



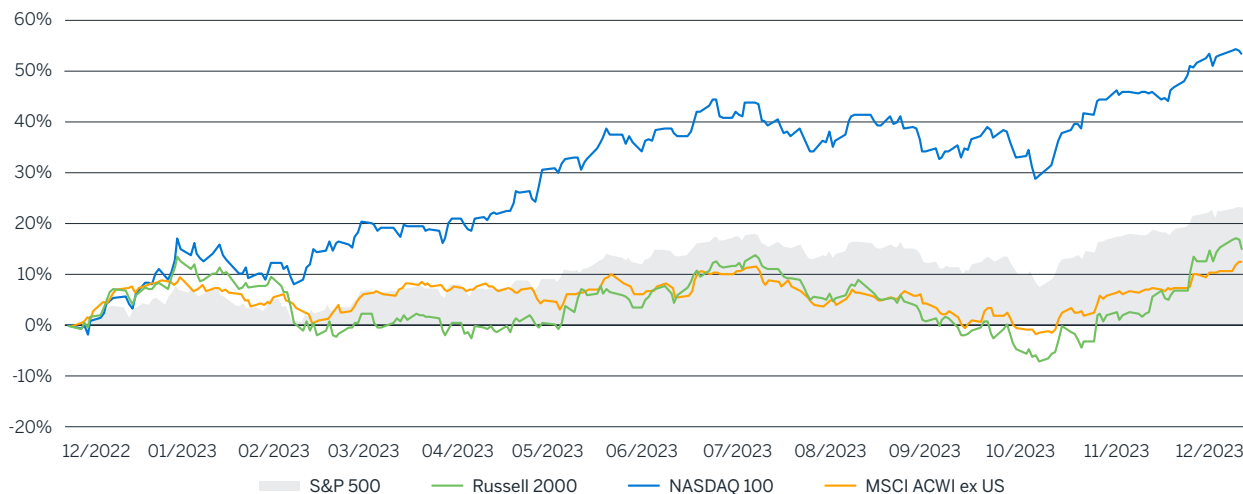
# Milliman Financial Risk Management

## 2023 YTD MARKET COMMENTARY – DECEMBER 2023

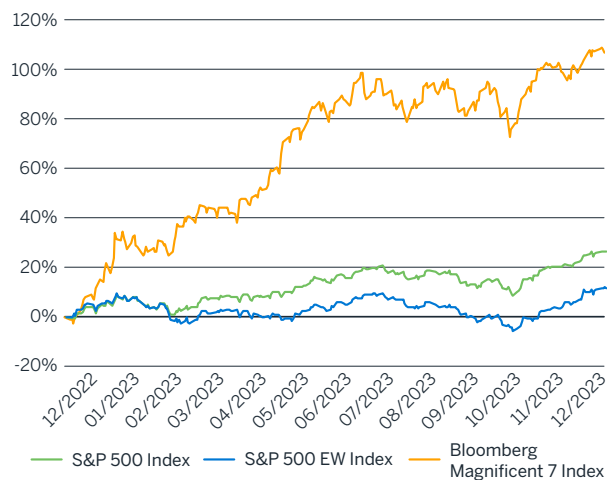
### MILLIMAN

- Against the backdrop of retreating inflationary pressures, the Federal Reserve decided to keep its target rate steady at 5.25%-5.50% to close out 2023. This choice bolstered investor confidence, hinting at the possibility of steering clear of a recession and sparking speculation about potential rate cuts in the upcoming year.
- Equity markets rallied into the end of the year:
  - The S&P 500 finished the fourth quarter up 11.7% and returned 26.4% on the year.
  - While small caps lagged most of the year, the Russell 2000 was able to bound back from its October lows and close the quarter out up 14%. The index finished the year up 16.9%.
  - The technology heavy NASDAQ posted its best year since 2020, finishing the fourth quarter up 14.6% and the year up 55.3%.
- Growth companies, particularly those in the technology and artificial intelligence space, experienced the most enhanced returns this year. The Bloomberg Magnificent 7 Index, an equal weighted index that tracks the total returns of just 7 companies (NVDA, MSFT, AAPL, META, GOOGL, AMZN, TSLA), finished the year up over 107%. In contrast, the Equal Weighted S&P 500 Index closed 2023 out up 13.9%.
- International markets lagged U.S. markets. The MSCI ACWI ex US closed the year out up 16.3%.

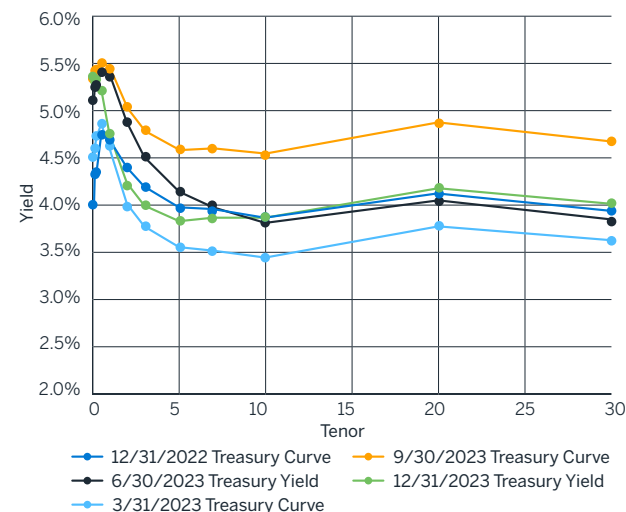
### 2023 Equity Market Total Returns



### 2023 YTD Returns S&P 500 vs Equal Weighted S&P 500 vs BBG Mag 7



### Treasury Yield Curves YTD 2023



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- The yield curve remains inverted with short term yields higher than those with longer maturities. Rates leading out to the tail end of the curve have dropped considerably from last quarter, erasing many of the jumps seen in the third quarter.
- 10-year yields moved lower by 69 basis points since September 2023. 20-year yields fell by over 70 basis points in the same time frame. The iShares 20+ Year Treasury Bond ETF (ticker: TLT), which whipsawed for much of 2023, was able to post a 2.8% return on the year after hovering near its 2013 lows in October.
- The Bloomberg US Aggregate finished 2023 up 5.5%

## STRATEGY PERFORMANCE

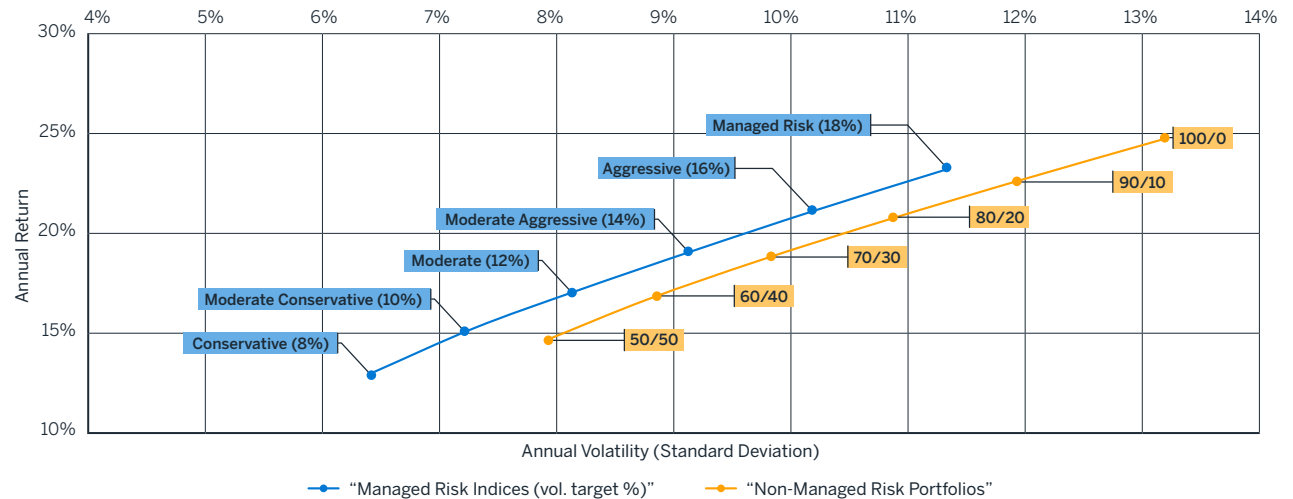
### Managed Risk Investments

- Despite small flashes of volatility at the end of October and the middle of November, the volatility of the S&P 500 remained relatively muted going into year end. Accordingly, the managed risk strategies were able to maintain strong equity allocations for much of the quarter.
- In 2023, the S&P 500 Managed Risk – Moderate Conservative Index posted strong risk adjusted returns compared to non-managed blends of the S&P 500 and Bloomberg U.S. Aggregate Bond Indices along with lower drawdowns.

### Defined Outcome

- In the defined outcome space, the January CBOE S&P 500 15% Buffer protect index was able to capture over 70% of the S&P 500 returns in 2023.
- With equities rallying, the buffer did not come into play and the index hit its one-year upside cap rate.
- The risk-adjusted return of the Buffered index has outperformed that of the S&P 500 this year.

S&P 500 Managed Risk Indices vs. Non-Managed Risk Portfolios 2023\*



	Total Returns as of December 29, 2023				
	S&P 500	70/30 Stock/Bond Blend*	60/40 Stock/Bond Blend*	S&P 500 Managed Risk-Moderate Conservative Index (10% Vol. Target)	CBOE S&P 500 15% Buffer Protect Index - January Series
1 Year	26.4%	20.0%	17.9%	15.1%	18.6%
5 Year	15.7%	11.7%	10.3%	7.8%	8.4%
10 Year	12.0%	9.3%	8.3%	6.7%	6.4%
1YR Vol	13.1%	9.7%	8.8%	7.3%	7.5%
5YR Vol	21.4%	15.1%	13.1%	7.8%	11.5%
10YR Vol	17.8%	12.5%	10.7%	7.3%	9.1%
1YR Risk Adjusted	2.01	2.05	2.04	2.06	2.49
5YR Risk Adjusted	0.73	0.77	0.78	1.00	0.73
10YR Risk Adjusted	0.68	0.74	0.77	0.92	0.70
1YR Max Drawdown	-9.9%	-8.3%	-7.7%	-7.4%	-5.6%
5YR Max Drawdown	-0.34	-0.25	-0.22	-0.16	-0.20
10YR Max Drawdown	-33.8%	-24.7%	-21.5%	-16.0%	-20.0%

\*Portfolio represented by the S&P 500 Index and the Bloomberg US Agg Index

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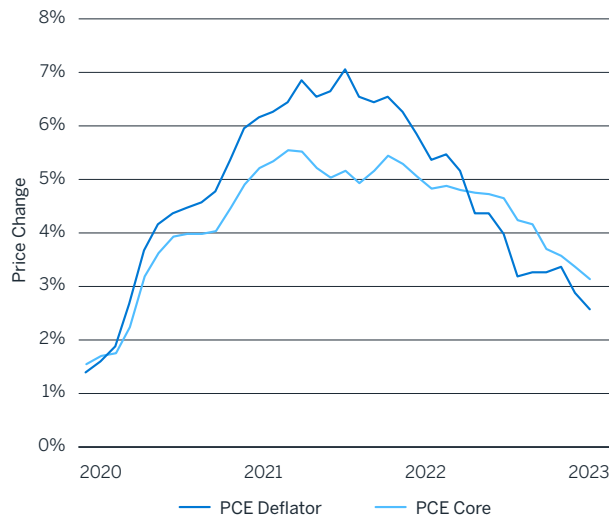
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### OUTLOOK

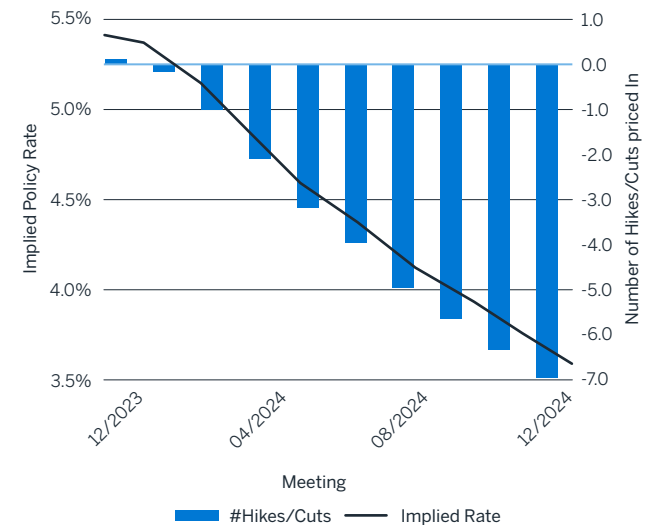
#### The Fed and Inflation

- After consecutive rate pauses by the Federal Reserve and a continued downward trend in inflation data, investors remain focused on the Fed's next move.
- The Fed's favored inflation gauge, the PCE deflator, which tracks the overall price for goods and services purchased by consumers, read 2.6% in November, signaling that more rate hikes are likely out of the equation at least in the near future. Core PCE, which excludes food and energy prices, continued to soften down to 3.16% in November.
- With inflation retreating, Fed Funds futures traders are currently pricing in 6 rate cuts in 2024.
- This is despite the Fed's dot plot only pricing in 3 until the September.
- While rate cuts are typically supportive for equity and bond markets, a pivot could undermine the Fed's mission to control inflation.
- If the Federal Reserve is unable to stamp down inflation and yet pivots, there could be a scenario, like in the 1970's, where inflation begins to advance again, and the Fed is again back at square one using policy tools to stabilize prices.
- The market continues to show optimism in the hopes of a soft-landing scenario. According to the Bloomberg U.S. Recession Probability Forecast, surveyed banks have lowered their estimates of the U.S. slipping into a recession within the next 12 months to 50% from 65% at the beginning of the year.

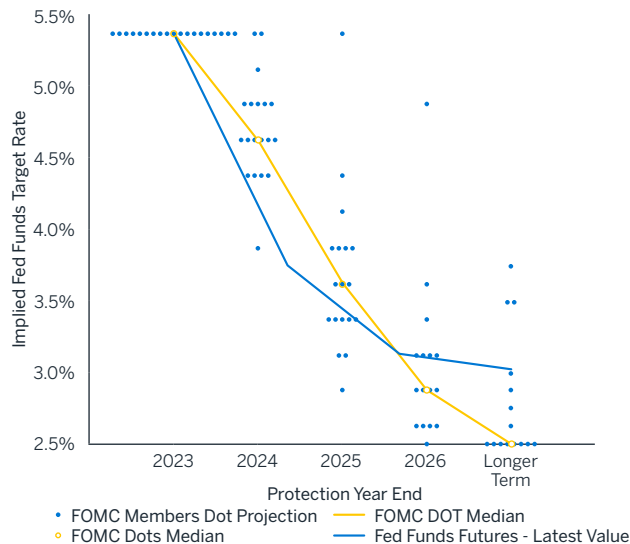
PCE Deflator Y/Y & PCE Core Deflator Y/Y



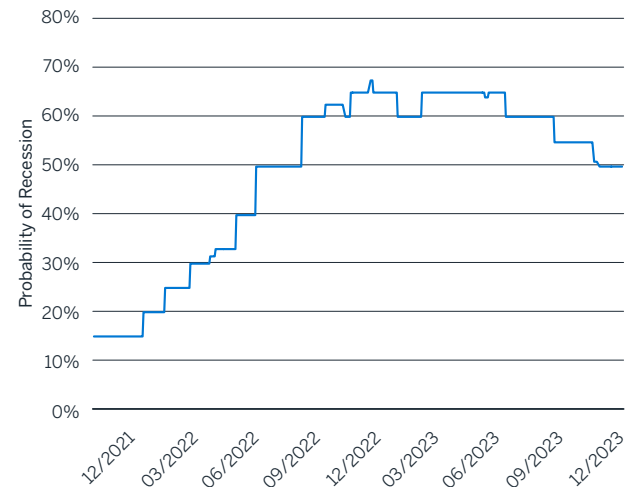
Implied Fed Funds Rate & Number of Hikes/Cuts



Implied Fed Funds Target Rate



Bloomberg U.S. Recession Probability Forecast



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## Definitions:

**Standard Deviation:** measures volatility in the market or the average amount by which individual data points differ from the mean. **Bloomberg US Aggregate Index:** a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. **NASDAQ 100 Index:** a modified capitalization-weighted index of the 100 largest and most active non-financial domestic and international issues listed on the NASDAQ. **S&P 500:** widely regarded as the best single gauge of large-cap U.S. equities and serves as the foundation for a wide range of investment products. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization. **S&P Oil:** S&P GSCI Crude Oil Total Return CME Index. The index is weighted based on world production and it uses spot prices to calculate price. **S&P US REIT:** defines and measures the investable universe of publicly traded real estate investment trusts domiciled in the United States. **S&P 500 Value:** measures the performance of the large-capitalization value segment in the U.S. equity market. The Index consists of those stocks in the S&P 500 Index exhibiting the strongest value characteristics based on: (i) book value to price ratio; (ii) earnings to price ratio; and (iii) sales to price ratio. **S&P 500 Growth:** measures the performance of the large-capitalization growth segment in the U.S. equity market. The Index consists of those stocks in the S&P 500 Index exhibiting the strongest growth characteristics based on: (i) momentum; (ii) earnings to price ratio; and (iii) sales to price ratio. **S&P Global 1200:** global equity index, captures approximately 70% of the world's market capitalization. It is a composite of seven headline regional indices: S&P 500®, S&P Europe 350®, S&P TOPIX 150, S&P/TSX 60, S&P/ASX All Australian 50, S&P Asia 50, and S&P Latin America 40. **CPI:** a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. **Correlation:** describes the relationship that exists between two indices or securities and their respective price movements. **Basis Points (bps):** Standard measure of percentages in finance. One basis point is one hundredth of one percent. **Drawdown:** How much the price of an index or security is down from the peak before it recovers back to the peak.

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