

What Do Studies Say About Managed Futures?

"Portfolios...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."

*Dr. John Lintner
Harvard University*

The Landmark Lintner Study: Historical Perspective

In 1983, Prof. John V. Lintner of Harvard University presented a paper, "The Potential Role of Managed Commodity-Financial Futures Accounts (and/or Funds) in Portfolios of Stocks and Bonds," to the Financial Analysts Federation. The paper stated that "the improvements from holding an efficiently-selected portfolio of managed accounts or funds are so large--and the correlation between returns on the futures portfolios and those on the stock and bond portfolio are so surprisingly low (sometimes even negative)--that the return/risk tradeoffs provided by augmented portfolios...clearly dominate the tradeoffs available from portfolio of stocks alone or from portfolios of stocks and bonds."

Using the composite performance of 15 trading advisors, Lintner showed that the return/risk ratio of a portfolio of trading advisors (or futures funds) is higher than a well-diversified stock/bond portfolio. Furthermore, he found a low correlation between the returns of trading advisors and those of stocks, bonds, or a combined stock/bond portfolio. Lintner examined the period July, 1979 through 1982.

2001 Business Week Update

A March 19, 2001 article in Business Week, "Futures Now", brought the achievements of futures funds up to date:

"Overall, the Managed Account Reports (MAR) index, which tracks these funds, rose 6.1%, a far cry from the bloodied stock market indices. ..."

"While futures funds can have severe drawdowns, "Historically, when the stock markets have been pummeled, the commodity funds have done well. For example, during the Russian debt crisis in August, 1998, U.S. stocks dropped 15%, while the average futures fund was up 6%. There were similar movements during the stock market crash of 1987, and the Persian Gulf war." Overall, the average yearly returns from futures funds fall in the mid-teens. But that doesn't mean there's a regular 1% to 1.5% return every month. Those results come in quick bursts of performance."

"Commodity futures fund investors were greatly rewarded during last year's [2000] fourth quarter. While the stock market struggled, the MAR index was up 11.7%. ...[futures funds] have made money 17 of the past 20 years. Indeed, as long as you can stand the gyrations, putting a small part of your portfolio in these funds can't hurt. And during sudden downward spirals in the stock market, such as we had last year, they could actually prove to be a saving grace."

Managed Account Reports (MAR) Follow Up on Dr. Lintner's Study

MAR is widely recognized by investment professionals as a primary source for Commodity Trading Advisor (CTA) performance statistics. Their performance analysis of CTAs and futures funds are often quoted in such financial publications as Barron's, Wall Street Journal, Forbes, Futures Magazine, and other leading financial publications.

MAR Study

MAR combined a portfolio of managed futures with a (1) portfolio of stocks, (2) a portfolio of bonds, (3) an efficiently-selected portfolio of stocks and bonds, and (4) an efficiently-selected portfolio of stocks, bonds, and treasury bills. Managed futures investments were tested in two ways, through a) futures trading advisors and b) futures funds/pools. MAR conducted the analysis for the period January, 1980 through December, 1992.

First, they evaluated the portfolios to determine if including managed futures increased the risk-adjusted rate of return. Second, they constructed assorted minimum-variance frontiers using combinations of the different asset

classes. (A minimum variance frontier is a set of portfolios that provides the *lowest standard deviation for a given return* of the various combinations).

Data

As a proxy for the stock portfolio, they used the nominal returns of the S&P 500 Index adjusted for dividends. The S&P 500 index is the dollar-weighted portfolio of 500 large U.S. corporations.

They used the nominal returns on the Lehman Government Bond Index as a proxy for the bond portfolio. This index is a dollar-weighted index of treasury and government-agency bonds with maturities greater than one year.

For managed futures, they first used a portfolio of trading advisors - the *MAR* Trading Advisor Qualified Universe Index, a dollar-weighted index of trading advisors that *MAR* tracks currently and has tracked historically. At year-end 1992, 290 trading advisors were in the index. The number of trading advisors in the index fluctuates each month as new trading advisors meet the qualifications for inclusion or as other trading advisors retire.

Another proxy used for managed futures was a portfolio of futures funds/private pools. Here they used the *MAR* Fund/Pool Qualified Universe Index, a dollar-weighted index of public funds and private pools that *MAR* currently tracks or has tracked in the past. At year-end 1992, 452 funds/pools were in the index.

For cash, they used the average monthly return on the three-month treasury bill.

Differences with the Lintner Study

A key difference between *MAR*'s study and Lintner's is that Lintner selected 15 advisors and allocated assets efficiently between them. *MAR*, however, used a qualified universe of 290 advisors. We believe the latter is more representative of the performance of trading advisors as a whole and cannot be criticized as having selection bias. Another important difference is that Lintner looked at the enhanced return per unit of risk. In the *MAR* study more emphasis was placed on risk-reduction.

Finally, Lintner examined the period July, 1979 through December, 1982. *MAR*'s analysis covered the period January, 1980 to December 1992, a much longer and more recent time period.

Conclusions of *MAR* Study in Other Securities Combinations with Managed Futures

Managed Futures in a Portfolio of Government Bonds

"An efficiently-allocated portfolio consisting of managed futures and bonds should provide a better reward/risk ratio than an investment in bonds alone." Ideal combination for risk reduction is 91% bonds/9% managed futures.

Managed Futures in a Portfolio of Stocks and Bonds

"By allocating about 14% of the assets to managed futures, we get a 14.6% reduction in standard deviation. Further, we see that for all available levels of returns in an efficiently - allocated stock/bond portfolio, the inclusion of managed futures lowers the standard deviation - offering better return/risk characteristics."

Managed Futures in a Portfolio of Stocks, Bonds, and Treasury Bills

"An efficient allocation of assets between stocks, bonds, Treasury Bills, and managed futures (7% to managed futures) reduces the risk for a given level of return over an efficiently - allocated portfolio of stocks, bonds, and treasury bills.

Summary of *MAR* Findings

"We concluded that the inclusion of managed futures in a traditional portfolio of stocks, bonds, and treasury bills consistently lowered the standard deviation for a given return."

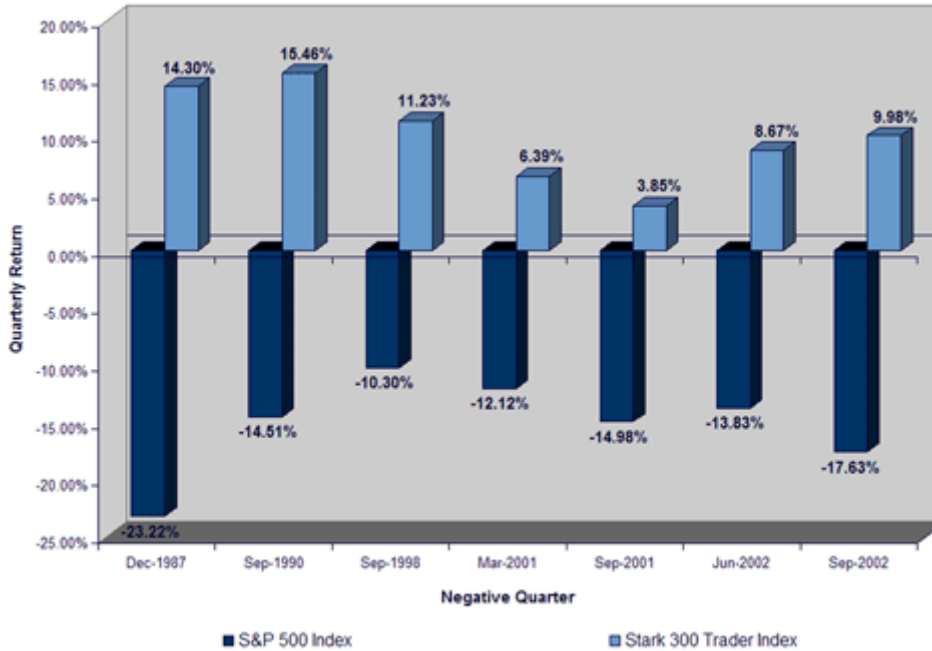
Source: Article courtesy of *Managed Account Reports, Inc.*

More Compelling Evidence for Managed Futures

Figure 1 below illustrates how the Stark 300 performed when the S&P 500 had losses of more than 10% in any quarter in the period December 1987 to September 2001. Stark 300 represents the top 300 Commodity Trading Advisors by capital under management. The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation.

The Stark 300 Trader Index shows the consistent ability to produce above average returns when the S&P 500 Index suffers its greatest losses. In every instance from 1987-2001, when the S&P 500 Index suffered a quarterly loss of over 10%, the Stark 300 generated a significant positive return.

Figure 1: Stark 300 Return When S&P 500 Loses More Than 10% in a Quarter

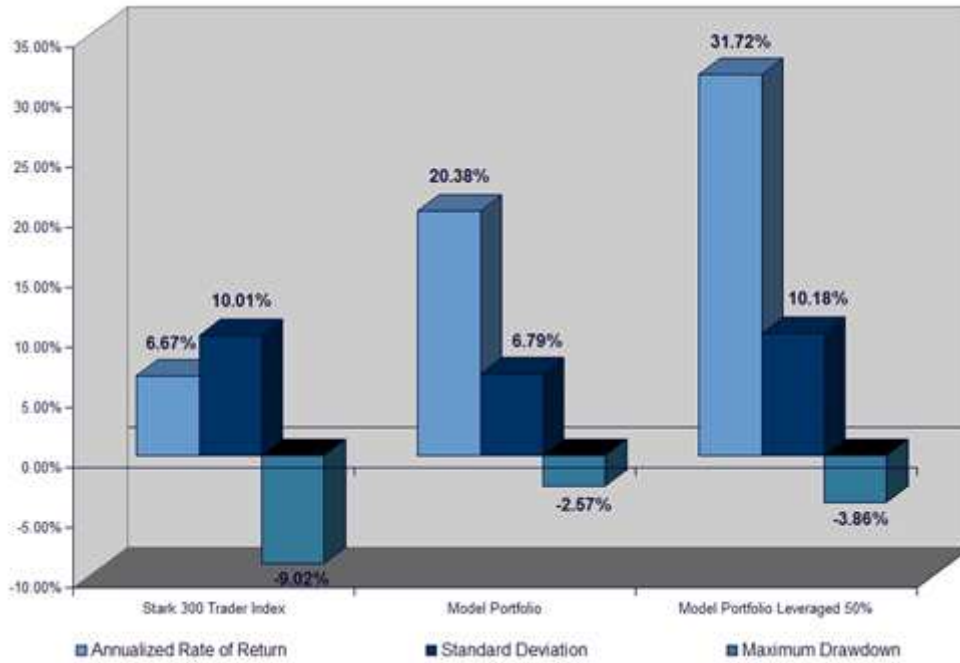


[Enlarge Figure 1](#)

The ability to lower risk on a portfolio while enhancing the overall return.

Figure 2 demonstrates that by combining non-correlated managers, it is possible to significantly lower risk at the portfolio level. This allows for the use of leverage in an attempt to maintain a consistently above average return.

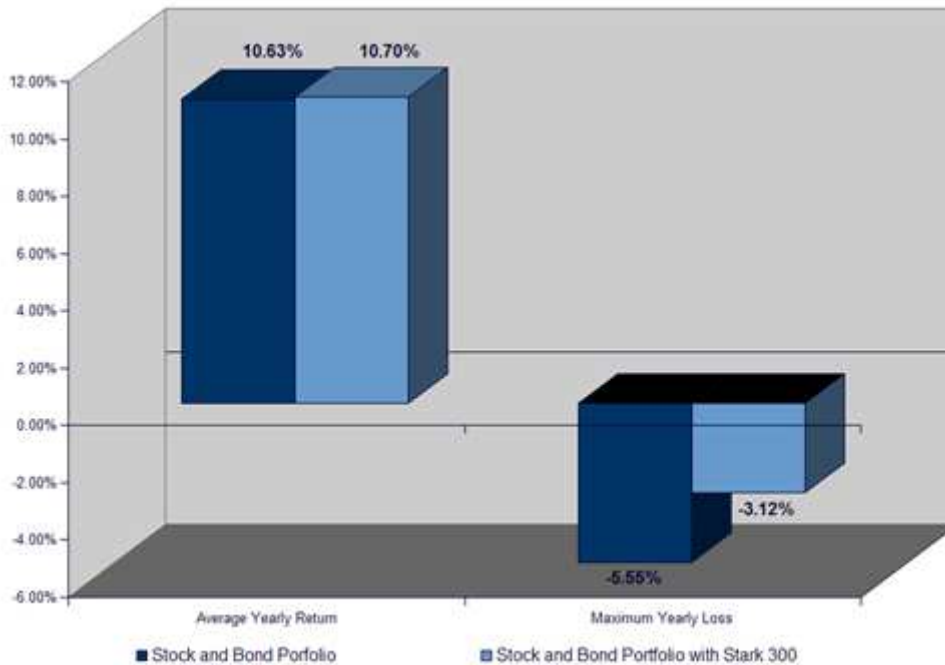
Figure 2: Figure 2: Enhancing Returns with Leverage While Still Managing Downside Risk



[Enlarge Figure 2](#)

The ability to significantly reduce drawdowns (losses), while enhancing returns during periods of low inflation and above average returns in stocks and bonds. 1987 through 2001 was a period of low inflation and above average returns in stocks and bonds. During this period, adding the Stark 300 to a typical portfolio, raised returns slightly while significantly reducing drawdowns.

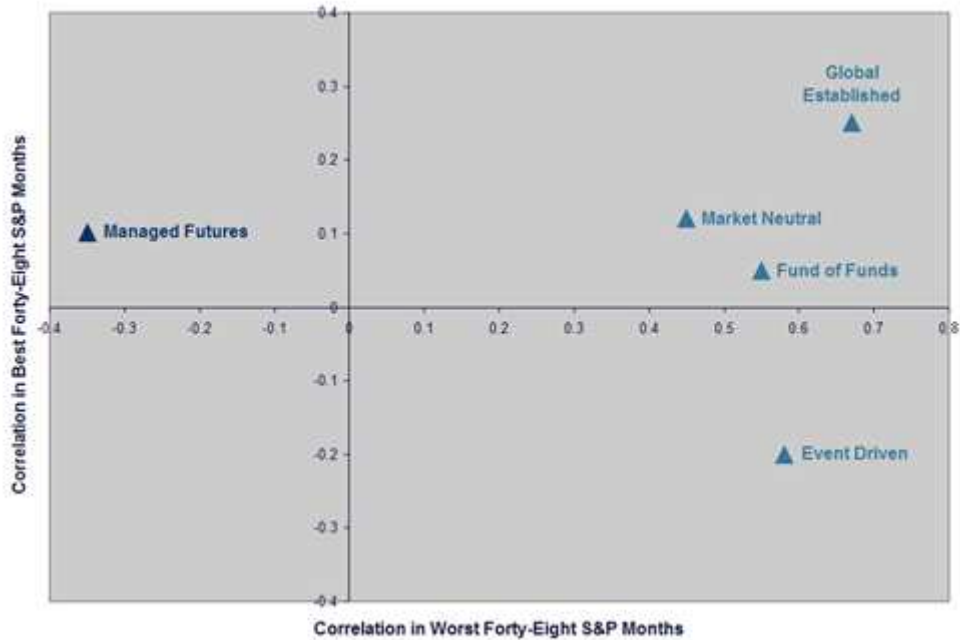
Figure 3: Reducing Risk by Adding Stark 300 Trader Index to Traditional Portfolio



[Enlarge Figure 3](#)

Non-correlation to the share market, and other forms of investment. This has benefits when markets are rising. It creates considerable enhancement and benefits when markets are falling. Figure 4 illustrates how professionally managed futures funds are non-correlated to the other forms of investments in the stock market in relation to the best and worst months of the S&P500.

Figure 4: Correlations in Best and Worst Forth-Eight S&P 500 Ranked Months (1990-2001)



Source: Thomas Schneeweis, University of Massachusetts

[Enlarge Figure 4](#)

This graph demonstrates that when the S&P 500 had its worst-performing 48 months, on average, Managed Futures Funds had positive profit.

Independent Research on Managed Futures



The ability of futures to enhance the returns of traditional investments has been documented in a study conducted by Goldman Sachs. Covering a 25-year period, the study concluded that by "allocating only 10% of a securities portfolio to commodities, investors can vastly improve their performance." Goldman Sachs' conclusion, concerning the value of commodities, was supported by another study published by the Chicago Mercantile Exchange (CME), one of the world's pre-eminent futures exchanges. According to the CME study, "Portfolios with as much as 20% of assets in managed futures yield up to 50% more than a portfolio of stocks and bonds alone.

Additional Educational Information

For more information about managed futures, click the links below to receive instant access to these educational PDFs.

[Managed Futures: Portfolio Diversification Opportunities](#)
Compliments of the Chicago Board of Trade

[Exchange Traded Derivatives in a Professionally Managed Portfolio](#)
Compliments of the Chicago Mercantile Exchange

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