

# MARKET PERSPECTIVES

QUARTERLY | Q3 2023

WEALTH MANAGEMENT INSIGHTS  
FROM STIFEL'S CIO OFFICE

## KEY TAKEAWAYS

- The U.S. economy displayed resilience throughout the first half of 2023, despite challenges posed by monetary policy tightening, regional banking difficulties, and debt ceiling drama.
- While we expect the lagging effects of cumulative tightening of monetary policy to slow the economy, the possibility of a recession is not yet set in stone.
- Inflation, a key concern for policymakers, has been declining and was at 3.0% year-over-year at the end of June, well below the 9.1% peak in June of last year.
- Uncertainty on the future path of inflation, monetary policy, and the economy remains, but we are closer to finding balance on these issues than at the start of the year.
- U.S. equity markets are well off the lows of last year, and we believe there are compelling opportunities for investors in both stocks and bonds.
- If you are invested and have a longer-term time horizon, it's better to stay invested.

## OVERVIEW

The U.S. economy displayed resilience throughout the first half of 2023, despite challenges posed by monetary policy tightening, regional banking difficulties, and debt ceiling drama. As economists revise their projections upward, the outlook for economic growth in 2023 shows notable improvement from initial estimates at the start of the year. While we expect the lagging effects of cumulative tightening of monetary policy to slow the economy, a recession in the near term is not a certainty.

Inflation, a key concern for policymakers, has been declining after reaching a peak of 9.1% year-over-year in June 2022. The Federal Reserve (Fed's) aggressive rate hikes, coupled with supply chain pressures easing and the rebalancing of pandemic-related imbalances, has contributed to a decline in inflation to 3.0% year-over-year in June 2023. However, certain components, such as housing, continue to exert upward pressure on the consumer price index (CPI), and the Fed has signaled two additional 25 basis point hikes this year. Real-time data, like the Zillow Rent Index, suggests that the shelter component of CPI should continue to fall in the months ahead, helping bring CPI closer to the Fed's 2% target.

U.S. equity market performance has been driven by mega-cap technology stocks, fueled by investor enthusiasm around artificial intelligence (AI). Broader market performance was more subdued but still positive, helped by moderating inflation and good economic data. The S&P 500 is up 16.9% year-to-date and over 20% from the lows in October, a key milestone among some

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# STIFEL

**“Despite the ongoing monetary policy tightening and the challenges faced by some regional banks, the economic data for the first half of 2023 revealed a resilient and still robust U.S. economy”**

**“Consumers’ willingness and ability to continue spending despite higher inflation and higher interest rates has allowed the U.S. economy to avoid a recession”**

investors who interpret this as a signal of a new bull market. Following two consecutive quarters of falling U.S. corporate profits, the earnings outlook is improving, and analysts are forecasting earnings growth in the second half of the year and 2024, which should bode well for stocks.

With continued restrictive monetary policy and still elevated uncertainty surrounding the global economy, we remain focused on quality. We believe there are compelling opportunities for investors in both stocks and bonds. We guide investors to consider active management selectively, where managers can apply their skills to focus on fundamentals and quality. In equities, we have a preference for companies that have strong balance sheets, considerable pricing power, the ability to grow dividends, and exposure to our [long-term investment themes](#). Within fixed income, the investment-grade bond market offers attractive yields and valuations. There is also opportunity within the commercial real estate market for skilled active managers.

If you are invested and have a longer-term time horizon, it’s better to stay invested. We revisit our dynamic leanings regularly and sometimes adjust as market conditions evolve.

## **THE U.S. ECONOMY – RECESSION RISK ELEVATED**

Despite the ongoing monetary policy tightening and the challenges faced by some regional banks, the economic data for the first half of 2023 revealed a resilient and still robust U.S. economy. Signs of a slowdown are emerging, but a recession isn’t yet a foregone conclusion.

The U.S. economy grew at a 2% annual pace in the first quarter, a sharp upward revision to an initial estimate of 1.3%, and above what the Fed views as the economy’s longer run potential (1.8%). This growth was largely supported by strong consumer spending. Economists currently project year-over-year growth of 1.3% for 2023, a notable improvement from the 0.30% consensus forecast at the beginning of the year.

### **CONSUMER – STILL SPENDING**

The consumer is a key driver of U.S. economic growth. Consumers’ willingness and ability to continue spending despite higher inflation and higher interest rates has allowed the U.S. economy to avoid a recession. The data shows that Americans are saving less and spending some of the excess savings accumulated during the pandemic. Personal savings as a percent of disposal income fell to 4.6% in May, well below the 10-year average of 8.3%. Consumers are estimated to still have approximately \$900 billion of excess savings, which should support continued spending in the second half of the year.

Retail sales rose 0.3% in May from April, better than consensus expectations. Spending was broad based with many categories positive, including furniture, electronics, and bars and restaurants. For the year, retail sales were up 1.6%. Consumer confidence improved substantially in June, as consumers remain positive on the job market and see inflation improving. The Conference Board Consumer Confidence Index increased in June to 109.7, up from 102.5 in May, the highest level since January 2022.

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**“Spending was broad based with many categories positive, including furniture, electronics, and bars and restaurants”**

**“Notably, job openings have declined by 1.1 million since the beginning of the year, bringing the openings to unemployment ratio to 1.6 from 1.8 at the start of the year”**



## **EMPLOYMENT – LABOR MARKET BALANCING IN PROGRESS**

The labor market remains tight and out of balance, with demand for workers still exceeding the supply available. Over the past six months, the unemployment rate has remained below 4% and most recently fell in June to 3.6% from 3.7% in May. This imbalance has resulted in sticky wage pressures, posing a challenge for the Fed.

Correspondingly, the Fed revised its year-end projection for unemployment to 4.1% from its previous estimate of 4.5% in March. This implies a 0.5% increase in unemployment by December, consistent with a continued slowdown in the economy. Notably, job openings have declined by 1.1 million since the beginning of the year, bringing the openings to unemployment ratio to 1.6 from 1.8 at the start of the year. This is still higher than the pre-pandemic average of 1.2.

## **HOUSING – LACK OF INVENTORY A BIGGER ISSUE THAN HIGHER MORTGAGE RATES**

The biggest headwind in the housing market remains the lack of inventory. Recently, higher rates have kept sellers from listing their homes, contributing to lower inventory. According to Redfin, there are 39% fewer homes for sale now than there were five years ago in June 2018.

Existing homes sales volume, which make up over 85% to 90% of total sales, rose 0.2% in May, but are still down 20% since last year. Housing starts jumped 21.7% in May, rising almost 6.0% over the year. The NAHB/Wells Fargo Housing Market Index showed that builder confidence shifted into positive territory for the first time in 11 months as a result of continued demand, improving supply chain efficiency, and lack of inventory.

The median sale price for existing homes was \$401,100 in May, down 3.4% from last year. New home prices were down 7.6% to \$416,300. For perspective, the median sale price for new and existing homes had increased approximately 43% from 2019 to 2022.

## **SERVICE AND MANUFACTURING SECTORS – IMPACTED BY TIGHT MONETARY POLICY**

Economic activity in the services sector has been outpacing the manufacturing sector since April 2021.

The Institute for Supply Management (ISM) Services Purchasing Managers' Index (PMI) rose from 50.3 in April to 53.9 in May, reflecting stronger business activity, new orders, and employment. The sector has been expanding (a reading above 50) in 36 of the last 37 months, with a lone contraction reading in December.

The ISM Manufacturing PMI was at 46.0 in May, a three-year low, and below 50 for the seventh consecutive month. This is the longest stretch the index has been below 50 since the Great Recession. For both sectors, inflation and higher rates remain an issue, yet confidence seems to be improving. We are keeping an eye on how tighter credit ability may impact businesses.



## INFLATION – FOCUSING ON THE FINAL 1% DECLINE

The Fed’s aggressive tightening of monetary policy, softening demand, and easing supply chain pressures have resulted in inflation falling from its peak of 9.1% year over year in June 2022 to 3.0% year over year in June 2023. The core services component, which includes housing, is 58% of the consumer price index (CPI) and remains elevated, contributing to CPI above the Fed’s 2% target.

Real-time shelter inflation measures, like the Zillow Rent Index, have fallen back to pre-pandemic levels, suggesting that the shelter component of CPI should continue to fall in the months ahead.

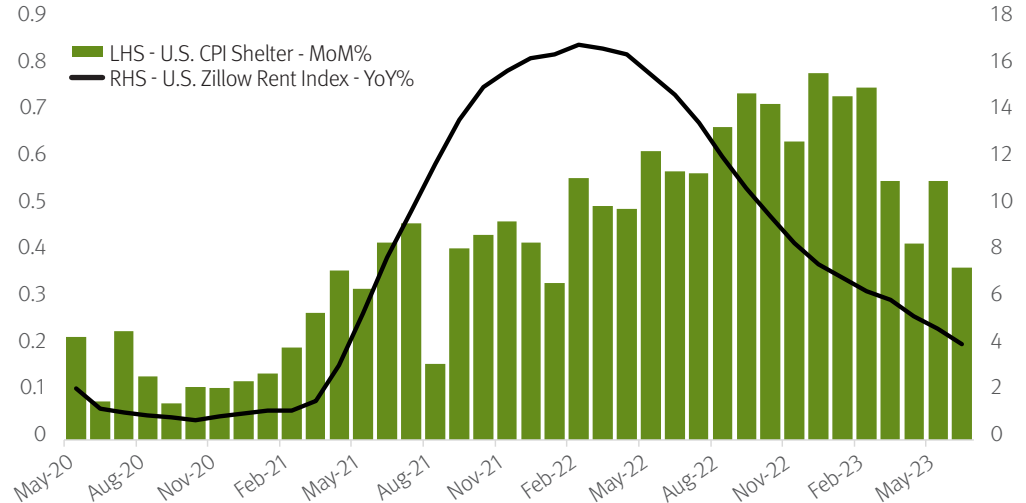
The “supercore” services component, which excludes housing, is labor intensive and very closely tied to the underlying job market dynamics. While cracks in the labor market are emerging, year-over-year wage growth was 4.3% in May, still above a level consistent with 2% inflation.

The three-month average of monthly increases for PPI ended since their peaks in June, and CPI were -0.1% and 0.2%, respectively, both close to 0.17%, the monthly equivalent of the Fed’s 2% target. In the Fed’s latest Summary of Economic Projections (SEP), Personal Consumption Expenditures (PCE) inflation is projected to be 3.2% (Q4/Q4) in 2023, down from 3.3% projected in March. The Fed expects inflation to fall to 2.1% in 2024.

## THE FEDERAL RESERVE – NEARING THE END OF THE HIKING CYCLE

The Federal Open Market Committee (FOMC) voted unanimously to hold rates unchanged at the June FOMC meeting and said it would keep reducing its balance sheet, but also signaled this may be more of a “skip” than a “pause.” The rationale for this action was that it lets the FOMC “assess additional information and its implications for monetary policy” ahead of the July meeting. Traders of fed funds futures are pricing in a 92.4% probability that the Fed hikes rates by 0.25% at the July 26 meeting.

**U.S. CPI Shelter vs. U.S. Zillow Rent Index**



Source: Stifel CIO Office via Bloomberg, as of June 30, 2023.

**“For the full year, analysts expect S&P 500 earnings will grow 1.0% in 2023 and 12.4% in 2024.”**

The FOMC also published its latest SEP, signaling the strong potential for two more 0.25% hikes this year while increasing its forecast for 2023 GDP growth and lowering its unemployment projection. This backdrop supports Fed Chair Jerome Powell’s expectation of a soft landing.

## **EQUITY EARNINGS – BREAKING EVEN**

First quarter earnings for the S&P 500 declined 2.0% on a year-over-year basis, an improvement compared to the fourth quarter decline of 4.6%. Rising input costs, tightening of monetary policy, and a slowing economy were again the main drivers of earnings performance.

Five of the 11 S&P 500 sectors had positive year-over-year earnings growth led by Consumer Discretionary (54.3%) and Industrials (22.7%). The Materials sector saw earnings fall 25.4% from the previous year.

Consensus bottom-up forecasts estimate S&P 500 company earnings declined 7.8% year over year during the second quarter. We expect the final number will be slightly better. For the full year, analysts expect S&P 500 earnings will grow 1.0% in 2023 and 12.4% in 2024. Earnings revision momentum has taken a positive turn in recent weeks. Analysts have shifted their forecasts upward, reflecting a trend of revising expectations higher rather than lower.

The forward 12-month price-to-earnings (P/E) ratio for the S&P 500 is 18.9, slightly above the five-year average (18.6), and above the 10-year average (17.4).

### **Latest Summary of Economic Projections from the Fed**

<b>Economic Variable</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Change in the real GDP</b>	<b>1.0%</b>	<b>1.2%</b>	<b>1.8%</b>
<b>March Projection</b>	<b>0.4%</b>	<b>1.2%</b>	<b>1.9%</b>
<b>Change from March</b>	<b>0.6%</b>	<b>0.0%</b>	<b>-0.1%</b>
<b>Unemployment Rate</b>	<b>4.1%</b>	<b>4.5%</b>	<b>4.5%</b>
<b>March Projection</b>	<b>4.5%</b>	<b>4.6%</b>	<b>4.6%</b>
<b>Change from March</b>	<b>-0.4%</b>	<b>-0.1%</b>	<b>-0.1%</b>
<b>PCE Inflation</b>	<b>3.2%</b>	<b>2.5%</b>	<b>2.1%</b>
<b>March projection</b>	<b>3.3%</b>	<b>2.5%</b>	<b>2.1%</b>
<b>Change from March</b>	<b>-0.1%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Core PCE Inflation</b>	<b>3.9%</b>	<b>2.6%</b>	<b>2.2%</b>
<b>March projection</b>	<b>3.6%</b>	<b>2.6%</b>	<b>2.1%</b>
<b>Change from March</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.1%</b>






Source: Stifel CIO Office via Federal Reserve, as of June 30, 2023.



## DYNAMIC ASSET ALLOCATION

The following table summarizes our thinking across various asset classes and regions.

 Underweight    
  Neutral    
  Overweight









	ASSET CLASS	CHANGE	CURRENT	COMMENTS
EQUITY	U.S. Equity vs. Non-U.S. Equity	=		We remain neutral between U.S. and non-U.S. equity. Although non-U.S. equity valuations remain more attractive, caution is warranted due to the prevailing global economic and geopolitical headwinds. Recent stress in the U.S. banking sector has increased the risk of a U.S. recession and earnings downgrades, which suggests volatility in the near term is possible.
	U.S. Large Cap vs. U.S. Small Cap	=		We are overweight to small cap equities but guide investors to consider active management to navigate the potential risks and uncertainties stemming from a slower economy and tighter lending. Skilled investors may be able to capitalize on the opportunities presented by lower valuations..
	U.S. Large Value vs. U. S. Large Growth	=		We believe investors should diversify across both value and growth styles. Within U.S. large cap, we have a modest overweight to dividend growth and quality companies, regardless of style, as these companies are typically better positioned to weather market volatility.
	Non-U.S. Developed Markets vs. Emerging Markets	=		Europe's winter was mild, and China appears to have fully reopened its economy following the end to its zero-COVID policy. However, both regions remain vulnerable to risks stemming from geopolitical tensions and a slowing global economy.
	Europe vs. Japan	=		We see investment opportunities across regions of the world. Japan's corporate governance reform is a positive and likely to enhance shareholder value in the medium to long term. Europe has proved to be more resilient thus far in the aftermath of the Ukraine war.

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## DYNAMIC ASSET ALLOCATION (CONTINUED)

The following table summarizes our thinking across various asset classes and regions.

 Underweight
  Neutral
  Overweight

	ASSET CLASS	CHANGE	CURRENT			COMMENTS
						
FIXED INCOME	U.S. Investment Grade vs. U.S. High Yield	=				Bond yields are the most attractive they have been in the last 10-15 years, despite coming off of recent highs. Near-term volatility and an economic slowdown may exacerbate near-term price losses in high yield.
	Corporates Government/Agency MBS	=				We remain neutral and diversified across fixed income supersectors given the fat tail risks of our bear and bull scenarios.
	Duration	=				We view duration as a diversifier in a multi-asset class portfolio given the macroeconomic uncertainty and remain neutral to the overall market.
ALTERNATIVES	Private Assets	=				For investors interested in alternative investments and able to handle illiquidity, exposure to some combination of private equity, private debt, and/or private real estate can be considered as part of a diversified portfolio.
	Hedge Funds	=				For investors interested in alternative investments and able to handle less liquidity who have conviction about manager skill, exposure to hedge funds can be a helpful part of a diversified portfolio. This is especially true in volatile, low-return environments.

**“U.S. EQUITY MARKETS HAD A STRONG FIRST HALF DESPITE RISING GEOPOLITICAL TENSIONS, CONTINUED CENTRAL BANK TIGHTENING, REGIONAL BANK FAILURES, AND DEBT CEILING UNCERTAINTY.”**



## **CAPITAL MARKETS RECAP**

Equity and bond markets were higher in the second quarter. In the U.S., the S&P 500 entered a new bull market, up more than 20% from the October lows. Treasury yields rose, in part, due to strong economic data and the Fed’s commentary on the future of monetary policy. Gold and oil prices moved lower.

### **EQUITY**

U.S. equity markets had a strong first half despite rising geopolitical tensions, continued central bank tightening, regional bank failures, and debt ceiling uncertainty. The majority of the gains were driven by meg-cap technology stocks as a result of investor enthusiasm around AI. The better-than-expected economic data and cooling inflation served as a tailwind, but the performance of the broader market was relatively more muted.

The S&P 500 advanced 8.7% in the second quarter, bringing its year-to-date (YTD) return to 16.9%. The S&P 500 Equal Weighted Index is up 7.0% YTD. The technology heavy Nasdaq 100 is up 39.4% for the year. Small cap stocks, as measured by the Russell 2000 index, returned 5.2% for the quarter and 8.1% for the first half.

Non-U.S. equity markets performed well. For Q2 2023, the MSCI EAFE Index, representing non-U.S. developed markets, returned 3.0% and remains up 11.7% YTD. This rise is in part due to a weaker U.S. dollar and strong returns in Japan. As measured by the MSCI EM Index, emerging markets was relatively flat this quarter, returning 0.9%, driven mainly by the decline in the MSCI China Index (-5.5%) as investors optimism around its post-COVID reopening faded.

### **FIXED INCOME**

Bond yields rose, driving prices lower, amid a surprise acceleration in the May consumer price index and the Fed’s signaling of further rate hikes. The 10-year Treasury yield opened the quarter at 3.47% and ended the quarter at 3.84%, a level last seen prior to the start of the bank troubles in March. The two-year Treasury yield rose from 4.02% to 4.90%. The Bloomberg U.S. Aggregate Index, representing investment-grade taxable bonds, returned 0.84% for the quarter. The Bloomberg U.S. Municipal Bond Index, representing investment-grade municipal bonds, returned -0.10%. As measured by the Bloomberg Corporate High Yield Index, high-yield bonds were up 1.75%, as better-than-expected earnings have supported credit quality

### **COMMODITIES**

The Bloomberg Commodity Index was down 3.8% for the quarter, as weakening global manufacturing and a slowing global economy pushed prices lower. West Texas Intermediate fell 6.6% to \$70.64/barrel and gold prices fell 2.5% to \$1,919.35/oz.

The U.S. dollar was essentially flat against a basket of currencies, up just 0.40% for the quarter, bringing its YTD return to -0.6%.



**FIGURE 4. CAPITAL MARKET RETURNS (AS OF JUNE 30, 2023)**

<b>NORTH AMERICAN EQUITY</b>	<b>MTD (%)</b>	<b>QTD (%)</b>	<b>YTD (%)</b>	<b>1 YEAR (%)</b>	<b>3 YEAR (%)*</b>	<b>5 YEAR (%)*</b>
Russell 3000 Index	6.83	8.39	16.17	18.95	13.89	11.39
Standard & Poor's 500	6.61	8.74	16.89	19.59	14.60	12.31
Standard & Poor's/TSX (CAD)	3.35	1.10	5.70	10.43	12.42	7.62
<b>U.S. EQUITY BY SIZE/STYLE</b>						
Russell 1000 Index	6.75	8.58	16.68	19.36	14.09	11.92
Russell 1000 Growth Index	6.84	12.81	29.02	27.11	13.73	15.14
Russell 1000 Value Index	6.64	4.07	5.12	11.54	14.30	8.11
Russell 2000 Small Cap Index	8.13	5.21	8.09	12.31	10.82	4.21
Russell 2000 Small Cap Growth Index	8.29	7.05	13.55	18.53	6.10	4.22
Russell 2000 Small Cap Value Index	7.94	3.18	2.50	6.01	15.43	3.54
Russell Microcap Index	6.59	5.29	2.32	6.63	9.09	2.07
<b>INTERNATIONAL EQUITY (USD)</b>						
MSCI AC World ex U.S.	4.49	2.44	9.47	12.72	7.22	3.52
MSCI EAFE	4.55	2.95	11.67	18.77	8.93	4.39
MSCI Europe	4.79	2.74	13.59	21.81	10.68	5.19
MSCI Pacific	4.23	-1.80	0.32	5.85	6.54	2.66
MSCI Japan	4.10	6.42	13.00	18.14	5.70	3.13
MSCI Emerging Markets	3.80	0.90	4.89	1.75	2.32	0.93

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**FIGURE 4. CAPITAL MARKET RETURNS (AS OF JUNE 30, 2023)**

U.S. FIXED INCOME	MTD (%)	QTD (%)	YTD (%)	1 YEAR (%)	3 YEAR (%)*	5 YEAR (%)*
Bloomberg U.S. Treasury Bills: 1-3 Months	0.43	1.22	2.33	3.73	1.31	1.53
Bloomberg U.S. Aggregate	-0.36	-0.84	2.09	-0.94	-3.96	0.77
Bloomberg Gov't/Credit	-0.32	-0.93	2.21	-0.70	-4.11	1.03
Bloomberg Treasury	-0.75	-1.38	1.59	-2.13	-4.80	0.44
Bloomberg U.S. TIPS	-0.34	-1.42	1.87	-1.40	-0.12	2.49
Bloomberg Municipal Bond Index	1.00	-0.10	2.67	3.19	-0.58	1.84
Bloomberg U.S. Credit	0.31	-0.31	3.13	1.39	-3.38	1.65
Bloomberg Corporate High Yield	1.67	1.75	5.38	9.06	3.13	3.36
REAL ESTATE/COMMODITIES/ALTERNATIVES						
Wilshire U.S. Real Estate Securities Index	5.44	3.29	6.85	-0.13	8.63	4.41
Wilshire Global ex U.S. Real Estate Securities Index	0.53	-1.98	-2.29	-5.42	1.11	-2.20
Wilshire Global Real Estate Securities	4.11	1.87	4.26	-1.54	6.43	2.36
Bloomberg Commodity Index	4.04	-2.56	-7.79	-9.61	17.82	4.73
S&P GSCI Commodity (S&P GSCI)	4.39	-2.73	-7.54	-14.22	25.11	2.76
Wilshire Liquid Alternatives Index	1.35	1.38	2.60	2.46	2.70	1.66
Wilshire Liquid Alternative Equity Hedge Index	2.94	3.66	6.20	7.60	6.97	3.61
Wilshire Liquid Alternative Event Driven Index	0.92	-0.22	0.20	1.39	1.75	1.79
Wilshire Liquid Alternative Global Macro Index	1.14	3.22	0.51	-1.18	5.36	3.55
Wilshire Liquid Alternative Multi-strategy Index	2.11	1.45	2.60	2.61	2.83	0.98
Wilshire Liquid Alternative Relative Value Index	0.20	-0.19	1.34	0.29	-0.30	0.35
Wilshire Focused Liquid Alternative Index	1.10	0.97	1.41	1.57	2.48	1.77

Source: Stifel Investment Strategy via Bloomberg as of June 30, 2023

\*Represents annualized returns

## DISCLOSURE

The MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market. With 322 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

The MSCI EM (Emerging Markets) Europe, Middle East and Africa Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the emerging market countries of Europe, the Middle East, and Africa.

The 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, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS (agency and nonagency). Provided the necessary inclusion rules are met, U.S. Aggregate-eligible securities also contribute to the multicurrency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.

The Bloomberg U.S. Government/Credit Bond Index is a broad-based flagship benchmark that measures the non-securitized component of the U.S. Aggregate Index. It includes investment-grade, U.S. dollar-denominated, fixed-rate Treasuries, government-related, and corporate securities.

The Bloomberg U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index. STRIPS are excluded from the index because their inclusion would result in double-counting. The U.S. Treasury Index is a component of the U.S. Aggregate, U.S. Universal, Global Aggregate, and Global Treasury Indices.

The Bloomberg U.S. Treasury U.S. TIPS index includes all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade, and have \$250 million or more of outstanding face value.

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

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

The Bloomberg U.S. Corporate High Yield Bond Index measures the U.S. dollar-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.

The Bloomberg Global Aggregate Bond Index is a flagship measure of global investment-grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate, and securitized fixed-rate bonds from both developed and emerging markets issuers.

The Bloomberg Emerging Markets Hard Currency Aggregate Index is a flagship hard currency Emerging Markets debt benchmark that includes U.S. dollar-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

The Wilshire U.S. REIT Index is a float-adjusted market capitalization-weighted index that measures U.S. publicly traded real estate investment trusts (REITs), excluding mortgage REITs, net-lease REITs, real estate finance companies, home builders, large landowners and sub-dividers, hybrid REITs, and companies that have more than 25% of their assets in direct mortgage investments.

The Wilshire ex U.S. Real Estate Investment Trust Index<sup>SM</sup> (Wilshire ex U.S. REIT) measures global publicly traded real estate investment trusts, less all U.S. securities.

The Wilshire ex U.S. REIT is a subset of the Wilshire ex U.S. Real Estate Securities Index<sup>SM</sup> (Wilshire ex U.S. RESI).

The Wilshire Global REIT Index is a float-adjusted, market capitalization-weighted index that measures global publicly traded real estate investment trusts (REITs), excluding mortgage REITs, net-lease REITs, real estate finance companies, home builders, large landowners and sub-dividers, hybrid REITs, and companies that have more than 25% of their assets in direct mortgage investments.

Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted two-thirds by trading volume and one-third by world production, and weight-caps are applied at the commodity, sector, and group level for diversification. Roll period typically occurs from the sixth to the tenth business day based on the roll schedule.

The S&P GSCI (formerly the Goldman Sachs Commodity Index) serves as a benchmark for investment in the commodity markets and as a measure of commodity performance over time. The index was originally developed by Goldman Sachs. In 2007, ownership transferred to Standard & Poor's, which currently owns and publishes it. Futures of the S&P GSCI use a multiple of 250. The S&P GSCI contains as many commodities as possible, with rules excluding certain commodities to maintain liquidity and investability in the underlying futures markets. The index currently comprises 24 commodities from all commodity sectors.

The Wilshire Liquid Alternative Index<sup>SM</sup> measures the collective performance of the five Wilshire Liquid Alternative strategies that make up the Wilshire Liquid Alternative Universe. The Wilshire Liquid Alternative Index (WLIQA) is designed to provide a broad measure of the liquid alternative market by combining the performance of the Wilshire Liquid Alternative Equity Hedge Index<sup>SM</sup> (WLIQAEH), Wilshire Liquid Alternative Global Macro Index<sup>SM</sup> (WLIQAGM), Wilshire Liquid Alternative Relative Value Index<sup>SM</sup> (WLIQARV), Wilshire Liquid Alternative Multi-Strategy Index<sup>SM</sup> (WLIQAMS), and Wilshire Liquid Alternative Event Driven Index<sup>SM</sup> (WLIQAED).

The Russell 2000 Index measures the performance of the 2,000 smallest companies in the broader Russell 3000 Index, which measures the performance of the 3,000 largest U.S. companies based on total market capitalization. The average market capitalization is approximately \$490 million, and the median market capitalization is approximately \$395 million.

The Russell 2000 Growth Index measures the performance of those Russell 2000 index companies with higher price-to-book ratios and higher forecasted growth values.

The Russell 2000 Value Index measures the performance of those Russell 2000 index companies with lower price-to-book ratios and lower forecasted growth values.

The Russell Microcap Index is a capitalization-weighted index of 2,000 small cap and micro cap stocks, including the smallest 1,000 companies in the Russell 2000 plus 1,000 smaller U.S. based listed stocks. Over-the-counter stocks and pink sheet securities are excluded.

The MSCI World ex USA All Cap Index captures large, mid, small, and micro cap representation across 22 of 23 Developed Markets (DM) countries (excluding the United States). With 8,138 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in each country.

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

The MSCI Europe Index is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of the developed markets in Europe.

The MSCI Pacific Index captures large and mid cap representation across five Developed Markets (DM) countries in the Pacific region. With 470 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The Russell 1000 Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which measures the performance of the 3,000 largest U.S. companies based on total market capitalization. The average market capitalization is approximately \$11 billion, and the median market capitalization is approximately \$3.5 billion.

The Russell 1000 Growth Index measures the performance of those Russell 1000 index companies with higher price-to-book ratios and higher forecasted growth values.

The Russell 1000 Value Index measures the performance of those Russell 1000 index companies with lower price-to-book ratios and lower forecasted growth values.

The Russell 3000 Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market. The average market capitalization is approximately \$4 billion, and the median market capitalization is approximately \$700 million.

The Standard & Poor's 500 Index is a capitalization-weighted index that is generally considered representative of the U.S. large capitalization market.

The S&P/TSX Composite Index is the benchmark Canadian index, representing roughly 70% of the total market capitalization on the Toronto Stock Exchange with about 250 companies included in it. The Toronto Stock Exchange is made up of over 1,500 companies.

The Wilshire Focused Liquid Alternative Index<sup>SM</sup> is a subset of the Wilshire Liquid Alternative Index<sup>SM</sup> and measures the performance of a focused basket of mutual funds that provides risk adjusted exposure to equity hedge, global macro, relative value, and event driven alternative investment strategies.

High yield bonds have greater credit risk than higher quality bonds.

Small company stocks are typically more volatile and carry additional risks, since smaller companies generally are not as well established as larger companies.

There are special considerations associated with international investing, including the risk of currency fluctuations and political and economic events. Investing in emerging markets may involve greater risk and volatility than investing in more developed countries.

When investing in real estate companies, property values can fall due to environmental, economic, or other reasons, and changes in interest rates can negatively impact the performance.

Alternative investments involve a high degree of risk, often engage in leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing tax information, are not subject to the same regulatory requirements as more traditional investments, and often charge high fees, which may erode performance. An investment is appropriate only for investors who have the capacity to absorb a loss of some or all of their investment.

Private equity funds are not appropriate for all investors. Investors should be aware that private equity funds may contain speculative investment practices that can lead to a loss of the entire investment. Private equity funds may invest in entities in which no secondary market exists and, as such, may be highly illiquid. The funds are not required to provide periodic pricing or valuation information to investors and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information.

*Investors should be aware that hedge funds often engage in leverage, short-selling, arbitrage, hedging, derivatives, and other speculative investment practices that may increase investment loss. Hedge funds can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information. While hedge funds may appear similar to mutual funds, they are not necessarily subject to the same regulatory requirements as mutual funds.*

Indices are unmanaged and are not available for direct investment. Past performance is no guarantee of future results. Index returns include the reinvestment of dividends but do not include adjustments for brokerage, custodian, and advisory fees.

Past performance is not indicative of future results.