# Can Managed Futures Improve Your Retirement?

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Trend following managed futures has historically helped to reduce drawdowns, which may potentially improve the sustainability of a retirement portfolio.

It is generally recommended to plan for a retirement of 30 years or longer, placing a crucial emphasis on choosing the right mix of investments to maximize the sustainability of the portfolio during the distribution phase when the retiree is taking withdrawals. While portfolios should be customized to each individual according to specific goals and risk tolerances, there are alternative investment strategies that may have the potential to improve long-term outcomes for retirees.

In this paper we demonstrate the potential benefits of adding a trend following managed futures allocation to a hypothetical retirement portfolio of stocks and bonds. We found that historically, including a managed futures allocation during the distribution phase of the portfolio lifecycle led to a higher running portfolio value compared to a similar hypothetical portfolio without managed futures exposure. For the hypothetical portfolios, we used the S&P 500 Total Return Index to represent stocks, the Bloomberg Barclays US Aggregate Bond Index to represent bonds and the SG Trend Index to represent trend following managed futures.

Investors typically build retirement portfolios by selecting investments based on a simple comparison of absolute returns. More sophisticated investors are likely to analyze risk-adjusted returns and correlations. However, investors often neglect to consider the potential impact of drawdowns (a measure of peak-to-valley declines) on a retirement portfolio. This could be because drawdowns do not necessarily have a long-term impact when the investor is in the accumulation (savings) phase of the retirement portfolio cycle. But once an investor reaches retirement and the distribution phase (withdrawals) kicks in, drawdowns can potentially have an outsized effect on the portfolio.

For this analysis we introduce the concept of drawdowns and the impact of drawdowns on a hypothetical retirement portfolio when an investor is taking fixed dollar monthly distributions. We illustrate how adding an alternative investment strategy such as trend following managed futures would have helped to reduce drawdowns, which may potentially improve the sustainability of a retirement portfolio.

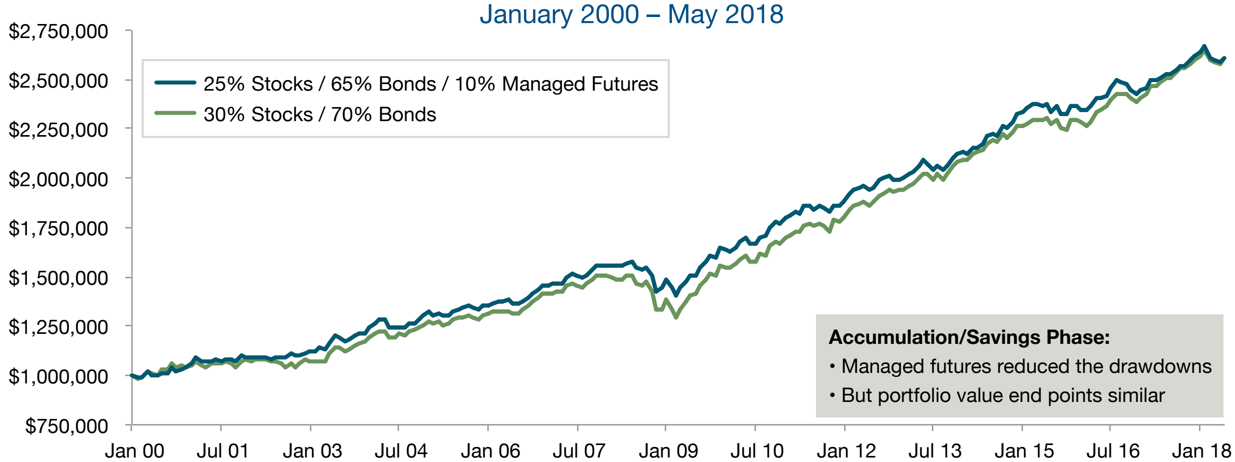
## **Scenario 1** | Investment Portfolio with No Distributions Taken

Retirement Date: 12/31/1999
Portfolio Value at Retirement: $1,000,000
Distributions (withdrawals): None

For the first scenario we assume the retiree has additional sources of income and does not need to take distributions from the retirement portfolio. We also assume the retiree is relatively risk averse and has targeted either a 30/70 portfolio consisting of (30%) stocks and (70%) bonds or a 25/65/10 portfolio consisting of (25%) stocks, (65%) bonds and (10%) trend following managed futures. The following chart (Chart 1) compares how these two hypothetical portfolios would have performed, assuming there were no additional funds added or withdrawn, through May 2018.

**Performance for Hypothetical Portfolios with No Distributions Taken**

January 2000 – May 2018




**PLEASE NOTE:** These hypothetical scenarios illustrations do not reflect the performance of any Steben portfolio. This is intended for illustrative purposes only and there can be no assurance that a trend following strategy will achieve any particular level of return. The allocation of assets may hurt performance, and efforts to balance risk exposures may be unsuccessful. The models or data may be incorrect or incomplete, and reliance on those models or data may not produce the desired results. Asset prices may fall or fail to rise over time for several reasons, including general financial market conditions, changing market perceptions (including, in the case of bonds, perceptions about the risk of default and expectations about monetary policy or interest rates), changes in the financial markets, and other factors. These and other factors may also lead to increased volatility and reduced liquidity in the portfolio. Results may vary with each use and over time; other investments not considered may have characteristics similar or greater to those analyzed.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. DIVERSIFICATION DOES NOT ASSURE A PROFIT OR GUARANTEE AGAINST A LOSS. The S&P 500 Total Return Index, the Bloomberg Barclays US Aggregate Bond Index and the SG Trend Index represent stocks, bonds and trend-following managed futures, respectively. Calculated using month-end data. Portfolios rebalanced every 6 months. **The projections or the other information generated regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results.** See Glossary for definitions.

**CHART 1** Source: Steben & Company

Although the drawdowns in the portfolio with managed futures were less severe, the 30/70 portfolio and the 25/65/10 portfolio ended up at approximately the same level with a value of $2.61M. The difference between the ending values is less than 1%.

During the period, the 30/70 portfolio experienced a notably larger maximum drawdown. In February 2009, the 30/70 portfolio reached a maximum drawdown of 14.1%, while the 25/65/10 portfolio experienced a maximum drawdown of only 10.5% (Chart 2).

**Drawdowns for Hypothetical Portfolios with No Distributions Taken**
January 2000 – May 2018

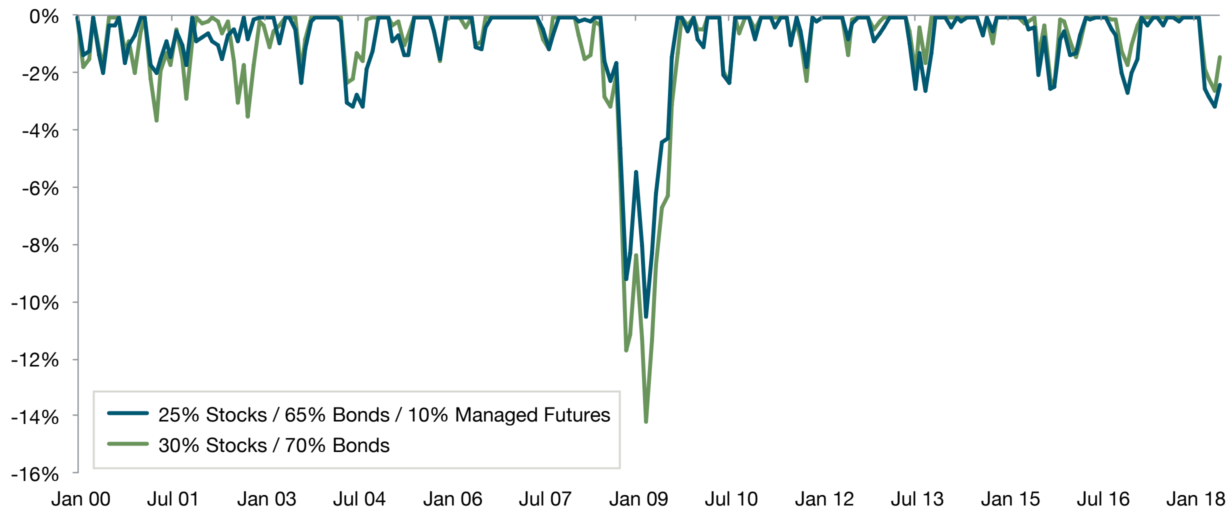



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**CHART 2** Source: Steben & Company

For the first scenario where we assumed no withdrawals were made, the difference in the maximum drawdown between the two portfolios had little effect on the ending portfolio values. Let us now compare this result with a scenario where the retiree takes monthly distributions from their investment portfolio.

## **Scenario 2** | Investment Portfolio with Monthly Distributions Taken

Retirement Date: 12/31/1999

Portfolio Value at Retirement: $1,000,000

Distributions (withdrawals): $5,000 Monthly

Recall the first scenario assumed a $1,000,000 portfolio with no monthly distributions, invested in either a 30/70 (stock/bond) portfolio or a 25/65/10 (stock/bond/trend following managed futures) portfolio. Now consider an investor who takes $5,000 withdrawals each month from the hypothetical retirement portfolio, which represents 6% a year, based on the initial portfolio value. In practice however, as the underlying portfolio value changes, $5,000 will begin to represent a different percentage of the portfolio each month.

This scenario shows that the 25/65/10 asset allocation leads to a meaningfully higher ending portfolio value at the end of May 2018 (Chart 3). Including a 10% allocation to trend following managed futures resulted in an ending portfolio value of $746,325 versus $684,546 for the 30/70 portfolio, representing a difference of 9%.

**Hypothetical Portfolios with Monthly Distributions (Withdrawals) Taken**
January 2000 – May 2018

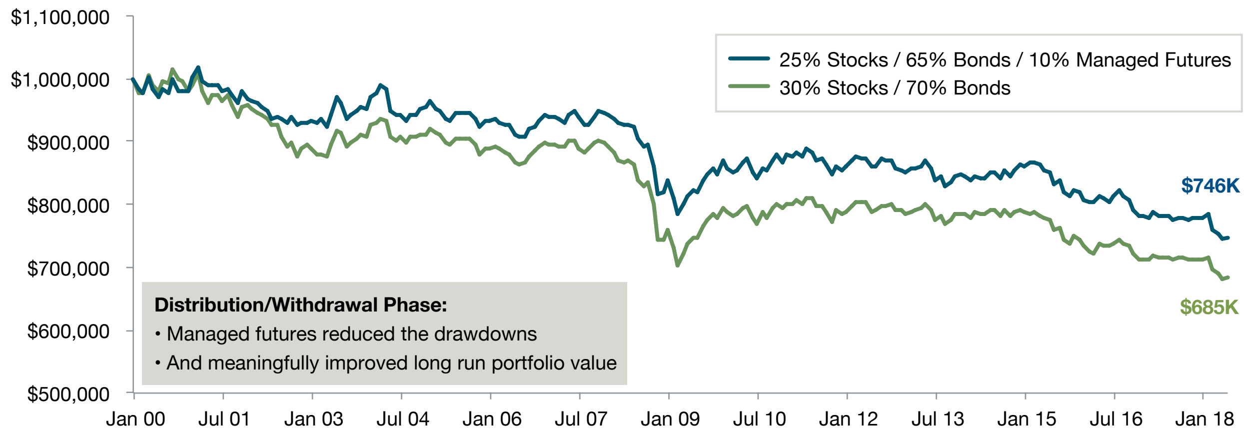


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**CHART 3** Source: Steben & Company

The introduction of consistent monthly withdrawals means that deeper drawdowns severely impact the long-term sustainability of the retirement portfolio. When large drawdowns occur, a regular monthly withdrawal means that a larger percentage of the portfolio is being distributed to the retiree when the portfolio is at the depths of its drawdown. There is therefore proportionately less remaining capital from which to generate returns going forward. This effect is difficult to overcome, as the portfolio will need to generate higher and higher returns to make up for the withdrawals that were made in the midst of the drawdown.

## Key Take-Away

While no one can predict how different asset classes will perform in the future, what is evident from the scenarios we analyzed is that drawdowns should be an important consideration when constructing portfolios for retirees, especially in the distribution phase of the portfolio lifecycle. Constructing portfolios that are intended to generate income while also minimizing drawdowns can help lengthen the productive years of an investment portfolio in distribution and increase the amounts remaining to pass on to heirs. Analysis of returns beginning in 2000 show that including trend following managed futures would have added meaningful value to a retired investor, by helping limit the depth of drawdowns during periods of market stress and improving long-run portfolio value.

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# Glossary

This glossary is intended as a reference for commonly used investment terms but does not contain all relevant terms nor all possible definitions of any individual term. You may wish to contact your investment professional for additional information. The information set forth was obtained from sources believed to be reliable, but we do not guarantee its accuracy or completeness.

**Bloomberg Barclays US Aggregate Bond Index*:** Provides a measure of the performance of the US investment grade bond market, which includes investment grade US Government bonds, investment grade corporate bonds, mortgage pass-through securities and asset-backed securities that are publicly offered for sale in the United States. The securities in the Index must have at least 1 year remaining to maturity. In addition, the securities must be denominated in US dollars and must be fixed rate, nonconvertible and taxable. Inception: 1/1976.

*Bond investments are subject to risks, including: interest rate risk, call risk, credit risk and reinvestment risk. Bonds rated below investment grade may have speculative characteristics and present additional risks.*

Performance Source: Bloomberg

**Drawdown:** The peak-to-valley decline during a specific period of an investment, fund or commodity. A drawdown is usually quoted as the percentage between the peak and the trough.

**Managed Futures:** A form of alternative investment that takes long and short positions in futures contracts, currency forward contracts, government securities, and options on futures contracts. Managed futures are operated by licensed Commodity Trading Advisors, or CTAs, who are regulated in the United States by the Commodity Futures Trading Commission and the National Futures Association, or NFA.

**S&P 500 Total Return (TR) Index*:** The 500 stocks in the S&P 500 are chosen by Standard and Poor's based on market size, industry representation, liquidity and stability. The stocks in the S&P 500 are not the 500 largest companies; rather the Index is designed to be a leading indicator of US equities and is meant to reflect the risk/return characteristics of the large cap universe. Inception: 3/1957

*US equity index investments are subject to risks, including price fluctuations in response to news on companies, industries, government policies and the general economic environment.*

Performance Source: Standard & Poor's

**SG Trend Index*:** The SG Trend Index calculates the net daily rate of return for a pool of the 10 largest (by AUM) trend-following based managed futures managers. It is equal-weighted and rebalanced and reconstituted annually. Inception: 1/2000.

*Managed futures investments are subject to risks, including illiquidity, lack of a secondary market, and the volatility of the underlying commodities or futures markets traded by a particular program.*

Source: Société Générale

**Trend Following:** A trading strategy that attempts to capture gains through the analysis of a security's momentum in a particular direction. Trend followers enter into a long position when a security is trending upward and/or enter a short position when a security is trending lower.

*It is not possible to invest directly in an index.

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