0.2%
<b>Convertibles</b>			<b>2022</b>	<b>3Yr</b>	<b>5Yr</b>
U.S. Convertibles	-14.9%	-5.9%	-19.9%	10.4%	10.0%
Global Convertibles	-14.2%	-6.6%	-19.9%	6.2%	6.3%

EQUITY

	Q2	Q1	2022	Annualized	
				3Yr	5Yr
<b>U.S. Fixed Income</b>					
U.S. Aggregate	-4.7%	-5.9%	-10.3%	-0.9%	0.9%
U.S. Treasury	-3.8%	-5.6%	-9.1%	-0.9%	0.7%
U.S. Corporate	-7.3%	-7.7%	-14.4%	-1.0%	1.3%
U.S. Municipal	-2.9%	-6.2%	-9.0%	-0.2%	1.5%
<b>By Credit Quality</b>			<b>2022</b>	<b>3Yr</b>	<b>5Yr</b>
U.S. Aggregate Aaa	-3.8%	-5.3%	-8.9%	-1.0%	0.7%
U.S. Aggregate Aa	-5.6%	-7.0%	-12.3%	-1.2%	0.9%
U.S. Aggregate A	-6.5%	-7.3%	-13.3%	-1.0%	1.1%
U.S. Aggregate Baa	-7.9%	-7.9%	-15.2%	-1.0%	1.5%
U.S. High Yield	-9.8%	-4.8%	-14.2%	0.2%	2.1%
<b>By Maturity</b>			<b>2022</b>	<b>3Yr</b>	<b>5Yr</b>
U.S. Agg 1-3 Year	-0.6%	-2.5%	-3.1%	0.2%	1.0%
U.S. Agg 3-5 Year	-1.9%	-4.5%	-6.3%	-0.3%	1.0%
U.S. Agg 5-7 Year	-3.3%	-5.2%	-8.3%	-0.5%	1.1%
U.S. Agg 7-10 Year	-5.4%	-6.6%	-11.7%	-0.8%	1.1%
U.S. Agg 10+ Year	-12.2%	-11.0%	-21.8%	-2.3%	1.1%

FIXED INCOME

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# Global Market Fundamentals

As of June 30, 2022

	P/E Ratio			Div Yield		
	Jun	Dec	Chg	Jun	Dec	Chg
	<b>U.S. Equity</b>					
U.S. Large Cap	15.8x	21.4x	-5.6x	1.7%	1.3%	0.4%
U.S. Mid Cap	14.6x	20.6x	-6.0x	1.8%	1.2%	0.5%
U.S. Small Cap	17.9x	25.3x	-7.4x	1.5%	1.3%	0.2%
U.S. Growth	20.6x	30.2x	-9.6x	1.0%	0.7%	0.4%
U.S. Value	12.9x	16.5x	-3.5x	2.3%	1.9%	0.4%
	P/E Ratio			Div Yield		
U.S. Sectors	Jun	Dec	Chg	Jun	Dec	Chg
Technology	19.0x	28.2x	-9.2x	1.1%	0.8%	0.3%
Financials	11.4x	14.8x	-3.4x	2.3%	1.7%	0.6%
Health Care	15.7x	17.3x	-1.6x	1.7%	1.4%	0.3%
Consumer Discretion	20.3x	30.0x	-9.7x	1.0%	0.6%	0.4%
Communication Svcs	13.7x	19.7x	-6.1x	1.0%	0.9%	0.2%
Consumer Staples	20.1x	21.9x	-1.8x	2.6%	2.4%	0.3%
Industrials	15.8x	20.8x	-5.0x	1.9%	1.4%	0.5%
Energy	8.3x	10.8x	-2.5x	3.6%	4.1%	-0.5%
Materials	12.5x	17.0x	-4.5x	2.2%	1.7%	0.6%
Utilities	19.6x	20.8x	-1.1x	3.1%	2.9%	0.1%
Real Estate	33.9x	51.7x	-17.8x	3.2%	2.2%	1.0%
	P/E Ratio			Div Yield		
Non-U.S. (in USD)	Jun	Dec	Chg	Jun	Dec	Chg
Int'l Developed	11.7x	15.1x	-3.4x	3.6%	2.8%	0.8%
Emerging Markets	10.9x	12.4x	-1.5x	3.3%	2.9%	0.5%
Europe	11.5x	15.2x	-3.8x	3.7%	2.9%	0.8%
Japan	12.1x	14.0x	-1.9x	2.6%	2.2%	0.4%
Asia ex-Japan	12.0x	13.9x	-1.9x	2.8%	2.3%	0.5%
China	11.9x	12.2x	-0.3x	2.2%	2.0%	0.3%
Latin America	6.5x	8.8x	-2.2x	9.2%	6.4%	2.9%

	Yield to Maturity			Spread		
	Jun	Dec	Chg	Jun	Dec	Chg
	<b>U.S. Fixed Income</b>					
U.S. Aggregate	3.7%	1.8%	2.0%	0.6%	0.4%	0.2%
U.S. Treasury	3.1%	1.2%	1.9%	0.0%	0.0%	-
U.S. Corporate	4.7%	2.3%	2.4%	1.6%	0.9%	0.6%
U.S. Municipal	3.2%	1.1%	2.1%	na	na	-
	Yield to Maturity			Spread		
By Credit Quality	Jun	Dec	Chg	Jun	Dec	Chg
U.S. Aggregate Aaa	3.4%	1.5%	1.8%	0.2%	0.1%	0.1%
U.S. Aggregate Aa	3.9%	1.9%	2.0%	0.8%	0.5%	0.3%
U.S. Aggregate A	4.4%	2.1%	2.3%	1.3%	0.7%	0.5%
U.S. Aggregate Baa	5.1%	2.6%	2.5%	1.9%	1.1%	0.8%
U.S. High Yield	8.9%	4.2%	4.7%	5.7%	2.8%	2.9%
	Yield to Maturity			Spread		
By Maturity	Jun	Dec	Chg	Jun	Dec	Chg
U.S. Agg 1-3 Year	3.3%	0.8%	2.4%	0.2%	0.1%	0.1%
U.S. Agg 3-5 Year	3.5%	1.5%	2.0%	0.4%	0.2%	0.2%
U.S. Agg 5-7 Year	3.7%	1.9%	1.8%	0.5%	0.4%	0.1%
U.S. Agg 7-10 Year	3.9%	2.0%	1.9%	0.6%	0.4%	0.3%
U.S. Agg 10+ Year	4.3%	2.6%	1.7%	1.0%	0.7%	0.3%

FIXED INCOME

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**DEFINITIONS:** **Mkt Cap:** Total market value of all of a company's outstanding shares. **P/E Ratio :** Current stock's price over its predicted earnings per share. **Div Yield:** Current dividend as a percentage of the current share price. **Duration:** Measure of how sensitive a bond's value may be to interest rate changes. **Yield to Maturity:** Total return anticipated on a bond if the bond is held until it matures, expressed as an annual rate. **Spread:** Spread of a fixed-income security rate and the risk-free rate of return, which is adjusted to take into account an embedded option.

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## Disclosures

### Global Market Returns

U.S. Large Cap : S&P 500 – Index of the 500 largest corporations by market capitalization listed on the NYSE or NASDAQ. U.S. Small Cap: Russell 2000 – Index of approximately 2000 small-cap companies within the Russell 3000 index, which is made up of stocks of the largest 3000 U.S. companies. U.S. Growth: Russell 1000 Growth – A composite of large and mid-cap companies within the Russell 1000 Index that have higher price-to-book ratios and higher expected earnings growth rates. U.S. Value : Russell 1000 Value – A composite of large and mid-cap companies within the Russell 1000 Index that have lower price-to-book ratios and lower expected long-term earnings growth rates. Technology : S&P 500 Information Technology – A composite of Information Technology sector companies within the S&P 500 Index. Financials : S&P 500 Financials – A composite of Financial sector companies within the S&P 500 Index. Health Care : S&P 500 Health Care – A composite of Health Care sector companies within the S&P 500 Index. Consumer Discretionary : S&P 500 Consumer Discretionary – A composite of Consumer Discretionary sector companies within the S&P 500 Index. Consumer Staples : S&P 500 Consumer Staples – A composite of Consumer Staples-sector companies within the S&P 500 Index. Industrials : S&P 500 Industrials – A composite of Industrials sector companies within the S&P 500 Index. Energy : S&P 500 Energy – A composite of Energy sector companies within the S&P 500 Index. Materials : S&P 500 Materials – A composite of Materials sector companies within the S&P 500 Index. Utilities : S&P 500 Utilities – A composite of Utilities sector companies within the S&P 500 Index. Real Estate : S&P 500 Real Estate – A composite of Real Estate sector companies within the S&P 500 Index. Telecom Services : S&P 500 Telecom Services – A composite of Telecom Services sector companies within the S&P 500 Index. Int'l Developed : MSCI EAFE – Index designed to measure the equity market performance of 23 developed markets outside of the U.S. and Canada. Emerging Markets : MSCI EM – Index designed to measure the equity market performance of 23 emerging economies selected by MSCI. Europe : MSCI Europe – Index of large and mid-cap companies across 15 developed countries within Europe. Japan : MSCI Japan – Index designed to measure the performance of large and mid-cap equities within the Japanese market. China : MSCI China – Index designed to capture large and mid-cap segments with H shares, B shares, red chips, P chips and ADRs of Chinese stocks. Latin America : MSCI Latin America – Index designed to measure the performance of large and mid-cap equities across 5 Emerging Market countries within Latin America. U.S. Convertibles : Bloomberg Barclays US Convertible Composite Total Return Unhedged USD – Index designed to represent the market of U.S. convertible securities, such as convertible bonds. Global Convertibles : Bloomberg Barclays Global Convertible Composite Total Return Unhedged USD – A global convertible index composed of companies representative of the market structure of countries in North America, Europe and the Asia/Pacific region. U.S. Aggregate : Bloomberg Barclays US Aggregate Bond Index – A broad-based index that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-through), ABS and CMBS (agency and non-agency). U.S. Treasury : Bloomberg Barclays US Treasury Index – Index that measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index. U.S. Corporate: Bloomberg Barclays US Corporate Bond Index – Index that measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers. U.S. Municipal: Bloomberg Barclays US Municipal Index – Index that 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 Aaa : Bloomberg Barclays US Aggregate Aaa Bond Index – Composite of all Aaa-rated bonds in the Bloomberg Barclays US Aggregate Bond Index. U.S. Aggregate Aa : Bloomberg Barclays US Aggregate Aa Bond Index – Composite of all Aa-rated bonds in the Bloomberg Barclays US Aggregate Bond Index. U.S. Aggregate A: Bloomberg Barclays US Aggregate A Bond Index – Composite of all A-rated bonds in the Bloomberg Barclays US Aggregate Bond Index. U.S. Aggregate Baa: Bloomberg Barclays US Aggregate Baa Bond Index – Composite of all Baa-rated bonds in the Bloomberg Barclays US Aggregate Bond Index. U.S. High Yield : Bloomberg Barclays US Corporate High Yield Bond Index – Index that 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 Barclays EM country definition, are excluded. U.S. Aggregate 1-3 Year : Bloomberg Barclays US Aggregate 1-3 Year Bond Index – Composite of all bonds in the Bloomberg Barclays US Aggregate Bond Index with maturities of 1-3 Years. U.S. Aggregate 3-5 Year : Bloomberg Barclays US Aggregate 3-5 Year Bond Index – Composite of all bonds in the Bloomberg Barclays US Aggregate Bond Index with maturities of 3-5 Years. U.S. Aggregate 5-7 Year : Bloomberg Barclays US Aggregate 5-7 Year Bond Index – Composite of all bonds in the Bloomberg Barclays US Aggregate Bond Index with maturities of 5-7 Years. U.S. Aggregate 7-10 Year : Bloomberg Barclays US Aggregate 7-10 Year Bond Index – Composite of all bonds in the Bloomberg Barclays US Aggregate Bond Index with maturities of 7-10 Years. U.S. Aggregate 10+ Year : Bloomberg Barclays US Aggregate 10+ Year Bond Index – Composite of all bonds in the Bloomberg Barclays US Aggregate Bond Index with maturities of 10+ Years. Managed Futures : Credit Suisse Managed Futures Liquid Index – Aims to gain exposure to trend-following strategies on futures. Merger Arbitrage : Credit Suisse Merger Arbitrage Liquid Index – Aims to gain broad exposure to the merger arbitrage strategy using a pre-defined quantitative methodology to invest in a liquid, diversified and broadly representative set of announced merger deals. Long/Short : Credit Suisse Long/Short Liquid Index – Reflects the return of a dynamic basket of liquid, investable market factors selected and weighted in accordance with an algorithm that aims to approximate the aggregate returns of the universe of long/short equity hedge fund managers. Commodities : Bloomberg Commodities Index – Reflects the returns on a fully collateralized investment in the BCOM. MLPs: Alerian MLP Index – Cap-weighted index of energy MLPs. Global REITs: S&P Global REIT USD Index – Benchmark of publicly traded equity REITs listed in both developed and emerging markets. Global Infrastructure : S&P Global Infrastructure Index – Index that provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. MSCI EAFE Forward Price-to-Earnings: A composite of the MSCI EAFE's underlying stocks' prices over their estimated earnings per share. MSCI EM Forward Price-to-Earnings: A composite of the MSCI EM's underlying stocks' prices over their estimated earnings per share.

## Definitions

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The index is calculated on a total return basis, which includes reinvestment of gross dividends before deduction of withholding taxes. The **MSCI ACWI Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets and emerging markets. The **MSCI ACWI ex US Growth Index** captures large and mid cap securities exhibiting overall growth style characteristics across 22 Developed Markets countries (excluding the US) and 26 Emerging Markets countries. The **Russell 1000® Index** measures the performance of the 1,000 largest companies in the Russell 3000 Index. The Russell 1000 Index is published and maintained by FTSE Russell. **Russell 1000® Value Index** measures the performance of those companies in the Russell 1000® Index with lower price-to-book ratios and lower forecasted growth values. **S&P 500 Index** is generally considered representative of the US stock market. **Bloomberg US Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency). **Bloomberg US Corporate High Yield Index** measures the US corporate market of non-investment grade, fixed-rate corporate bonds. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The **Bloomberg US Corporate High Yield 2% Issuer Capped Index** measures the performance of high yield corporate bonds with a maximum allocation of 2% to any one issuer. Unmanaged index returns assume reinvestment of any and all distributions and, unlike fund returns, do not reflect fees, expenses or sales charges. Investors cannot invest directly in an index. The **S&P SmallCap 600 Index** is a stock market index established by Standard & Poor's. It covers roughly the small-cap range of American stocks, using a capitalization-weighted index. To be included in the index, a stock must have a total market capitalization that ranges from \$850 million to \$3.6 billion. **S&P Global Infrastructure Index** provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. In order to create diversified exposure across the global listed infrastructure market, the index has balanced weights a cross three distinct infrastructure clusters: Utilities, Transportation and Energy. The **Bloomberg Short Treasury 1-3 Month Index** is generally considered representative of the performance of short-term money market investments and compares performance to public obligations of the US Treasury with maturities of 1-3 months. **ICE BofA US Municipal Securities Index** which tracks the performance of US Dollar denominated Investment Grade tax-exempt debt publicly issued by US states and territories and their political subdivisions, in the US domestic market. **ICE BofA US High Yield Municipal Securities Index** which tracks the performance of US Dollar denominated High Yield tax-exempt debt publicly issued by US states and territories and their political subdivisions, in the US domestic market. The **Bloomberg USD Emerging Market Composite Bond Index** is a rules-based, market-value-weighted index engineered to measure USD fixed-rate sovereign and corporate securities issued from emerging markets. The index includes both investment-grade and below-investment-grade securities. **Bloomberg Global Aggregate ex USD Index** which measures investment grade debt from 24 local currency markets. This multi-currency benchmark includes Treasury, government-related, corporate and securitized fixed-rate bonds from both developed and Emerging Market issuers. Bonds issued in USD are excluded. **HFRI Fund Weighted Composite Index** it is a global, equal weighted index of the largest hedge fund that are open to new investments and offer quarterly liquidity or better. The index constituents are classified into Equity Hedge, Event Driven, Macro or Relative Value strategies. The index is rebalanced on a quarterly basis. **S&P Listed Private Equity Index** which comprises the leading listed private equity companies that meet specific size, liquidity, exposure and activity requirements. The index is designed to provide tradable exposure to the leading publicly listed companies that are active in the private equity space. **Bloomberg Global Convertibles Index** tracks the performance the Global Convertible securities and is unhedged. The **MSCI Europe Index** captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe\*. With 429 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe. The **MSCI Japan Index** is designed to measure the performance of the large and mid cap segments of the Japanese market. The **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). With 742 constituents, the index covers about 85% of this China equity universe. Currently, the index includes Large Cap A and Mid Cap A shares represented at 20% of their free float adjusted market capitalization. The **Russell 2000® Growth Index** measures the performance of the small-cap growth segment of the US equity universe. It includes those Russell 2000® companies with higher price-to-value ratios and higher forecasted growth values. The Russell 2000® Growth Index is published and maintained by FTSE Russell. The **MSCI EAFE® Index** measures developed market equity performance (excluding the US and Canada). The **Bloomberg US Convertibles Liquid Bond Index** is designed to represent the market of US convertible securities, such as convertible bonds. Convertible bonds are bonds that can be exchanged, at the option of the holder, for a specific number of shares of the issuer's preferred stock ("Preferred Securities") or common stock. The Index components are a subset of issues in the Convertible Composite Index. The **Bloomberg US Corporate Bond Index** measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by US and non-US industrial, utility and financial issuers. The **Bloomberg Municipal Index** serves as a benchmark for the US municipal bond market. Investors will use this benchmark against portions of their portfolio that are allocated in fixed income securities. The **Dow Jones Industrial Average**, Dow Jones, or simply the Dow, is a price-weighted measurement stock market index of 30 prominent companies listed on stock exchanges in the United States. The **Nasdaq Composite** is a stock market index that includes almost all stocks listed on the Nasdaq stock exchange.

## Definitions

**Gross Domestic Product (GDP)** is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of the country's economic health. **Equity Risk Premium (ERP)** defined as the categories Fwd. Earnings Estimate / Price Yield subtract the risk-free rate (10yr Treasury rate). **Batting Average** reflects the number of positive outcomes as a percentage of the total. **Yield to Worst** is the lowest possible yield that can be received on a bond that fully operates within the terms of its contract without defaulting. It is a type of yield that is referenced when a bond has provisions that would allow the issuer to close it out before it matures. Early retirement of the bond could be forced through a few different provisions detailed in the bond's contract—most commonly callability. **Standard deviation** is a measure of volatility. **Sharpe ratio** is a calculation that reflects the reward per each unit of risk in a portfolio. The higher the ratio, the better the portfolio's risk-adjusted return is. **Upside capture ratio** measures a manager's performance in up markets relative to a named index. It is calculated by taking the security's upside capture return and dividing it by the benchmark's upside capture return. **Downside Capture Ratio** measures manager's performance in down markets as defined by the named index. A down-market is defined as those periods (months or quarters) in which named index return is less than 0. In essence, it tells you what percentage of the down-market was captured by the manager. For example, if the ratio is 110%, the manager has captured 110% of the down-market and therefore underperformed the market on the downside. **Beta** is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. **Correlation** is a statistic that measures the degree to which two variables move in relation to each other. An **annualized return** is the geometric average amount of money earned by an investment each year over a given time period.

Diversification and asset allocation does not guarantee a profit or protect against a loss.

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