



# Managed Futures and Diversification

By Paul Moran

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# Managed Futures and Diversification

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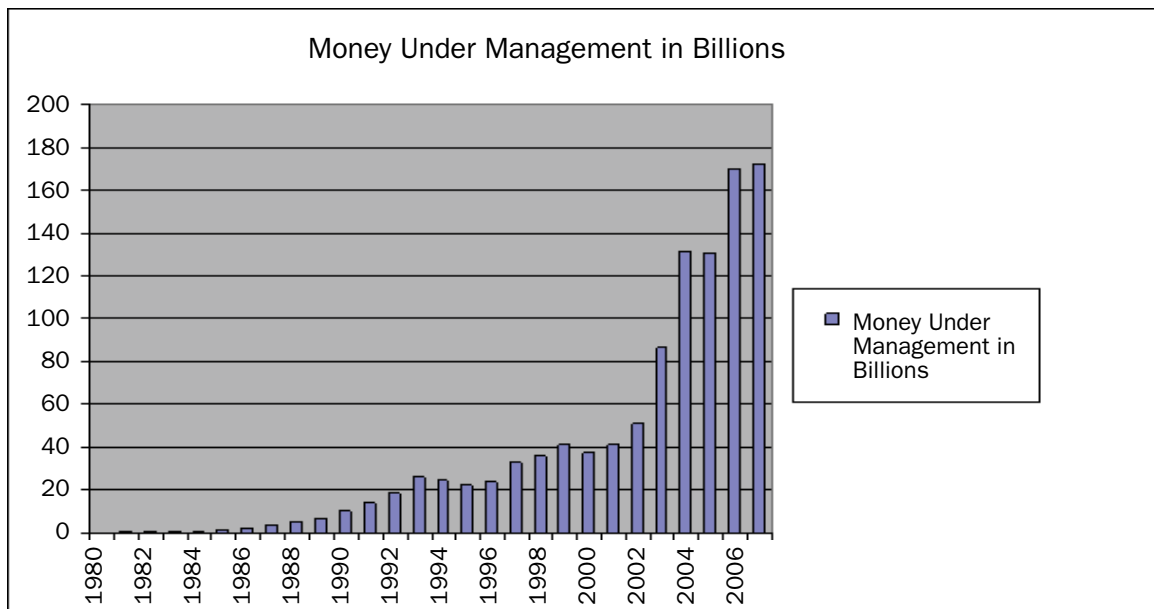
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# Managed Futures and Diversification

## An Introduction

The term 'managed futures' describes an industry comprised of professional money managers who manage assets on behalf of their clients. These money managers are also known as Commodity Trading Advisors, or CTAs. Using the global futures markets, they implement their systems to take positions based on expected profit potential. As an asset class, managed futures are increasingly being recognized as an important investment alternative that may potentially enhance the returns and lower the overall volatility of a diversified investment portfolio.

According to the Chicago Board of Trade, in 2002 an estimated \$45 billion was under management by trading advisors. Just two years later in a study released by the Barclay Group, money under management during the 4th quarter 2004 had grown to \$131.9 billion. Today, that total is over \$200 billion. This exponential rate of growth has continued as asset managers globally begin to recognize the values inherent in incorporating managed futures portfolios into their overall investment portfolios.



# The 9 Key Benefits

## of Diversification into Managed Futures

The benefits derived from diversifying your overall investment portfolio by including a managed futures portfolio are well documented. These are some of the key benefits:

1. Non-correlation to traditional asset classes
2. Potential for enhanced portfolio returns
3. Opportunity for reduced portfolio volatility risk
4. Opportunities in both bull and bear markets
5. Ability to profit independent of the economic environment
6. Can be employed as an inflation or deflation hedge
7. Provides global diversification into array of liquid markets
8. Futures industry is stable and transparent
9. Potential tax benefits versus stocks

By their very nature, managed futures are a diversified investment opportunity encompassing a vast array of commodities. Trading advisors have the ability to invest in over 150 different markets worldwide. Additional diversification benefits are achieved by using multiple trading strategies or advisors that have proven their superior trading techniques over time. Defining these benefits helps to explain how managed futures can be utilized to achieve a variety of investment goals and objectives for portfolio diversification.

# Portfolio Diversification:

## Non-correlation to traditional asset classes

The primary benefit of adding an allocation of managed futures to a diversified investment portfolio is that it may decrease overall portfolio volatility risk.

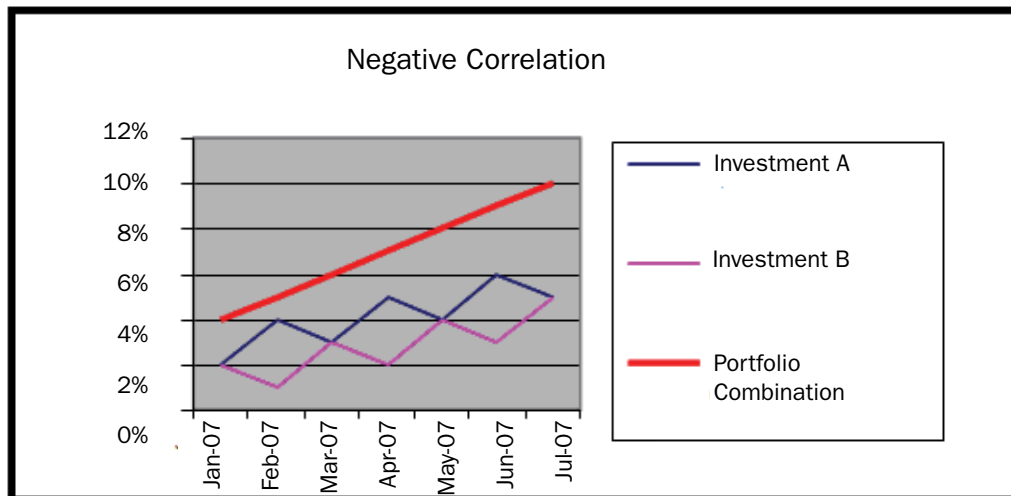
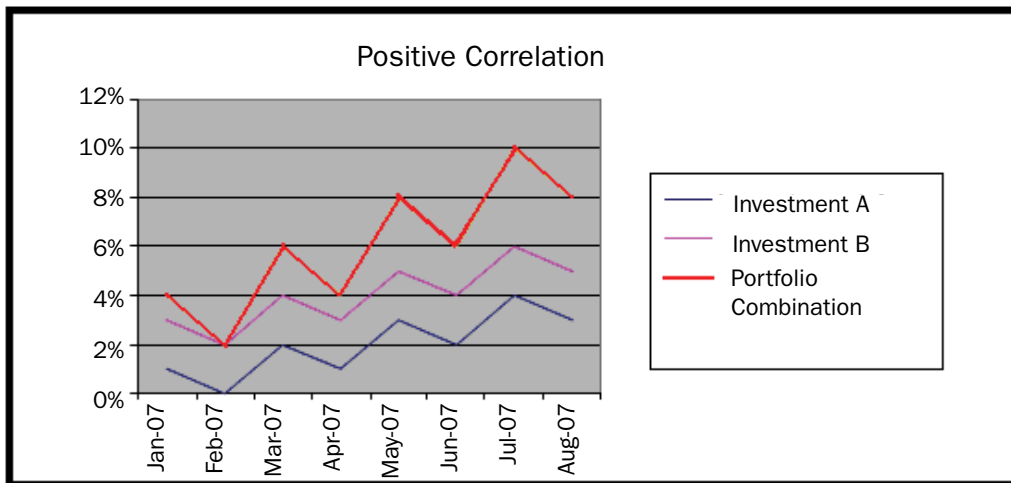
Correlation Analysis (Jan. 1980 - Mar. 2004)			
	Managed Futures	U.S. Stocks	U.S. Bonds
Managed Futures	1.00	-0.02	0.07
U.S. Stocks		1.00	0.22
U.S. Bonds			1.00

The potential to reduce risk is possible due to the low to slightly negative correlation of managed futures to traditional asset classes, such as stocks and bonds. One of the key tenets of Modern Portfolio Theory, as developed by Nobel Prize economist Dr. Harry Markowitz, is that more efficient investment portfolios can be created by diversifying among asset classes with low to negative correlations.

Managed futures investments have historically performed independently of traditional investments, such as stocks and bonds. This is referred to as non-correlation or the potential for managed futures to perform well regardless of whether traditional markets such as stocks and bonds are rising or falling.

The non-correlation of managed futures with traditional asset classes allows portfolio volatility to be reduced by their inclusion in an overall balanced investment portfolio. While there exists a common misconception that futures are highly volatile and risky, adding managed futures as a component to a diversified investment portfolio may actually decrease volatility and increase returns in a portfolio as a whole.

# Non-correlation to traditional asset classes



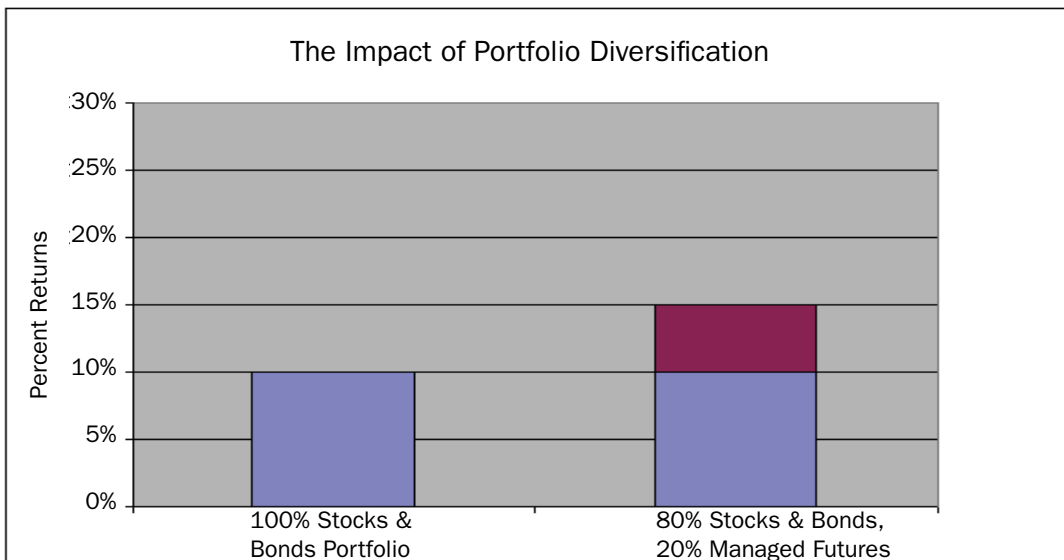
Further evidence of the ability of managed futures to enhance the returns of traditional investments has been documented in a study undertaken by Northern Trust. In Northern Trust's January 2007 report "Wealth in America 2007, Findings from a Survey of Millionaire Households" the key findings stated:

"Nearly half (45%) of millionaires have 10% or more invested in alternative assets; of these, 53% cited improved portfolio diversification as the main reason they have made such a significant allocation to alternatives. Another 34% cited the attraction of higher returns as the main reason for making significant investments in alternatives."

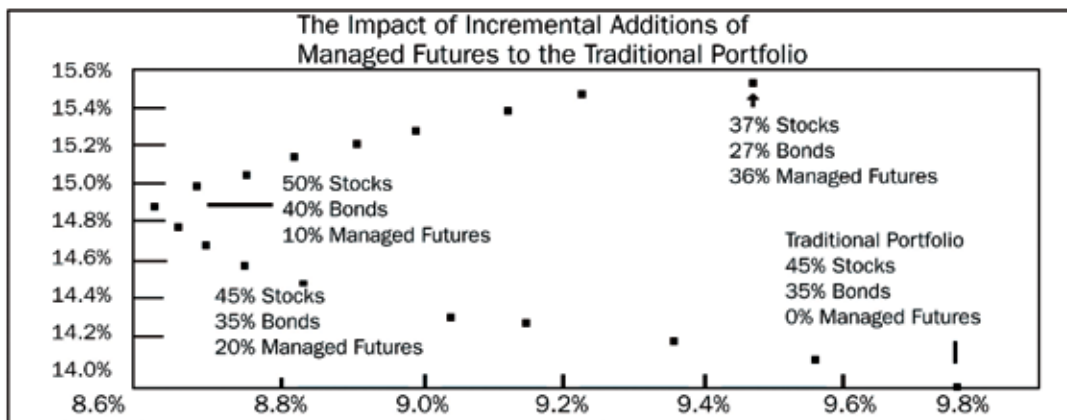
# Portfolio Diversification:

## Potential for enhanced portfolio returns

Does the addition of a managed futures component to a portfolio enhance overall returns? The Chicago Board of Trade’s booklet, “Managed Futures, Portfolio Diversification Opportunities,” shows a portfolio with the greatest risk and least returns comprised of 55% stocks, 45% bonds, and 0% managed futures, while a portfolio exhibiting the greatest returns and least risk was comprised of 45% stocks, 35% bonds, and 20% managed futures.



Past performance is not necessarily indicative of future results. The following chart shows the return expectancy curve generated by the addition of managed futures to a traditional portfolio:



# Potential for enhanced portfolio returns

Following is a hypothetical example of a managed futures component within a portfolio:

The following hypothetical example should assist in better understanding how a relatively small investment in managed futures can enhance overall portfolio performance:

A \$500,000 portfolio of stocks and bonds only returning a 10% profit would yield total profits of \$50,000.

Now let's assume your total portfolio is \$500,000 and you invest 80% in stocks and bonds (\$400,000) and 20% in Managed Futures (\$100,000). Let's assume at the end of the year you realize a 10% return on your stocks and bonds and a 25% return on managed futures. The result would be as follows:

\$500,000 Portfolio % of Portfolio Return

Stocks & Bonds \$ 400,000: 80% allocation = 10% Profit \$40,000.

Managed Futures \$ 100,000: 20% allocation = 25% Profit \$25,000.

Total Profit \$ 65,000

Now let's assume you earn 10% on the 80% of your portfolio invested in stocks and bonds, but lose 10% in Managed Futures. The results would be as follows:

\$500,000 Portfolio % of Portfolio Return

Stocks & Bonds \$ 400,000 80% allocation 10% Profit \$40,000

Managed Futures \$ 100,000 20% allocation 10% Loss (\$10,000)

Total Profit \$30,000

As evidenced in the hypothetical example shown above, by investing just 20% of your portfolio in futures the overall portfolio performance was significantly enhanced on a percentage weighted basis.

You can also see that a 10% loss in managed futures would still leave you with a net profit of \$30,000 if your stock and bond allocation returned 10%.

*Important Disclaimer:*

*The above hypothetical example is strictly for illustration purposes only, to help you better understand the potential impact of portfolio diversification. In no way is the example to be construed as the returns you might receive in stocks and commodities. Of course, in actual investing, your results can be better or worse. The risk of loss exists in futures trading.*

# Portfolio Diversification:

## Opportunity for reduced portfolio volatility risk

Investors can utilize managed futures with a view to reducing volatility in their overall investment portfolio. There's a low correlation between the performance of managed futures and stock prices or interest rates.

Through a managed futures investment, investors have access to futures markets around the globe. Many of these markets are now electronically traded and offer sophisticated risk management tools. CTAs trade a host of liquid global markets ranging from currencies to stock indices, agricultural commodities, precious metals, base metals, interest rate products and so on.

Unlike other asset classes, where profits depend solely on price appreciation, opportunities in commodity futures trading exist in both rising and falling markets. Option strategies can also be employed by CTAs seeking better returns.

Thomas Schneeweis, Professor of Finance at the Center for International Securities and Derivatives Markets (CISDM) at the University of Massachusetts, Amherst released a benchmark study in June 2002 titled "The Benefits of Managed Futures" which supported use of managed futures as a way to reduce portfolio volatility risk. It states that managed futures

- (1) enhance portfolio returns in economic environments in which traditional stock and bond investment media offer limited opportunities and
- (2) participate in a wide variety of new financial products and markets not available in traditional investor products.

In his conclusion Professor Schneeweis wrote, "Thus managed futures are shown on average to have a low return correlation with traditional stock and bond markets as well as many hedge fund strategies and to offer investors the potential for reduced portfolio risk and enhance investment return. As important for properly constructed portfolios, managed futures are also shown to offer unique downside risk control with upside return potential.

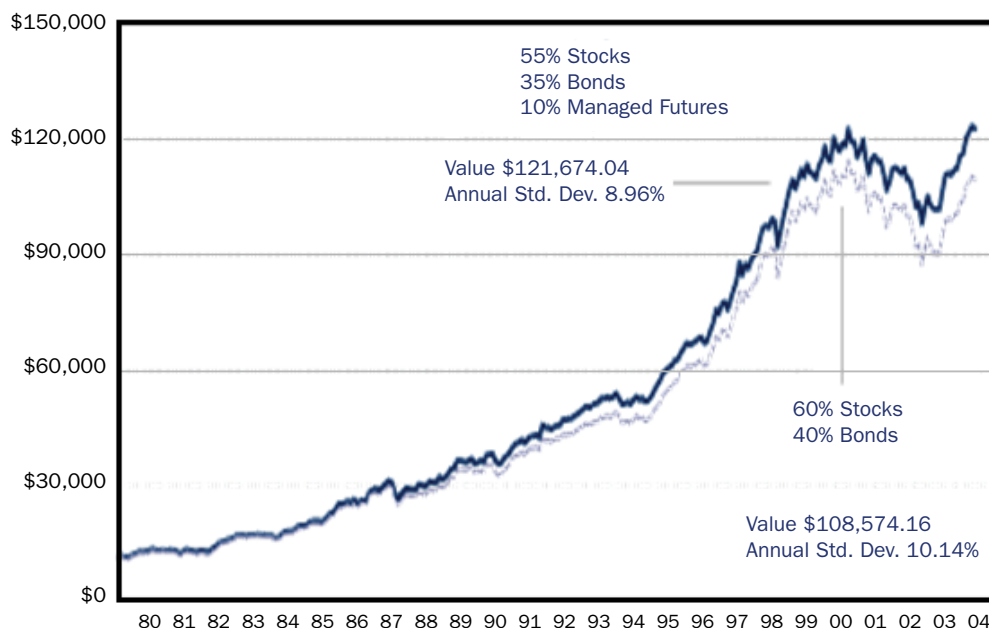
Simply put, the logical extension of using investment managers with specialized knowledge of traditional markets to obtain maximum return/risk tradeoffs is to add specialized managers who can obtain the unique returns in market conditions and types of securities not generally available to traditional asset managers; that is, managed futures."

# Portfolio Diversification:

## Opportunities in both bull and bear markets

Managed futures can take advantage of price trends no matter which direction the markets move, and thus can generate positive returns even in a volatile economic environment that can cause stress to a typical stock and bond portfolio. With the combined potential for decreased portfolio risk and enhanced portfolio performance, managed futures are not only an attractive stand alone investment but in recent years are becoming a very attractive addition to global asset management portfolios. They also hold the unique potential of improving the overall investment quality of that portfolio. This potential has been further substantiated by the landmark study of Dr. John Lintner of Harvard University, in which he noted that “the combined portfolios of stocks (stocks and bonds) after including judicious investments...in leveraged managed futures accounts show substantially less risk at every possible level of expected return than portfolios of stocks (or stocks and bonds) alone.”

Value of an Initial \$10,000 Portfolio with a 10% Allocation to Managed Futures vs. a Traditional Stock and bond Portfolio



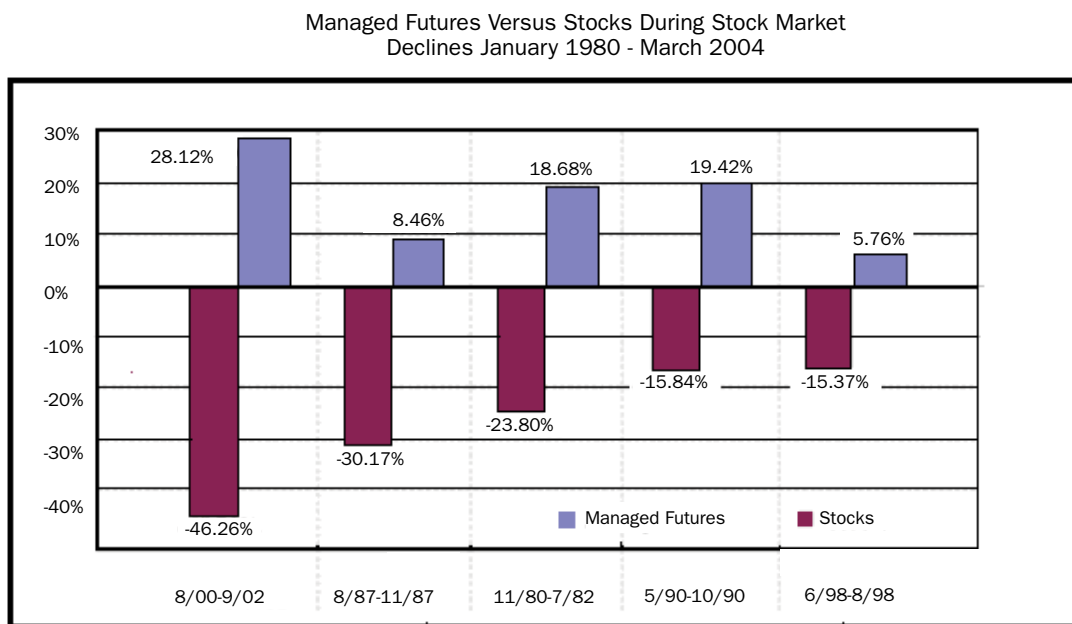
Source Data: Managed Futures: CISDM Managed Futures Index; U.S. Stocks: S&P 500 Index; U.S. Bonds: Lehman Brothers Aggregate Bond Index January 1980 - March 2004.

*Investing in managed futures is speculative, involves a high degree of risk, and is not suitable for all investors. Past performance is not necessarily indicative of future results.*

# Portfolio Diversification:

## Ability to profit independent of the economic environment

This bar chart shows the comparison between the performance of managed futures and stocks during the five worst declines in U.S. stocks as represented by the S&P 500 index.



The data above supports the benefits of non-correlation which are inherent in managed futures portfolios and which also highlight the ability to profit independent of the economic environment. The pie chart information was derived from the Barclays study which shows the performances of selected asset classes, the worst case declines, and how managed futures performed over the period of the study.

Source: Barclays Group

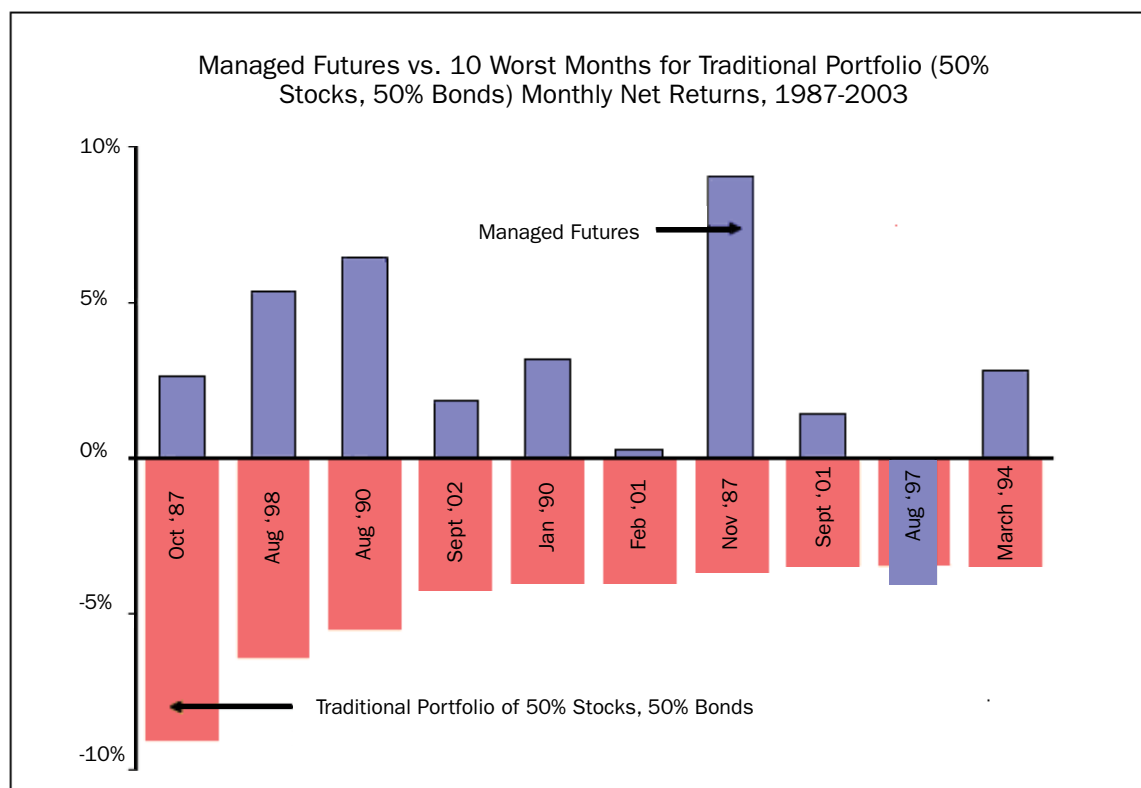
# Portfolio Diversification:

## Managed futures employed as an inflation/deflation hedge

Managed futures trading programs can be designed to profit from major shifts in commodity asset prices and can act as an effective inflation or deflation hedge. The following chart ranks the ten worst months experienced by the equity and debt markets from 1987 to 2003.

The blue bars shows the performance of CISDM Trading Advisor Qualified Universe Index (formerly known as the MAR Index). This established index tracks the managed futures industry and the peach bars show the performance of a traditional portfolio comprised of 50% stock and 50% bonds.

The chart reveals that managed futures produced positive returns in 9 of the 10 periods. This result clearly demonstrates the true diversification provided by managed futures during the investors' greatest time of need.



Source: Center for International Study of Derivative Markets

# Portfolio Diversification:

## Global diversification in liquid markets

A successful managed futures trading advisor has the flexibility to go long or short with the markets. They can buy futures in anticipation of a rising market or sell futures in anticipation of a falling market, generating greater potential for profit regardless of current market conditions. With the advent of ever improving technologies came increasing access to a host of global futures exchanges which in turn allows managed futures trading advisors to diversify their trading systems by participating in over 150 different markets worldwide.

These markets include currencies, stock indices, financials, agricultural products, precious metals, energy products and more. As a result, managed futures trading advisors have an extraordinary variety of venues and opportunities for profit potential and risk reduction through an array of non-correlated markets.

The table shows the explosive growth in global futures and options volume in selected markets over a one-year time frame in millions of contracts and the percent change in volumes over that short period. Final futures trading volume for 2007 are expected to exceed 12 million contracts.

Global Futures and Options Volume by Sector			
In millions of contracts			
Sector	Jan-Oct 2006	Jan-Oct 2005	%Change
Equity Index	3,764.71	3,377.06	11.5%
Interest Rate	2,708.64	2,129.98	27.2%
Individual Equity	2,380.84	1,945.94	22.3%
Agriculture	349.12	275.07	26.9%
Energy	321.85	234.15	37.5%
Foreign Currency	195.12	132.24	47.5%
Non-Precious Metals	97.34	80.77	20.5%
Precious Metals	84.72	47.68	77.7%
Other	1.59	1.39	14.0%
Total	9,903.92	8,224.29	20.4%

Source: *Industry Futures.org*



# Portfolio Diversification:

## Stability and transparency of the global industry

Managed futures accounts, like all other accounts of customers doing business through a U.S. exchange, must be executed by and carried on the books of a “clearing member” (a brokerage firm or FCM that holds a membership in an exchange’s clearing organization). Once a trade between two clearing members is matched by the exchange, the rights and obligations under the futures or options contract do not run between the original buyer and seller; instead, they are between the seller and the clearing organization.

An exchange’s clearing organization guarantees performance on every contract to each of its clearing members

Although each exchange’s clearing function operates somewhat differently, at minimum they all ensure that there are sufficient resources to meet obligations by:

- (1) collecting performance bonds;
- (2) marking contracts to the market at least once daily; and
- (3) establishing capital requirements and maintaining minimum financial standards for clearing members.

# Portfolio Diversification:

## Potential tax benefits versus stocks

According to the Tax Act of 1981, short-term profits in futures are treated as 60% long-term (therefore being subject to a maximum tax of 15%), and 40% short-term (normal taxable income). On the other hand, short-term trading profits in stocks (stocks held less than one year) are treated as 100% short-term.

This favorable tax treatment for futures can translate for those in the upper tax brackets, saving as much as 30% on taxes on short-term gains in futures versus stocks. Alternative investments such as Managed Futures are not suitable for all investors.

PFGBEST.com recommends managed futures should only be used with speculative capital, and that the investment not exceed 20% of investable assets or 10% of a client's overall net worth.

It is strongly recommended that any investment tax considerations should be reviewed with a qualified tax professional prior to investing.

# The Structure of Managed Futures

There are several types of industry participants in the managed futures sector.

- Commodity Trading Advisors (CTAs) are responsible for the actual trading decisions and activity of a managed futures account.
- Commodity Pool Operators (CPOs) assemble public funds or private pools, usually in the form of limited partnerships, and select the trading advisors.
- Futures Commission Merchants (FCMs) are the brokerage firms that execute and clear CTA-directed trades on various exchanges.

Managed futures advisors and investors benefit from the structural efficiencies of the futures markets. Notable efficiencies include:

1. Deep liquidity
2. Use of leverage
3. Lower transaction costs
4. Liquidity/rapid execution
5. Opportunity in rising, falling, or trend-less markets, and
6. Value capture in the market

# Portfolio Component Comparisons

How do stocks, bonds and hedge funds fare as investment vehicles as opposed to stocks, bonds and managed futures?

Why should I consider adding managed futures to my overall portfolio?

Many investors share the common misconception that hedge funds offer investors the best of both worlds, namely expectations of returns similar to equities combined with risk parameters normally associated with bonds. In 2003, the Journal of Investment Management published an article titled “Stocks, Bonds and Hedge Funds: Not a Free Lunch!” The author of the article, Mr. Harry Kat of the Cass Business School in London, showed that although including hedge funds in a traditional investment portfolio may significantly improve that portfolio’s mean variance characteristics, it can also be expected to lead to significantly lower skewness. Skewness is a statistical term used to describe a situation’s asymmetry in relation to a normal distribution. Later, in the winter of 2003, Mr. Kat published the article “Taking the Sting Out of Hedge Funds” in which he stated, “Although the inclusion of hedge funds in an investment portfolio can significantly improve that portfolio’s mean-variance characteristics, it can also be expected to lead to significantly lower skewness and higher kurtosis.”

In this article, the author shows how this highly undesirable side effect can be neutralized by allocating a fraction of wealth to out-of-the-money put options on the relevant stock index. Roughly speaking, the costs of the proposed skewness reduction strategy will be higher 1) the higher the hedge fund allocation, 2) the lower the expected equity risk premium, and 3) the higher the bond allocation relative to the equity allocation.

In the current low interest rate environment, for portfolios with a more or less equal allocation to stocks and bonds, the costs of skewness reduction are unlikely to be much higher than 1% per annum. For portfolios with relatively high bond allocations, however, the costs could amount to 3% or even more. This confirms that the benefits of hedge funds heavily depend on the portfolio they are added to and that the attractive mean-variance properties of (portfolios including) hedge funds may come at a significant price.

# Managed Futures and Diversification

## Conclusion

Mr. Kat furthers this research in another report, “Managed Futures and Hedge Funds: A Match Made In Heaven,” from the Journal of Investment Management (2004). He wrote, “We find that allocating to managed futures allows investors to achieve a very substantial degree of overall risk reduction, in terms of expected return, relatively limited costs. Apart from their lower expected return, managed futures appear to be more effective diversifiers than hedge funds. Adding managed futures to a portfolio of stocks and bonds will reduce that portfolio’s standard deviation more and quicker than hedge funds will, and without the undesirable side effects on skewness and kurtosis. The overall portfolio standard deviation can be reduced further by combining both hedge funds and managed futures with stocks and bonds. As long as at least 45–50% of the alternatives allocation is allocated to managed futures, this will have no negative side effects on skewness and kurtosis.”

### Conclusion

Thank you for taking the time to review this material. We hope it is useful to you. The PFGBEST.com Managed Futures Division continues to enhance its long-term relationships with the top performing CTAs globally, while simultaneously engaging in the search for new, emerging CTA talent via The PFGBEST.com CTA Challenge. PFGBEST.com continually reviews the qualifications of the top trading advisors and will gladly assist you in selecting the right match for your particular account size, risk tolerance, market focus and trading style. To learn more about the trading results, styles, and strategies of recommended advisors in managed futures and to request information on other fund products from PFGBEST.com, please contact:

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There is a substantial risk of loss in trading commodity futures, options and foreign exchange products.

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