Alternative Investments

Historically, both retail investors and professional money managers alike view the investment universe to be comprised of stocks and bonds. Over the course of the past few decades, a third asset class has emerged as a material component to this universe: Alternative Investments (a.k.a. Alternative Assets) Broadly speaking, alternative investments have risk and return traits that differ vastly from those of traditional stock and bond investments.

At the TS Prosperity Group, Alternative Investments are used to reduce a client's overall portfolio risk through greater diversification of investment risk. This reduces the overall exposure of a client's investment portfolio to "market risk" which comes with being invested in the more liquid/public markets (i.e. stock market).

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Market risk (also known as systematic or undiversifiable risk) is the risk inherent to investing in the market in general and can be materialized through changes in government policy, international economic forces, or acts of nature. Such changes can incite investors to irrationally move money into or out of an investment, thereby causing a change in investment value that is potentially greater than the change in intrinsic value of the underlying asset.

While this risk may be more prevalent in the public stock market, many Alternative Investment classes have less liquidity and require longer holding periods. Thus investors have to invest from a more fundamental based approach, much different than the technical approach observed in public equities today.

This type of risk is both unpredictable and impossible to completely avoid. It cannot be mitigated through diversification, only through hedging or by using the right asset allocation strategy. While investing in a traditional portfolio of stocks and bonds can help reduce the effect of systematic risk born from changes in interest rates, inflation, recessions, etc., Alternative Investments can further lower portfolio correlation and buffer portfolio losses during such unfavorable economic cycles.

The Great Recession (2008-09) provides a prime example of systematic risk. While all portfolios were affected in some manner or another, a portfolio that incorporated a responsible allocation to Alternative Investments would have exhibited more favorable returns than a portfolio with a heavy allocation to stocks.

Many of the characteristics of Alternative Investments can be seen as posing a risk, but often these characteristics are what provide the opportunity for improved returns, and with effort the risks can be mitigated or managed. Some characteristics of

Alternative Investments may include:

- *Low correlation with traditional financial investments such as stocks and bonds*
- *Difficulty in determining the current 'market' value of the asset*
- *Relative illiquidity*
- *High transaction costs*
- *Limited historical risk and return data*
- *Heightened degree of necessary due diligence*

The alternative investment universe is comprised of a multitude of different products and strategies. Investors may seek investment in alternatives for risk diversification, greater active management skill, access to exclusive investment opportunities, or all of the above. Investors may also perceive specific subclasses within the alternative asset class to be informationally less efficient, offering greater potential for outperformance through superior skill and information.

The major subclasses within the alternative asset class are real estate, commodities, private equity, hedge funds, and managed futures. There are other alternative investments that may not fit nicely into these five subclasses, but these largely cover the spectrum of alternative assets.

Real Estate

Real estate can be defined as property comprised of land, land improvements (i.e. buildings), and the natural resources of the land. The two avenues to investing in real estate are direct and indirect investments.

Direct investments are when the investor directly invests his/her own capital into residential property, commercial property, or agricultural land (such as timberland and farmland). While direct investments allow for direct control over the property, its high requirements of capital expenditures, time, and expertise make for high barriers to entry for the average investor.

Indirect investments in real estate include investing in companies or funds engaged in real estate ownership, development, or management such as the following:

- *REOCs: real estate operating companies*
- *REITS: publicly traded equities representing pooled investments in real estate properties or debt*

[1]According to DALBAR's 22nd Annual Quantitative Analysis of Investor Behavior, 2016 edition.

- *Comingled real estate funds: professionally managed vehicles for a pooled investment in real estate properties*
- *Infrastructure funds: funds making private investments in public infrastructure projects (roads, tunnels, schools, hospitals, etc.) in return for rights to specified revenue streams*

Given the high capital requirements and time commitment associated with direct investment in real estate, indirect investments tend to be the more widely used avenue to real estate investing for typical investors. REITs permit smaller investors to gain real estate exposure and allow investors to obtain a professionally managed portfolio of diversified real estate interests with a relatively small outlay. REITs are also favored among income investors for their favorable dividend payment to investors. Most REITS pay out over 90 percent of retained earnings to investors in order to maintain favorable tax treatment.

There are several factors affecting the value of real estate investments. One of the most prominent factors is interest rates, which affect financing costs, employment levels, savings habits, and the supply and demand for mortgage financing. Other variables affecting real estate values include location, tenant stability and attractiveness, specialization, population growth, and demographic shifts.

One unique trait of real estate is it has both equity and bond-like features. With real estate, investors have the ability to realize capital gains by selling properties at values higher than their purchase price (equity-like) while also being able to collect periodic payments in the form of rental income (bond-like). On average, real estate returns have exhibited low volatility in comparison with returns of public stock market equities.

Given the low volatility of returns and its stock and bond-like features, real estate has historically been a beneficial diversifier within a portfolio. Since real estate values tend to be unaffected by short term economic changes (unlike stocks and bonds), relative to most stock and bond portfolios, the real estate subclass has a low correlation, lower standard deviation of returns, and higher risk adjusted returns. Furthermore, it has been viewed by many as a potential inflation hedge.

It is worth noting that while REITs provide some diversification benefits relative to stock/bond portfolios, it has been relatively less effective in that role than direct investment in real estate or investments in REOCs. This is partially due to the fact that REITs are traded on the public market and priced daily, which enables prices to move in levels that exceed the changes in the intrinsic value of the REIT.

Commodities

A commodity is a hard asset, typically homogenous in nature. Examples of commodities include energy (crude oil, natural gas, refined petroleum products), industrial metals, grains, livestock, precious metals, and soft goods (coffee, cotton, sugar, cocoa).

Like real estate, investments in commodities can be made either directly or indirectly. Direct investments involve a cash market purchase of a physical commodity or exposure to changes in spot market values via derivatives (forwards and futures contracts). These derivatives contracts can end in physical delivery of the underlying commodity or in a cash settlement in which the investor on the profitable side of the trade receives the net difference between their investment value and their counterparty's investment value as a cash payment. Indirect investments include the acquisition of indirect claims on commodities, such as equity exposure in companies specializing in commodity production.

There are several indices that attempt to track changes in commodity values. The most notable include the Dow Jones-AIG commodity index (DJ-AIGCI), the S&P Commodity Index (SPCI), and the Goldman Sachs Commodity Index (GSCI).

With some consistency, commodities have tended to have correlations with equities and bonds that

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are unusually low even in the realm of alternative investments. However, risk characteristics of commodities are more nuanced than simple correlation statistics can reveal and indicate several attractive features of commodities. In particular, the prices of commodities tend to rise in periods of financial and economic distress. This provides a potentially valuable diversification to a portfolio in troublesome economic times. This ability to mitigate the total correlation of a portfolio reduces the volatility of returns and can provide a more stable portfolio return across economic environments when paired with traditional stock and bond investments.

This price behavior can provide a particularly attractive diversification advantage to stock and bond investments during periods of unexpected changes in inflation. Commodities correlate positively with inflation, whereas traditional stocks and bonds tend to negatively correlate. To the degree inflation is already fully anticipated and incorporated into the yield structure of bonds and the cash flow of companies, the economy may have periods of high commodity prices or price increases with positive stock and bond returns. While this is not to be expected as the norm, it does further highlight the potential benefits to adding commodities to a traditional portfolio.

Unlike most investment classes, a direct investment in commodities does not generate cash flow; an inventory of gold, lumber, or oil can only generate a return to an investor to the extent their price appreciates. For this reason, while commodities might play an important role, they should typical constitute a relatively small allocation in an investor's portfolio.

Private Equity

Private equity refers to any security by which equity capital is raised via a private placement rather than a public offering. Investing in private equity, similar to investing in real estate, can be done directly or indirectly. With direct investment, any person can invest in a private business either by investing their own capital into starting their own business or by investing in someone else's business, regardless of the investor's net worth. Indirect private equity involves investing in a professionally managed private equity fund. These funds are not always required to register with regulatory bodies and are thus only available to institutions and high net worth investors. While direct investment is open to everyone, indirect investment in private equity is more widely used as a means to invest in private companies. The indirect method will be the focus of the private equity discussion.

A private equity fund is a pooled investment vehicle through which many investors commit capital to the fund's management to invest in generally highly illiquid assets.

By nature, private and public equity investments have some common elements, but private equity (especially direct investment) often calls on an investor's skills as a businessperson to generate excess returns. The two primary spheres of activity within private equity are venture capital and buyout funds.

Venture capital firms engage with companies from formative-stage companies (start up to early production stage) to expansion stage (young companies needing financing to expand sales) to middle market firms preparing for an IPO. Venture capitalists aim to supply two key resources for companies in which they invest in. The first is that they provide valuable assistance to transitioning a company's management to the next level, as founders often lack professional managerial experience necessary to manage their enterprise after reaching a certain point. Second, they provide adequate capital for growth or even sustaining

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operations (as these companies often lack the ability to internally generate the necessary cash).

Subgroups of buyout funds include mega-cap buyout funds and middle-market buy-out funds. Mega-cap buy-outs specialize in taking public companies private whereas middle-market buyout funds purchase smaller private companies whose revenues and profits are too small to access capital from the public equity markets.

Both venture capital funds and buyout funds share similar traits in the eyes of their investors. They are usually structured as limited partnerships with expected lives of 7-10 years. Investors are limited partners within the fund who "commit" a certain amount of capital to be called upon by fund management as investment opportunities arise. Since investors are only limited partners, their risk of loss is limited only to the amount of their invested capital. Funds typically charge an annual management fee of 1.5-2.5% of committed capital. As profits arise from successful investments, investors split the profits less the manager's take, or "carried interest" (usually around 20% of the profits). This can result in above average returns to investors (typically between 10-30% annualized).

Venture capital and buyout funds aim to generate profits in different ways. Direct venture capital investments typically are structured as convertible preferred shares rather than common equity. The terms of their investments usually require the corporation pay cash equal to some multiple (ex/ 2x) of the preferred shareholders' original investment before any cash can be paid on common stock (equity of founders). This structure mitigates risk that the company will take on further venture capital funding and distribute it to owners/founders

Buyout funds aim to profit by adding value by restructuring operations, improving management, opportunistically identifying and executing purchase of companies at a discount to their intrinsic value, and capturing any gain from either taking on debt or restructuring existing debt.

Common traits of private equity include illiquidity, long term capital commitments, higher risk in comparison to a seasoned public equity investment, and high expected returns.

Private equity tends to have a moderately high correlation of returns with publicly traded equities. All types of businesses have exposure to economic and industry conditions, so correlations between public and private equity are typically positive. Buyout funds tend to bear more company-specific risk, whereas venture capital funds' returns can be dependent on the health of the public equity market (as this is often an exit strategy for investments made by the fund).

While private equity has the ability to play a moderate role as a risk diversifier (depending on the geographic, sector, or approach focus of the fund), this asset subclass is typically sought after as a long term return enhancer rather than a risk diversifier.

Hedge Funds

Similar to private equity, a hedge fund is a pooled fund that can employ numerous strategies to earn a positive risk adjusted return (alpha) to its investors. They are typically private funds and, like private equity, are only available to institutional and high net worth investors. Fees exceed typical mutual fund fees, with a management fees ranging from 1-2 percent and performance fees typically around 15-25 percent. Because the hedge fund universe is so expansive, this section will discuss the different styles and types of investment strategies that hedge funds tend to employ.

It is important to note that, while not uncommon for these strategies to be employed by a private fund, these strategies are not limited to hedge funds and are often found in publicly traded vehicles open to the everyday investor.

Popular hedge fund strategies are as follows:

- *Equity Market Neutral (aka Long/Short) – This strategy attempts to identify overvalued and undervalued securities while neutralizing a portfolio's exposure to market risk by combining long and short positions of roughly equal exposure to the related market or sector factors. The manager will make specific bets due to their convictions of the underlying investment's future performance. Market risk is minimal as positions tend to offset each*

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other so long as they are related positions (i.e. the long and short positions are in similar geographic regions, sectors, or investment style). Portfolios are constructed to be market, industry, sector or dollar neutral. This strategy offers flexibility to take long and short positions without regard to the underlying investments' weights in any benchmark and allow for profit due to mispricing relative to intrinsic value.

- *Fixed Income Arbitrage – Management looks to identify overvalued and undervalued fixed income securities primarily on the basis of expectations of changes in term structure of interest rates or credit quality.*
- *Distressed Securities – investors invest in both debt and equity of companies that are in or near bankruptcy. Most funds of this style are long only since short sales of these securities are difficult due to relative illiquidity of the distressed debt and equity.*
- *Merger Arbitrage – The strategy aims to capture price spread between current market prices of corporate securities and their value upon successful completion of a takeover, merger, spin-off, or similar transaction involving more than one company.*
- *Global Macro – This approach attempts to take advantage of systematic moves in major financial and nonfinancial markets through trading currencies, futures, and options contracts although they may also take major positions in traditional equity and bond markets. This strategy differs from the aforementioned strategies in that it concentrates on major market trends rather than on individual security opportunities. Use of derivatives with this strategy is commonplace.*
- *Emerging markets – the focus of this strategy is on investments of securities of entities in emerging or less mature markets. This strategy tends to be long-only as the use of short selling or options are often not permitted or unavailable due to the immaturity of the markets.*
- *Fund of Funds – The fund invests in a number of underlying hedge funds (typically 10-30).*

Of the aforementioned strategies, the most commonly applied within the capital markets are equity market neutral, hedged equity, merger arbitrage, and global macro.

Hedge funds as an asset class are viewed as absolute return vehicles (investments with no direct benchmark portfolios). Given the variety of strategies, the use in a portfolio is dependent on both the strategy employed and the relative market conditions that affect the strategy. For example, credit-sensitive strategies, such as distressed securities, will have returns correlated with similar factors, such as high-yield debt returns.

Overall, hedge funds offer less diversification than many relative-value strategies (such as market neutral strategies) and can be seen as return enhancers rather than risk diversifiers This is especially true for long-biased strategies.

The previously listed strategies are skill-based investment strategies, meaning returns are obtained primarily from the firm's competitive advantage in information and interpretation. To the extent the strategy's returns are derived primarily from an individual manager's skill or superior depth of information, its returns may potentially be uncorrelated or weakly correlated with the long term returns of the traditional stock and bond markets.

The bottom line with these types of alternative strategies is that there is no hard-and-fast rule for the usefulness of hedge funds or their strategies. It is imperative that an investor or wealth manager conduct thorough analysis of the underlying factors used in these trading strategies. The investor's economic forecast and market expectations will be crucial elements of the decision making process when deciding which strategy to include in a traditional portfolio.

Managed Futures

Managed futures are a pooled investment vehicle that can invest in cash, spot, and derivative markets for the benefit of their investors. They have the ability to use

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leverage in a wide variety of trading strategies. They are actively managed and often structured as limited partnerships open only to accredited investors.

A primary distinguishing factor between hedge funds and managed futures is that, for the most part, managed futures trade exclusively in derivative markets (future, forward, or option markets) whereas hedge funds tend to be more active in spot (cash) markets while using the futures markets for hedging purposes. Hedge funds trade in individual securities and concentrate on inefficiencies at the micro level (company-specific). Managed futures funds, on the other hand trade primarily market-based futures and options contracts on broader or more generic baskets of assets and look for return opportunities in macro (index) stock and bond markets. Managed futures are often referred to as separately managed accounts, referred to as "CTA Managed Accounts" or "CTA's" for short. They are run by a general partner known as a commodity pool operator (CPO) who is, or has hired, a professional commodity trading advisor to manage the money in the pool.

Managed futures strategies are similar to hedge fund trading strategies in that they are skill-based strategies they obtain returns from the unique skill or strategy of the trader.

The main types of managed futures strategies are as follows:

- *Systematic Trading Strategies - These strategies primarily trade according to a rule-based trading model usually based on past prices. Most systematic funds invest using a trend-following program, although some trade according to a contrarian program. Trend following strategies may concentrate on short-term, middle-term, or long-term trends (or combo of the three).*
- *Discretionary Trading Strategies – These trade financial, currency, and commodity futures and options. They are discretionary models that trade based on fundamental economic data and on trader beliefs.*
- *Financial – Trades include financial futures/options, currency futures/options, and forward contracts.*
- *Currency – Trading includes currency futures/options and forward contracts*

Derivative markets are zero-sum games (they reallocate uncertain cash flows among market participants without enhancing aggregate cash flows in any way). As a result, long-term aggregate return to passively managed, unleveraged futures position should be the risk-free return on invested capital fewer management fees and transaction costs

For derivative-based strategies like managed futures to produce excess returns, on average, there must be a sufficient number of hedgers or other market participants who systematically earn less than the risk-free rate. To profit in this context, the managed futures trader must be on the winning side of the zero-sum transaction repetitively over time.

Since it is easy for futures traders to take short positions, traders can attempt to earn positive excess returns in falling as well as rising markets. In fact, some of most impressive periods of return for managed futures have been during periods of poor performance in equity markets.

In general, correlations among managed futures strategies appear to be influenced by the degree

[1]According to DALBAR's 22nd Annual Quantitative Analysis of Investor Behavior, 2016 edition.

to which the strategies are trend-following or discretionary. Overall dollar-weighted and equal-weighted indices are highly correlated with diversified, financial, and trend-following strategies and distinctly less correlated with currency and discretionary strategies.

Overall, managed futures appear to be useful in diversifying risk even in a diversified portfolio of stocks, bonds and hedge fund strategies. Its impact is somewhat investment-vehicle dependent and, to some extent, time-period and strategy dependent.

Conclusion

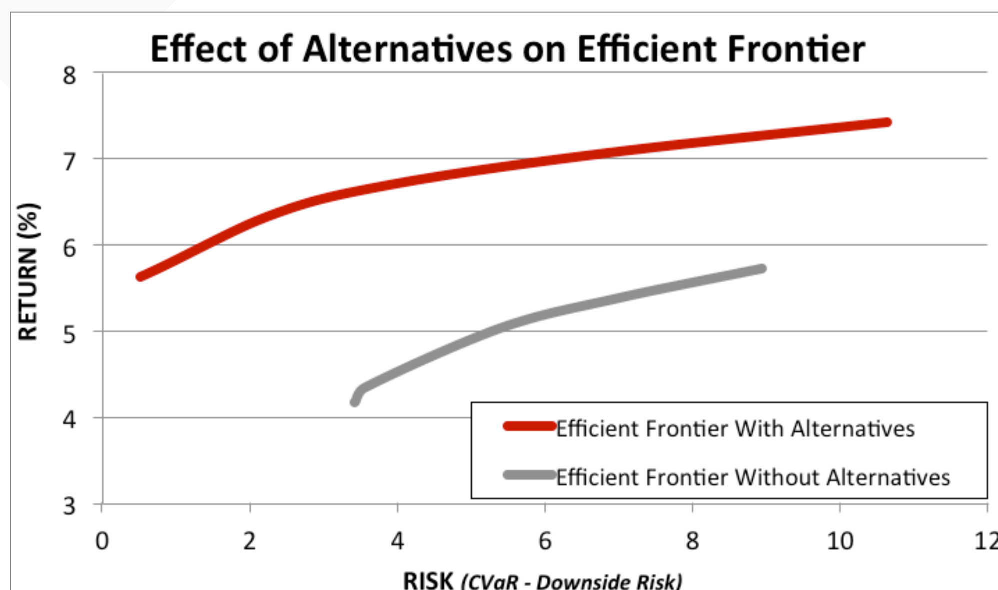
Perhaps the most pronounced effect of alternatives on a portfolio can be demonstrated visually via the Efficient Frontier. The red line is the efficient frontier of TS Prosperity Group's core portfolios. These portfolios not only include a variety of fixed income and equity asset classes, but also alternative asset classes such as private real estate, equity REITS, long/short option funds, and market neutral strategies. The gray line is a "traditional" efficient frontier of portfolios comprised only of TS Prosperity Group's investible equity and fixed income asset classes, used as a proxy to mimic what the majority of the investment management industry only uses.

Upon examining the differences of the efficient frontiers, the frontier with alternatives outperforms the frontier without alternatives in all risk scenarios. This shift illustrates both the return augmentation and the risk mitigation effects that alternative assets can have in a traditional portfolio.

When incorporated into a portfolio, alternatives serve a number of roles:

- *Provide exposure to risk factors not easily accessible through traditional stock or bond investments.*
- *Lower portfolio correlation and buffer portfolio losses during unfavorable economic cycles.*
- *Provide exposure to specialized investment strategies run by managers unattainable by many individual investors.*

Alternatives can provide benefits to a traditional portfolio to fit almost any objective, whether it be return enhancement or risk diversification. If used prudently, alternatives can prove incredibly effective in diversifying risk and lowering overall portfolio correlation. The end result will be a portfolio that is not entirely dependent on the performance of the stock and bond markets, making the portfolio much more resilient throughout the varying economic cycles. This effect is even more compelling in environments such as today in which both stocks and bonds are trading at expensive valuations relative to historic performance. If this is accomplished, returns can be much more stable and predictable which translates to more peace of mind for the average investor.



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