

MVCM White Paper Series

Outcome-Oriented Thinking



UNDERSTANDING ALTERNATIVE ASSETS

Introduction

The role of alternative assets in modern investment portfolios is a subject of much study and debate among investment professionals. Individual investors, foundations and other investment institutions need to be aware of the evolution of this investment category and the scope and depth of alternative vehicles through which to obtain alternative asset exposure. That is the purpose of this research paper.

Defining Alternative Assets

We define “alternative assets” as follows: (a) assets whose fundamental intrinsic properties are different from those of traditional equity and fixed income securities, and/or (b) poolings of assets – which poolings may include traditional equity and fixed income securities – such that the return-risk-correlation characteristics of the pooled assets are distinct from those of traditional debt or equity pooled vehicles.

A practical illustration of an alternative asset under the definition of (a) above is a commodity futures contract. The futures contract represents an obligation to take delivery of an underlying store of value (be that soybeans, heating oil or Japanese yen) at a specified point in the future. The intrinsic value of a futures contract derives from the perceived market value of the underlying asset, the value of the collateral backing the futures contract (usually US Treasury bonds or TIPS) and the price relationship between the futures market and the spot market (i.e. backwardation or contango).

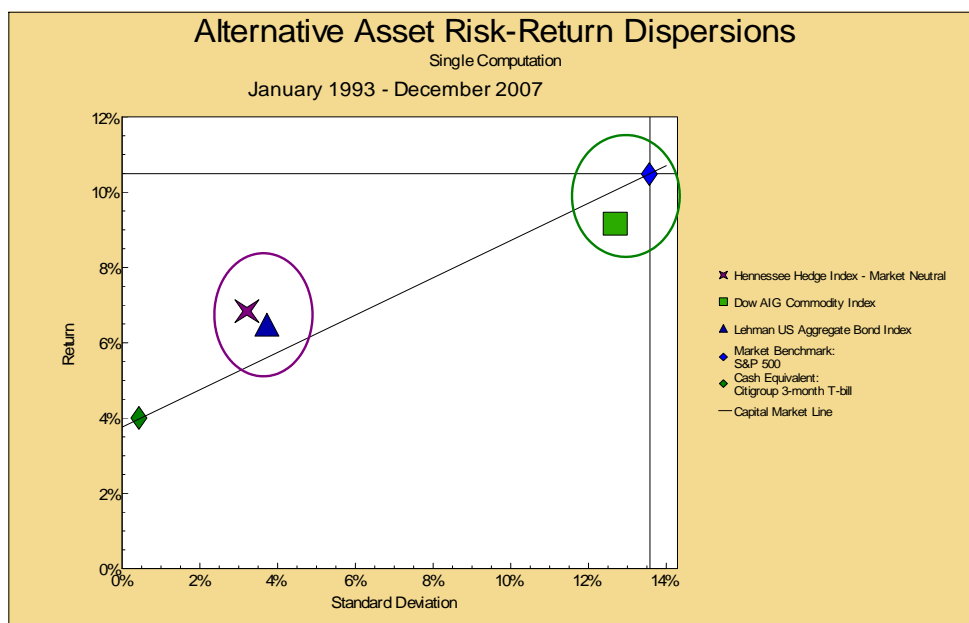
An alternative asset is intrinsically different from equity and fixed income in that *its value relates to something other than a specific claim on the assets of an issuing entity*. A

fixed income obligation is a contractual, legally binding claim from a creditor to the claim's issuer to pay a specified amount of principal and interest income at defined points in time. A common share of stock is a residual claim on the assets of a company after satisfying all precedent senior and subordinated debt and preferred stock claims.

When assets are combined into pooled vehicles they may continue to collectively exhibit the characteristics of the underlying assets comprising the pool – for example long-only mutual funds invested in large cap stocks or investment grade corporate bonds – or they may be constructed in a way to have very little in common with the properties of any of the underlying assets. Long-short equity or convertible arbitrage funds are examples of this and fall under the definition of “alternative assets” provided in (b) above. For example a pooled investment vehicle comprised entirely of long positions in stocks with an average price/book value under 2.0 would be considered an equity investment. However another pooled investment vehicle with 48% comprised of short positions in three industry sectors, with long positions in the same three industry sectors comprising the remaining 52%, would be considered an alternative investment even though 100% of the portfolio is made up of equities. Over time it would exhibit fundamentally different risk-return-correlation characteristics when compared to the long-only value portfolio.

Investment Characteristics of Alternative Assets

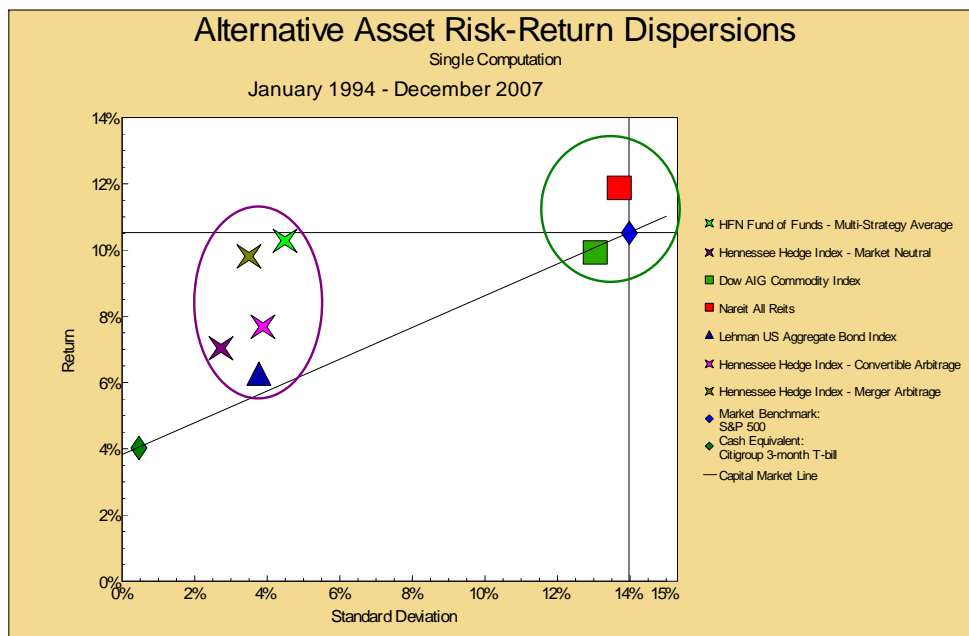
Having defined alternative assets we now turn to their use in a portfolio from the standpoint of return, risk and correlation contribution. Consider the following chart. This shows the performance of four market indices (plus the cash equivalent return) over a 14 year period from 1993 – 2007: the S&P 500, representing equities, the Lehman US Aggregate Bond Index representing fixed income, and two alternative asset indices: the Dow AIG Commodities Index and the Hennessee Hedge Index –Market Neutral.



Source: Zephyr & Associates LLC

The distinctive feature of this chart is the close positioning of the market neutral index and the commodities index, respectively, to the Lehman Aggregate and the S&P 500. Bearing in mind that the period shown is appropriately long-term, we infer that *one of the key distinguishing features of alternative assets is that some are low-volatility while others are inherently riskier* (risk here being expressed conventionally as standard deviation).

In other words, from a risk-adjusted standpoint certain alternative assets look more like bonds while others look more like stocks. The following chart provides further evidence of this distinction:



Source: Zephyr & Associates LLC

In this expanded example the world of alternative assets deconstructs neatly into two subcategories. On one side are commodities and real estate investment trusts (REITS) that have equity-like volatility. On the other side are the so-called hedge asset classes that employ sophisticated strategies aimed at reducing overall volatility while seeking targeted absolute returns. For example *equity market neutral* is a strategy whose objective is to use long and short stock positions to achieve very low correlation with the market. *Convertible arbitrage* aims to exploit inefficiencies in the pricing between convertible bonds and their underlying stocks, e.g. by going long the bond and shorting the stocks into which the bond is convertible. *Merger arbitrage* is a strategy that takes long and short positions in the target and acquiring stocks in potential or announced mergers & acquisitions. *Multi-strategy* is a so-called fund-of-funds approach: a single pooled vehicle that manages exposures in a variety of single-strategy funds.

In addition to the risk-return properties though there is another consideration: the *correlation* between these different alternative asset classes and their equity & fixed income counterparts. Correlation is the third of the three principal investment characteristics we consider in evaluating portfolios, after expected return and risk. The following chart depicts the pairwise correlations between the asset classes shown in the previous chart:

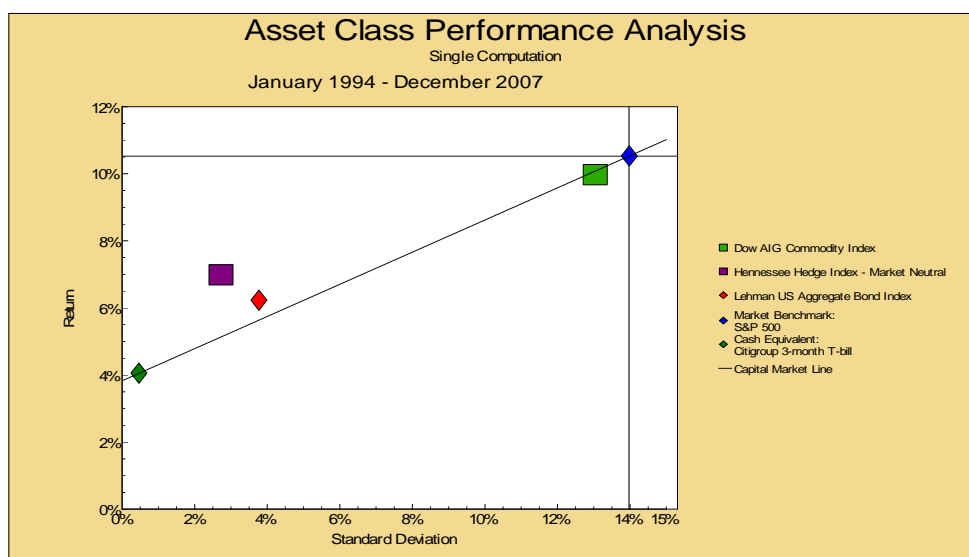
Correlation Matrix								
January 1994 - December 2007								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1) Lehman US Aggregate Bond Index	1.00							
2) HFN Fund of Funds - Multi-Strategy Average	0.07	1.00						
3) Hennessee Hedge Index - Market Neutral	0.22	0.34	1.00					
4) Hennessee Hedge Index - Convertible Arbitrage	0.08	0.57	0.21	1.00				
5) Hennessee Hedge Index - Merger Arbitrage	-0.03	0.65	0.26	0.47	1.00			
6) Dow AIG Commodity Index	0.01	0.32	0.06	0.08	0.18	1.00		
7) Nareit All Reits	0.10	0.25	0.13	0.10	0.35	0.10	1.00	
8) S&P 500	0.02	0.48	0.06	0.26	0.56	0.11	0.34	1.00

Source: Zephyr & Associates Style Advisor

This chart shows the desirable low pairwise correlations that permeate throughout this combination. The highest correlation exists (0.65) between the HFN Fund of Funds Multi-Strategy and the Hennessee Merger Arbitrage Index – not surprising given that merger arbitrage is one of the strategies employed in a hedge multi-strategy approach.

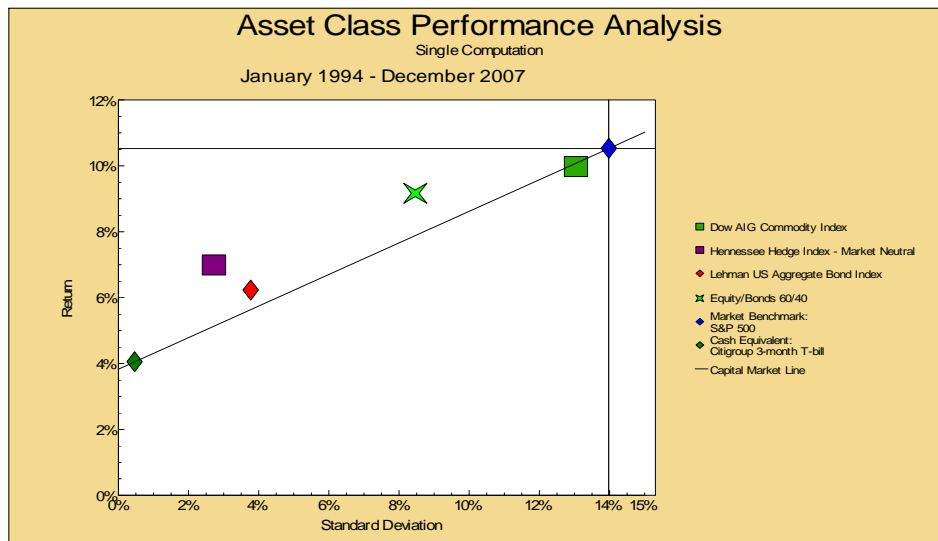
The Alternative Allocation Decision

Based on the above discussion a potential solution appears as to how to make asset allocation decisions incorporating alternative assets. Starting from the standpoint of a traditional split between debt and equity (e.g. 80/20 or 65/35) a logical approach could be to allocate a portion of the original target equity weight to higher volatility alternatives (mainly commodities and REITS) while allocating a portion of fixed income exposure to lower volatility alternative classes. In the following chart we provide an illustration of this.



Source: Zephyr & Associates LLC

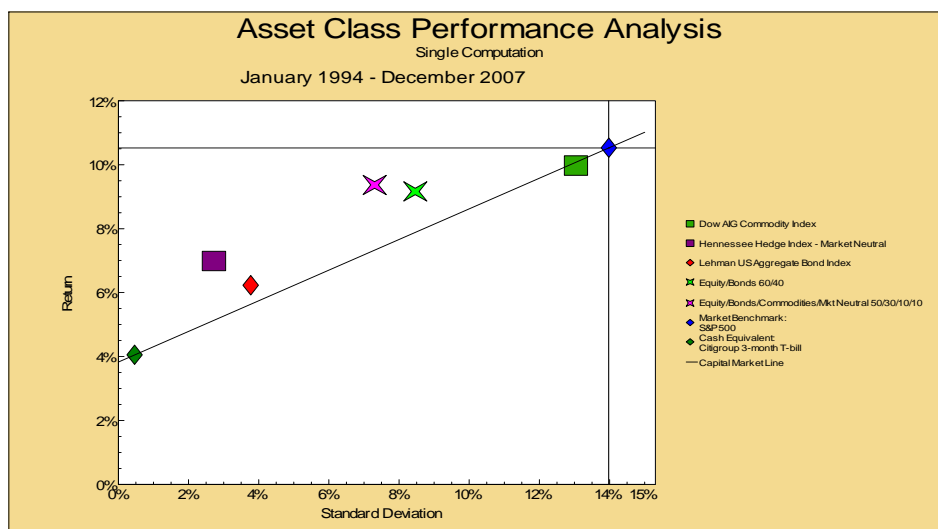
The chart above shows the risk-return performance of equities (S&P 500), bonds (Lehman US Aggregate), commodities (Dow AIG Commodities) and equity market neutral (Hennessee Market Neutral) from 1994 – 2007. Based on this a traditional 60/40 blend of equities and bonds would look as follows:



Source: Zephyr & Associates LLC

Note: blends based on exposures to respective market indices and are not reflective of actual portfolio performance. Indices are not directly investable and do not reflect customary fees and expenses applicable to investment portfolios. Past performance is not a reliable indicator of future returns.

By adding a 10% exposure each to commodities and market neutral for this period we achieve improved positioning in both return and risk as the chart below shows:



Source: Zephyr & Associates LLC

Note: blends based on exposures to respective market indices and are not reflective of actual portfolio performance. Indices are not directly investable and do not reflect customary fees and expenses applicable to investment portfolios. Past performance is not a reliable indicator of future returns.

The inclusion of low and high volatility alternatives in the example above adds 20 basis points of annual average return (from 9.19% to 9.39%) and reduces risk by 115 basis points, from 8.46% to 7.31%. The reason for this has to do with the low correlation properties illustrated above. In a sense, investment portfolios are like the Petri dish used by biologists to study microorganisms. When a new element is added to the mix two things happen. First, the new element has its own intrinsic properties (its own risk and return characteristics in the case of investment assets) and contributes these intrinsic properties to the performance outcome. Second, the new asset interacts with the other assets in the mix (based on their correlation characteristics) and emergent properties arise from this interaction. These emergent properties also contribute to the outcome.

At MVCM we call return, risk and correlation the “DNA” of investment management, and this example here illustrates why it is such an important part of our approach.

The Asset Selection Decision

For high volatility alternative assets we have access to a mix of mutual funds, private managers, exchange-traded funds, and exchange-traded notes – a structured product variation of exchange traded funds. At present we feel comfortable with the process of continuing to manage these exposures in the context of our regular due diligence, monitoring and evaluation loop.

The inclusion of low volatility alternatives presents a new challenge. In addition to mutual funds and private money managers engaged in the low volatility hedge strategies – of which the major classes are multi-strategy, market neutral, long-short, convertible arbitrage, event-driven, global macro, distressed securities and fixed income arbitrage – the large preponderance of pooled investment offerings covering these strategies is in the form of hedge funds.

Hedge funds are different from these other pooled structures for several reasons: (a) they are by and large not SEC-registered vehicles and thus only suitable for certain types of investors, and (b) their cost structure is markedly different from that of “traditional” vehicles. Registered vehicles like mutual funds and private money management funds typically charge an annual management & expense fee that, while differing according to a number of fund-specific criteria, tend to average somewhere higher or lower than 1% of total assets under management.

The standard formula for hedge funds is a 2% annual management/expense fee and a 20% performance fee. The performance fee is a distribution of the profits earned by the hedge fund, usually after clearing a minimum “hurdle rate”, with all profits above the hurdle rate disbursing 80% to the investors and 20% to the hedge fund management team. Thus, for example, if the hurdle rate were set at 8% and the fund returned 18% net of management fees then investors would receive 100% of 8% plus 80% of 18% - 8%, i.e. 80% of 10% = 8% for a total return of 16%.

More recently we have seen the arrival of alternative instruments to hedge funds that purport to replicate traditional hedge strategies such as global macro, long-short and convertible arbitrage through structured products. A structured product is essentially a

fixed income instrument – usually a long-term investment grade bond issued by a financial institution or supranational entity – with a payoff structure linked to the performance of one or more underlying assets. Structured products have been in use for some time as a means to obtain very precise risk-return positioning using a range of assets. Whether or not structured products can adequately deliver consistent hedge fund-like performance in complex low-volatility alternative strategies remains to be seen, as the track records of most offerings are too short for meaningful evaluation.

Conclusions

Alternative assets are an important component of well-diversified investment portfolios. Because they tend to have low correlation to both equity and fixed income securities alternative assets can reduce the portfolio's overall risk level by helping reduce the likelihood that a negative external force will affect all assets in the portfolio in the same way, at the same time. Some alternative assets exhibit risk-return properties closer to fixed income while others have a higher volatility level similar to equities. Both low and high volatility alternatives have a potential role in portfolios containing fixed income and equity components. Alternative asset vehicles include traditional mutual funds, exchange traded funds (ETFs), private money managers, synthetic structured products and hedge funds. Hedge funds are typically not registered, are appropriate only for certain types of investors and have a fee structure that includes a performance component whereby investors share profits with the fund managers.

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MV Capital Management

MV Capital Management, Inc.
4520 East West Highway, Suite 400
Bethesda, MD 20814
www.mvfgroup.com
(301) 656-6545 tel
(301) 656-2722 fax

Masood Vojdani, *President*
Katrina V. Lamb, CFA, *Senior Investment Analyst*
D. Thayer Gallison, *Investment Analyst*

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