Multi-Strategy Investing with Global Alternatives

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Alternative investments provide an "alternative" to traditional stock and bond portfolios. The AlphaSimplex Global Alternatives program is a multi-strategy approach that seeks to generate capital appreciation consistent with the risk-return characteristics of a diversified portfolio of hedge funds. The Global Alternatives program is designed to achieve this by combining the broad positioning of hedge funds (or "hedge fund replication") with a range of hedge fund-style systematic trading strategies termed "alternative risk premia strategies." The hedge fund replication models use factor-based replication techniques to capture the positioning of hedge funds across and within asset classes over time. In simple terms, they provide dynamic macro exposures similar to a portfolio of hedge funds. In contrast, alternative risk premia strategies use a range of non-traditional rules-based systematic trading strategies to capture returns associated with taking on specific risks (or a "risk premium"). Over time, these strategies tend to provide lowly-correlated exposure to a variety of asset classes (both multi-asset, across equity, fixed income, currencies, and commodities, and equity long/short, in individual stocks). They achieve this by taking long and short positions across a range of liquid futures and forward contracts as well as individual stocks.

Figure 1 plots the current risk utilization in the AlphaSimplex Global Alternatives strategy between hedge fund replication and alternative risk premia strategies (including both long/short equity and multi-asset approaches). When compared with a classic hedge fund investment, this multi-strategy approach provides liquid, low fee, and transparent access to hedge fund-like returns for all investors. This paper reviews hedge fund beta replication and alternative risk premia strategies to describe how multi-strategy alternatives can be used in a traditional investment portfolio.

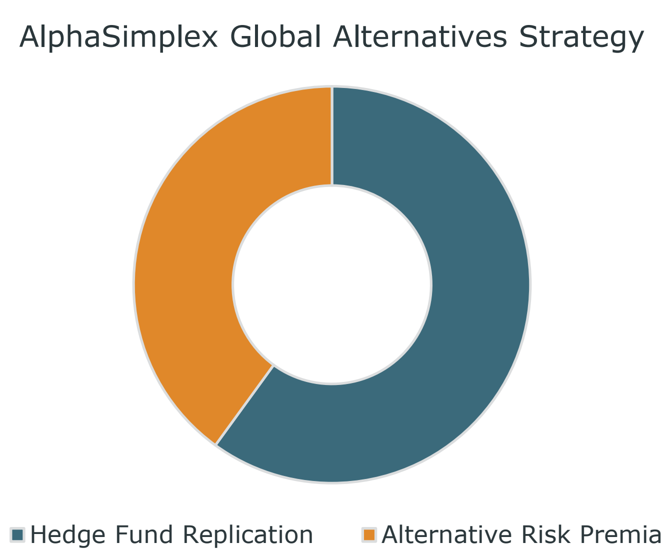

Figure 1: Risk utilization breakdown by model category for the AlphaSimplex Global Alternatives strategy. Percent of risk utilization is calculated by dividing the actual rolling three-month realized volatility of daily returns for the category by the sum of the realized volatilities of both categories. Risk utilization is expected to vary over time. Data as of May 31, 2021.

Hedge Fund Replication

Since the first hedge fund took form in the 1940s, hedge funds have from time to time seen periods of significant positive performance; this performance is sometimes off-cycle from traditional equity market returns, thereby providing differentiated returns. Hedge funds are typically offered in private often higher fee fund structures, making them less accessible to most investors. Despite the difficulty accessing these differentiated returns, the pioneering research of Hasanhodzic and Lo (2006) demonstrated that it is possible to determine the exposures of hedge funds over time, leading to the field of hedge fund replication. AlphaSimplex has spent over 20 years implementing hedge fund-like strategies, including serving as investment adviser to one of the first mutual funds to make hedge fund-like returns available to the general public.

The goal of hedge fund replication is simple; it aims to capture the "beta" of hedge funds over time. In practice, using hedge fund replication, it is possible to estimate the macro asset class exposures of hedge funds. This generally results in high correlation to hedge fund indices and hedge fund of fund indices. For example, Figure 2 plots the correlation between AlphaSimplex Hedge Fund Replication strategies and the Barclay Hedge Fund of Fund index, which has mostly been in the range of 70–85%.

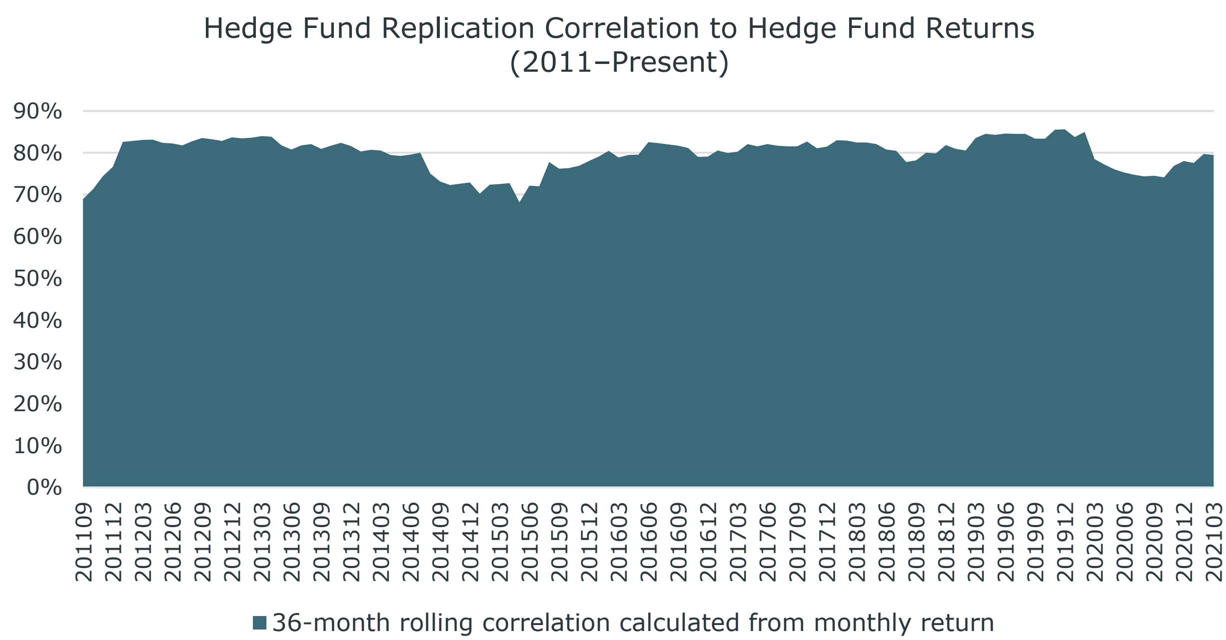

Figure 2: Rolling 36-month correlation between the AlphaSimplex Hedge Fund Replication strategies and the Barclay Hedge Fund of Funds Index, which represents the performance of a basket of multi-manager hedge fund portfolios over time. Based on monthly data from October 2008 to March 2021. Source: BarclayHedge, AlphaSimplex. Past performance is not necessarily indicative of future results.

Alternative Risk Premia Strategies: Multi-Asset and Long/Short Equity

In addition to dynamically shifting their exposures over time to different macro themes, hedge funds also employ a range of factor-like risk premia strategies. These systematic trading strategies aim to capture a reward, or "premium," for taking on some form of risk, which is "alternative" to the types of risk associated with a traditional portfolio of stocks and bonds. There are a wide variety of types of risk premia, which can be divided in a number of ways. One method of distinguishing them is to divide them by the type of assets in which they invest (e.g., multi-asset and long/short equity approaches). Multi-asset strategies tend to invest across asset classes using themes like value, carry, and momentum. Long/short equity strategies focus on the cross-section of individual companies, considering key themes like value, quality, low-risk, and momentum.

At AlphaSimplex, we combine a range of strategies across several themes we denote as: trend/momentum, carry/curve, value, event, and structural/flow premia categories.[1] These themes can include both long/short equity strategies and multi-asset strategies. For demonstrative purposes, Figure 3 provides a schematic of the strategies and asset classes currently traded in our alternative risk premia bucket.

	Long/Short Equities	Equity Futures	Fixed Income Futures	Currency Futures or Forwards	Commodity Futures
Trend/Momentum	●	●	●	●	●
Carry/Curve			●		●
Value	●			●	
Event	●	●			
Structural/Flow	●		●	●	●

● Asset class traded in the strategy

Figure 3: AlphaSimplex Global Alternatives Risk Premia Strategies across key themes: trend/momentum, carry/curve, value, event, and structural/flow premia categories. Information as of May 31, 2021. Strategies and asset classes traded are subject to change.

A multi-strategy alternative risk premia portfolio often combines a number of categories with characteristics that change over time, such as equity correlation. To demonstrate these types of approaches, we use the Bloomberg GSAM alternative risk premia indices as an example of how these strategies may work together. Figure 4 plots several styles of alternative risk

[1] For more detailed descriptions of these categories, see Appendix 1.

premia strategies both individually and combined into an index.[2] Each circle on this graph represents a thematic style group of risk premia strategies. The size of the circle is the risk-adjusted return (the Sharpe ratio). The circles are also plotted along the x-axis to represent their correlation to global equity markets. Farther left indicates lower correlation to global equities. Note that the combined portfolio of risk premia has close to zero correlation to global equity markets and better risk-adjusted returns than individual themes or styles of alternative risk premia, demonstrating the power of combining multiple styles. This illustrates how we approach the alternative risk premia sleeve of the Global Alternatives Strategy: a combination of models with different approaches may provide better risk-adjusted returns over time.

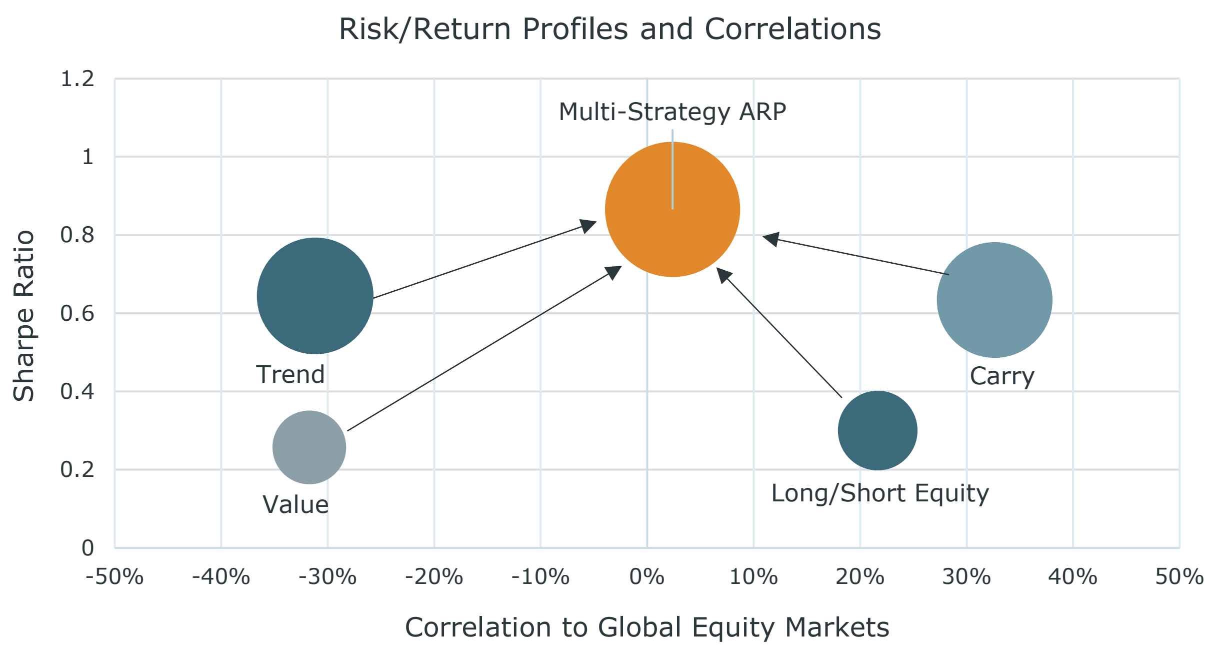

Figure 4: Alternative risk premia strategies by theme plotted versus their correlation to global equity markets and their risk-adjusted returns (Sharpe ratio). The size of the circles indicates higher risk-adjusted returns and their location on the x-axis indicates their correlation to global equity markets. This plot uses the Bloomberg GSAM Alternative Risk Premia indices as a proxy for returns and correlation is calculated relative to the MSCI World Total Return Index. For the purposes of this illustration, we assume a riskless rate of zero. Data from January 1, 2008 to March 31, 2021. Source: Bloomberg, AlphaSimplex. Past performance is not necessarily indicative of future results. It is not possible to invest directly in an index.

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[2] Similar to the schematic in Figure 3, there are a wide range of possible strategies and approaches in this category. One potential benchmark for understanding these strategies is the Goldman Sachs Cross-Asset Risk Premia Indices (GSAM). Bloomberg GSAM maintains roughly 20 individual indices to benchmark different types of alternative risk premia strategies. These 20 strategies are divided into sub-categories including micro (long/short equity) and macro (value, carry, trend). Bloomberg GSAM also tracks a portfolio of all cross-asset risk premia indices, which represents a basket of these strategies together. A schematic of the GSAM strategies is included in Appendix 2.

A Multi-Strategy Approach to Global Alternatives

To create a multi-strategy alternative solution, the AlphaSimplex Global Alternatives strategy combines hedge fund replication models with systematic alternative risk premia strategies. To demonstrate how these two approaches relate to traditional assets, Figure 5 plots the risk-adjusted returns for equity, fixed income, hedge funds, and alternative risk premia and their relative correlation to global equity markets. The size of each circle indicates the historical risk-adjusted returns and their location on the x-axis indicates the correlation to global equity markets. Note that bonds have a slightly negative correlation to equities during the period, with positive risk-adjusted returns. Alternative risk premia strategies have a low correlation to equity markets; hedge funds have lower risk-adjusted returns than equities or alternative risk premia strategies and tend to be highly correlated to global equity markets. A multi-strategy approach combines hedge fund-like returns with the low correlation of alternative risk premia strategies to provide diversification to traditional portfolios of equity and fixed income.

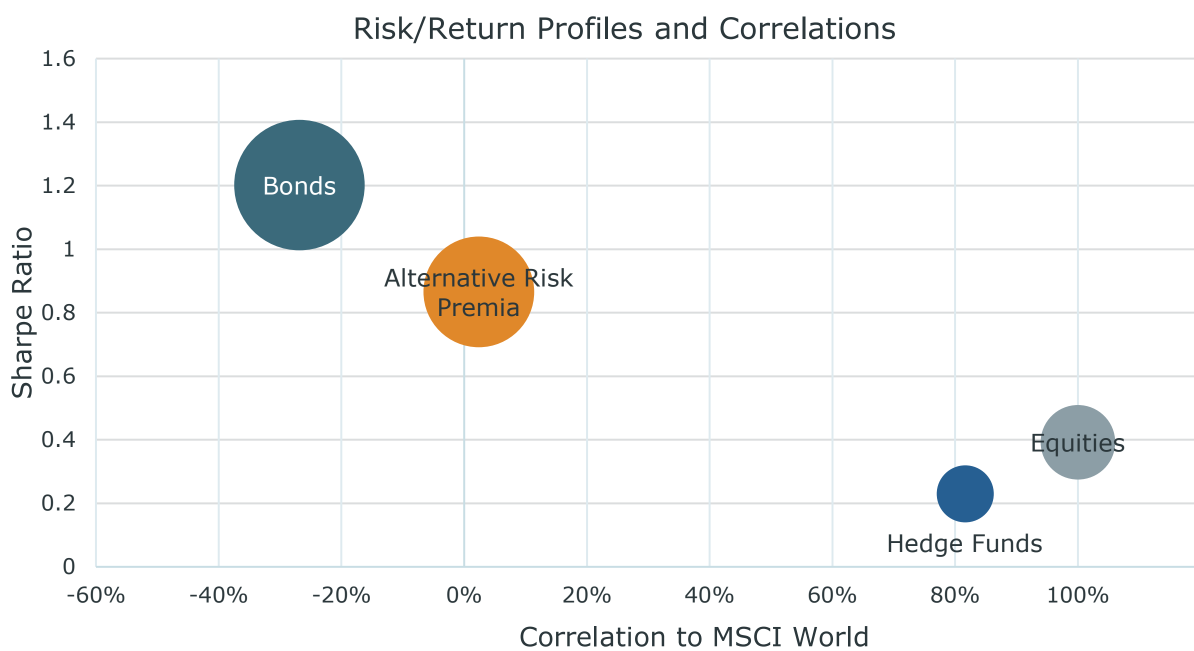


Figure 5: Alternative risk premia strategies (using the Bloomberg GSAM Cross Asset Index as a proxy), hedge funds (using the Barclay Fund of Fund Index as a proxy), equities (using the MSCI World Total Return Index as a proxy), and bonds (using the JPM Global Aggregate Bond Index as a proxy) plotted versus their correlation to global equity markets and their risk-adjusted returns (Sharpe ratio). The size of the circles indicates higher risk-adjusted returns and their location on the x-axis indicates their correlation to global equity markets (the MSCI World Total Return Index). For the purposes of this illustration, we assume a riskless rate of zero. Data from the period January 1, 2008 to March 31, 2021. Source: Bloomberg, AlphaSimplex. Past performance is not necessarily indicative of future results. It is not possible to invest directly in an index.

How to Invest in Multi-Strategy Alternatives

Diversification may be the only free lunch in finance. Adding alternatives to a portfolio can provide diversifying returns and the potential to improve risk-adjusted returns. Figure 6 plots the risk/reward tradeoff for including cross-asset alternative risk premia and hedge funds in a traditional portfolio of stocks and bonds. In this scenario, a portion of the traditional (stock/bond) portfolio exposure is replaced by alternative strategies for the period 2008 to present. During this period, a combination of stocks, bonds, and cross-asset risk premia improves the risk/reward profile of a traditional stock and bond portfolio.

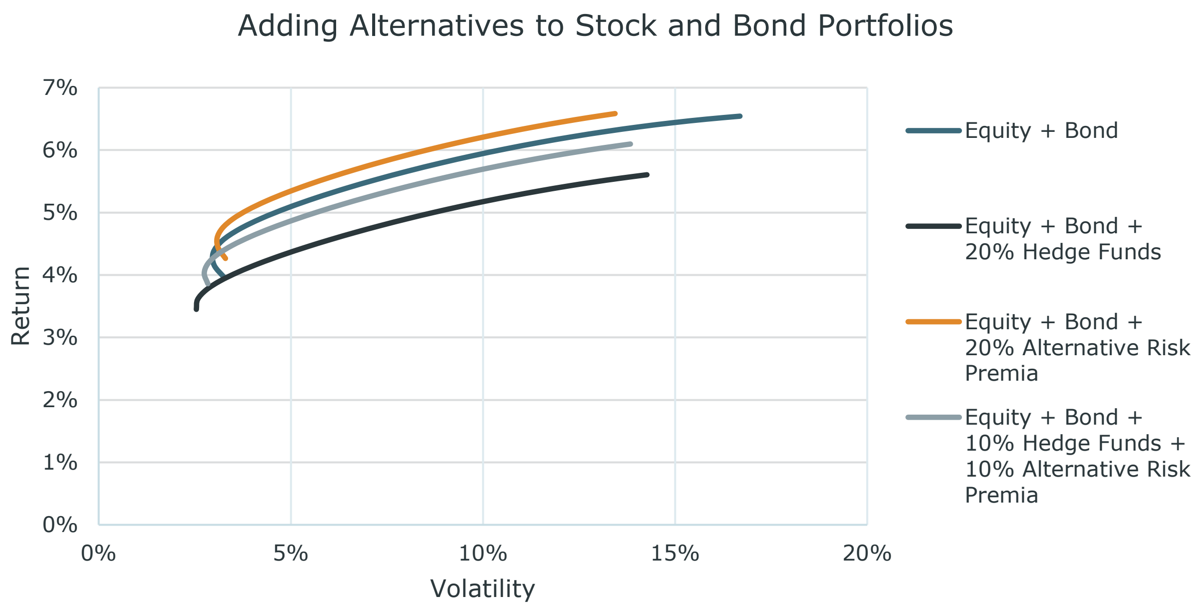


Figure 6: Return and volatility characteristics for several portfolios: stocks and bonds, stocks and bonds with 20% allocation to hedge funds, stocks and bonds with 20% allocation to alternative risk premia, and stocks and bonds with 10% allocation to hedge funds and 10% allocation to alternative risk premia. In this example, alternative risk premia is analyzed using the Bloomberg GSAM Cross Asset Index, hedge funds using the Barclay Fund of Fund Index, equity using the MSCI World Total Return Index, and bonds using the JPM Global Aggregate Bond Index. Data from January 1, 2008 to March 31, 2021, with monthly rebalancing. Source: Bloomberg, AlphaSimplex. Past performance is not necessarily indicative of future results. It is not possible to invest directly in an index.

Since 2008, equity markets have been on a great run. Bond markets have been on a great run for almost 40 years since the bond market bottom in 1981. As yields have slowly ticked down to zero and even below zero in some parts of the world, many investors have started to have concerns over the low potential for bond returns due to low yields and the threat of inflationary environments due to the impact of fiscal stimulus. To consider this scenario, we consider the same time period except consider the case where the return to bonds would be zero on average as a hypothetical case. Figure 7 plots the return and risk profile for each investment and Figure 8 plots the risk/reward tradeoff for including alternatives in the place of bonds when bonds are assumed to have zero average return with similar volatility and correlation properties.

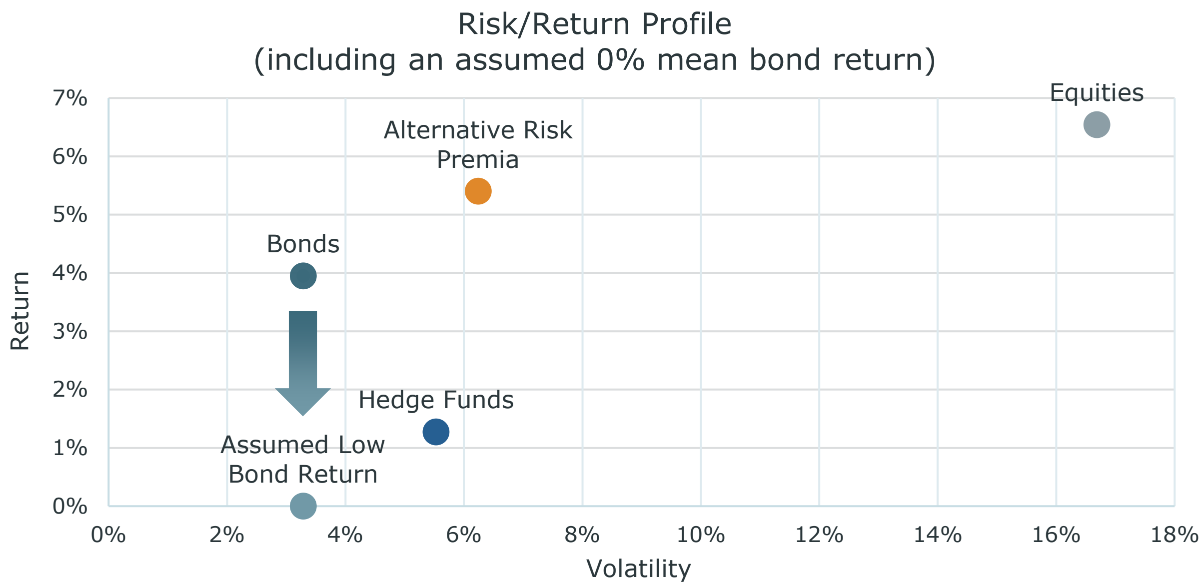


Figure 7: The risk/return profiles of stocks (MSCI World Total Return); bonds (JP Morgan Global Aggregate Bond Index); hedge funds (Barclay Hedge Fund of Funds Index); alternative risk premia (Bloomberg GSAM Cross Asset Index); and global bonds if bond returns are lower than they have traditionally been. Data from January 1, 2008 to March 31, 2021. Source: Bloomberg, AlphaSimplex. Past performance is not necessarily indicative of future results. It is not possible to invest directly in an index.

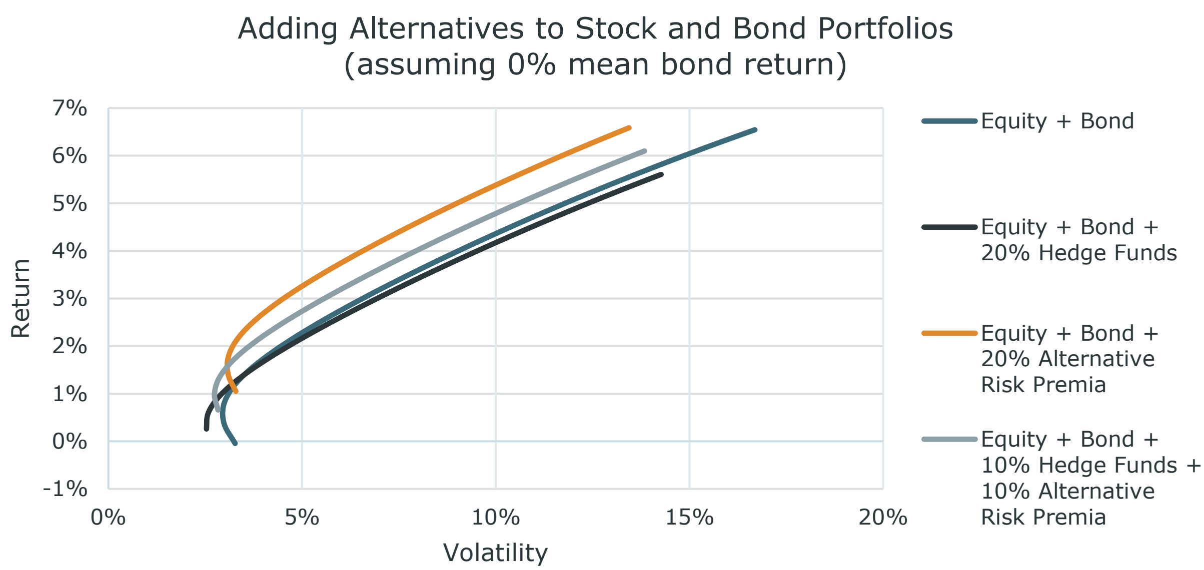


Figure 8: Assuming low bond returns where the average bond return is zero with similar correlation and volatility. Return and volatility characteristics for several portfolios: stocks and bonds, stocks and bonds with 20% allocation to hedge funds, stocks and bonds with 20% allocation to alternative risk premia, and stocks and bonds with 10% allocation to hedge funds and 10% allocation to alternative risk premia. In this example, alternative risk premia is analyzed using the Bloomberg GSAM Cross Asset Index, hedge funds using the Barclay Fund of Fund Index, equity using the MSCI World Total Return Index, and bonds using the JPM Global Aggregate Bond Index. Data from January 1, 2008 to March 31, 2021. Source: Bloomberg, AlphaSimplex. Past performance is not necessarily indicative of future results. It is not possible to invest directly in an index.

These figures imply that if we face a scenario where bonds have diminished returns, investors might do well to consider multi-strategy solutions as a potential replacement for a portion of the risk of a traditional stock and bond portfolio.

Summary

Alternative investments may provide returns with low correlation to traditional stock and bond portfolios. The AlphaSimplex Global Alternatives program is a multi-strategy approach that seeks to generate capital appreciation consistent with the risk-return characteristics of a diversified portfolio of hedge funds. The strategy seeks to achieve this by combining the broad positioning of hedge funds (or "hedge fund replication") with a range of hedge fund-style systematic trading strategies termed "alternative risk premia strategies." Adding this kind of multi-strategy approach to a traditional portfolio may provide a better overall risk/return profile, especially in a scenario where bonds have diminished returns.

Appendix 1

Description of Alternative Risk Premia categories:

Trend/Momentum: These models are designed to take advantage of the tendency for positive or negative recent performance of a given instrument or spread to continue. Trend is generally directional, while momentum may use similar signals but is cross-sectionally neutral.

Carry/Curve: These models are long high-yielding instruments and short low-yielding instruments or trade along a futures or yield curve.

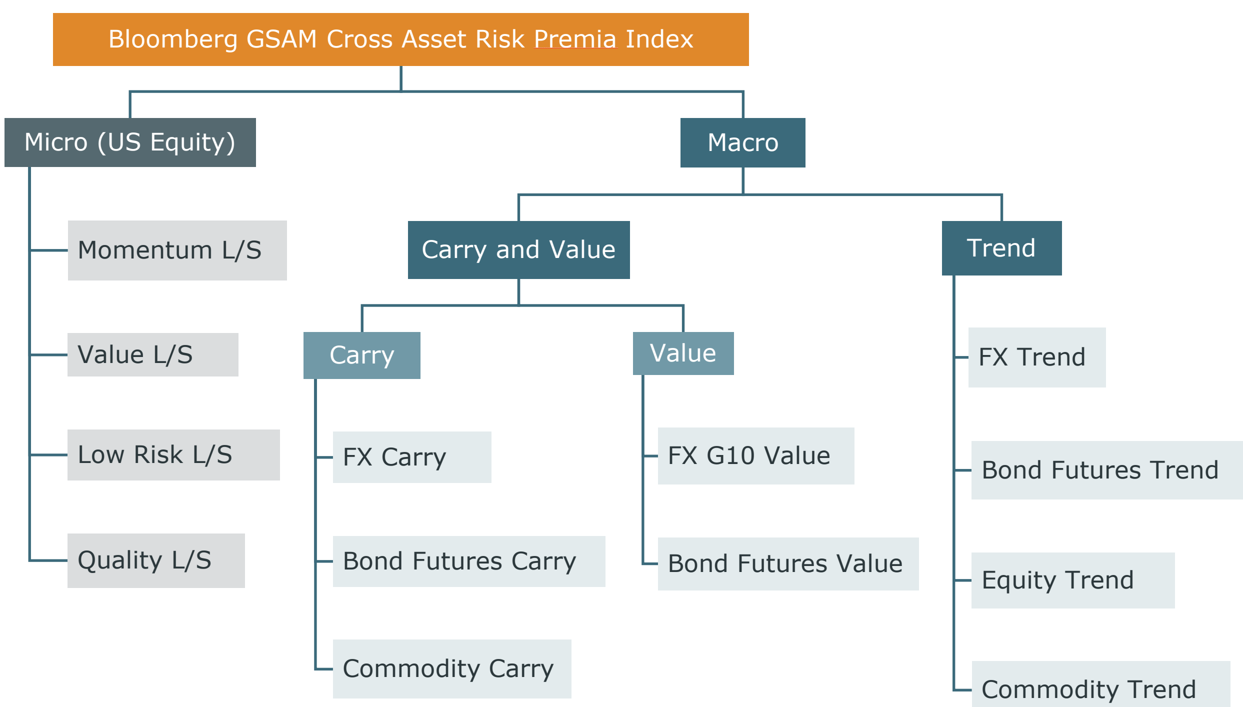
Value: These models are long "underpriced" instruments and short "overpriced" instruments.

Event: These models attempt to profit from specific events in the marketplace, such as merger arbitrage or shareholder activism.

Structural/Flow: These models attempt to profit from investor flows, investor constraints, crowdedness, and other market-positioning imbalances.

Appendix 2

Bloomberg GSAM Cross-Asset Risk Premia Index Schematic



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